

The impact of international investment agreements on foreign direct investment in Africa

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DEDICATION

This piece of work is dedicated to my mother, ***Jean-Francis Leinyuy***, my greatest source of inspiration.

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ABSTRACT

Interest in foreign direct investment (FDI) stems from the fact that it has become one of the most important components of globalisation and a vital part of international economic and diplomatic relations. It rose to prominence after World War II to become an indispensable source of foreign finance globally, and has remained crucial for technology spillover, employment creation and economic growth in developing nations. One of the most common approaches that countries use to attract FDI has been through international investment agreements (IIAs), since they are theoretically hypothesised to provide an effective means for its inflows. In spite of the popularity of such IIAs in Africa, there are not many studies on their effectiveness in attracting FDI. This is the gap that this study has sought to surmount in order to advance recommendations that can guide policymakers on how to make decisions on investment treaties.

To this end, the study aims to investigate factors that determine the treaty signing proclivity of African countries in the first part. It also aimed to assess the impact of IIAs and the role of the investment climate in mediating the relationship between IIAs and FDI in 50 African countries over the period 2000 to 2018. An aggregative measure of bilateral investment treaties (BITs)s was employed in the first phase, and dummy variables were used in capturing the presence of BITs with top investing countries in the continent and treaties with investment provisions (TIPs). Data on BITs and TIPs were collected from Policyhub, while data on FDI and control variables were collected from the United Nations Conference on Trade and Development and the world development indicators respectively. A one-way error components model was used to estimate the determinants of treaty signing proclivity, while the two-step generalized method of moments (GMM) was used within a monadic framework to examine the impact of IIAs on FDI in Africa.

Results showed that combinations of poor institutional factors and market size were nontrivial determinants of investment treaty participation. Further results underscored the importance of bilateral investment treaties (BITs) in attracting FDI and also demonstrated their potency in landlocked and least developed countries (LDCs). Therefore, BITs meet their intended purpose of signalling, which translates into increased FDI. This effect is expected to significantly vary across African countries and the study recommends a few right BITs due to potential diminishing returns, among which those with the USA, South Africa and France can potentially have beneficial effects.

Results regarding the impact of treaties with investment provisions (TIPs) showed that the effects of membership with the African Growth and Opportunity Act (AGOA) on FDI were contingent on market size and availability of good institutions. The effect of WTO accession on FDI was also contingent on the quality of institutions. The study also found robust evidence that different political institutions had varying effects on a country's attractiveness to FDI and that BITs significantly substituted for weak

political institutions. Therefore, IIAs are an important part of increasing FDI share in Africa because of the incentives they provide through the augmentation of the investment climate that has a strong signalling impact on foreign investors. However, countries should consider flexible IIAs that allow them to pursue their local development policies without interference.

Keywords: International investment agreements, bilateral investment treaties, Treaties with investment provisions, Investment climate, Foreign direct investment, Panel data, GMM

LIST OF ABBREVIATIONS AND ACRONYMS

Abbreviation	Definition
ACP	African, Caribbean and Pacific
AfCFTA	African Continental Free Trade Area
AFTA	ASEAN Free Trade Area
AGOA	African Growth and Opportunity Act
AID	Foreign Aid
AIDS	Acquired Immune Deficiency Syndrome
ANDEAN	Free Trade Area between Bolivia, Colombia, Ecuador & Peru
APEC	Asia Pacific Economic Cooperation
AR	Autoregressive Model
ASEAN	Association of South-east Asian Nations
AU	African Union
AUC	The African Union Commission
BIT	Bilateral Investment Treaty
CAC	Central African Countries
CAL	Capital Allocation Line
CAR	Central African Republic
CARICOM	The Caribbean Community
CEMAC	Central African Economic and Monetary Community
CEPGL	Economic Community of the Great Lakes Countries
CIArb	The Chartered Institute of Arbitrators
COMESA	Common Market for Eastern and Southern Africa
DFID	Department of International Development
DTT	Double Taxation Treaties
EAC	East African Community
EAS	East Asia
EC	European Commission
ECA	Economic Commission for Africa
ECCAS	Economic Community of Central African States
ECGLC	Economic Community of the Great Lakes Countries
ECOWAS	Economic Community of West African States
EFTA	European Free Trade Association
EIA	Economic Integration Agreements
EME	Emerging Market Economy

EPA	Economic Partnership Agreements
EU	European Union
FCN	Friendship, Commerce and Navigation
FDI	Foreign Direct Investment
FE	Fixed-Effect
FGLS	Feasible Generalized Least Squares
FTA	Free Trade Area
G7	Group of Seven Major Developed Countries
GATT	Generalized Agreement on Tariffs and Trade
GCC	Gulf Cooperation Countries
GDP	Gross Domestic Product
GMM	Generalized Method of Moment
GNP	Gross National Product
GRETL	Gnu Regression, Econometrics and Time-series Library
GSP	Generalized System of Preferences
ICRG	The International Country Risk Guide Index
ICSID	international Centre for Settlement of Investment Disputes
ICT	Information and Communication Technology
IDP	Investment Development Path
IEA	International Energy Agency
IAs	International Investment Agreements
IMF	International Monetary Fund
IRI	Investment-related Instruments
IT	Information Technology
ITC	International Trade Centre
KMO	Kaiser-Meyer-Olkin
LCN	Latin America & the Caribbean
LDCs	Least Developed Countries
MERCOSUR	Mercado Común Sudamericano
MFN	Most Favoured Nation
MITs	Multilateral Investments Treaties
MNCs	Multinational Corporations
MNEs	Multinational Enterprises
NAFTA	North American Free Trade Area
NIEO	New International Economic Order

NOA	North African Countries
NOI	Net Outward Investment
OCT	Overseas Countries and Territories
OECD	Organisation for Economic Co-operation and Development
OIC	Organisation of Islamic Cooperation
OLI	Ownership, Location and Internalization
OLS	Ordinary Least Squares
PCA	Principal Components Analysis
PCSE	Panel-corrected Standard Error
PLWHA	People living with HIV/AIDS
PTA	Preferential Trade Agreement
PTAIPS	Preferential Trade Agreements with Investment Provisions
RE	Random Effects
REI	Regional Economic Integration
RHS	Right Hand Side
RIA	Regional Investment Agreement
RTA	Regional Trade Agreement
SA	South African
SACU	Southern African Customs Union
SADC	Southern African Development Community
SDGs	Sustainable Development Goals
SMEs	Small and Medium Size Enterprises
SSA	Sub-Saharan Africa
TI	Transparency International
TIA	Trade and Investment Agreement
TIFA	Trade and Investment Framework Agreement
TIPS	Treaties with Investment Provisions
TNC	Transnational Corporations
TSLs	Two-stage Least Squares
UAE	United Arab Emirates
UK	The United Kingdom
UMA	Arab Maghreb Union
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme

US	United States of America
VECM	Vector-error Correction Model
WAC	West African Countries
WAEMU	West African Economic and Monetary Union
WDI	World Development Indicators
WHO	World Health Organization
WIR	World Investment Report
WTO	World Trade Organisation
WWII	World War II

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1. Chapter 1 Introduction and background

1.1 Introduction

Interest in foreign direct investment (FDI) emanates from the fact that it has become one of the most important components of globalisation and a vital part of international economic and diplomatic relations. FDI rose to prominence after the Second World War to become an indispensable source of foreign finance in developing nations. It remains crucial for technology spillover, improvements in efficiency and economic growth (Bayraktar, 2013). However, the global patterns of FDI and its broader implications on economies has not always been uniform across and within regions. Even more striking is the sharp disparity of inflows into certain sectors in some developing nations. These disparities have attracted significant interest from policymakers and the academic environment, as they continue to explore better ways of facilitating its inflows to sectors with a high development impact, such as manufacturing.

The United Nations Conference on Trade and Development reported that global FDI rose from \$57 billion to \$1271 billion between 1982 and 2000, reaching a record high of \$1452 billion in 2013 (Zghidi, Sghaier & Abida, 2016). However, the witnessed increases were followed by a period of decline in the three years leading up to 2018. The global increase soon reversed and FDI persistently slid over a three-year period, which continued until 2018. As a result, developing countries accounted for 54 per cent of the overall share of global FDI in 2018 compared to 47 per cent in 2017.

In 2017, FDI into the least developed countries (LDCs) decreased by 17 per cent to a four-year low point. There was a moderate increase by 3 per cent into landlocked developing nations while small island developing countries also realised a 4 per cent increase. In Africa, the downward trend continued and FDI declined by 21 per cent. This decline was attributed to weak oil prices and the negative multiplier effects from the commodity bust that resulted in a contraction in major host nations. Despite this continuous fall in FDI over the three years, it increased by 11 per cent in 2018 (UNCTAD, 2018). This increase was due in part to resource-seeking investments and an expansion of diversified investments in some economies.

Almsafir, Nor and Al-Shibami (2011) reported that the growth of global FDI had surpassed that of trade. Consequently, many theories have been developed to explain these changing patterns of trade and FDI, and this has led to a better understanding of various economic agents that are involved in their promotion from both microeconomic and macroeconomic perspectives. Most of these studies start with basic questions, such as why do firms invest abroad, rather than outsource production or export to foreign markets (Denisia, 2010)? Initially, Ricardo's theory of comparative advantage was

employed to provide answers to such questions, though it was later abandoned because it assumed two countries and two products within the context of perfect mobile factors of production and therefore had a low predicting power, compared to other theories that were later developed.

Attempts were also made to integrate differential rates of return and the portfolio allocation theory. While the former focused on rates of return as the sole determinant of FDI location, the latter's emphasis on short-term investments such as portfolios could not explain the long-term nature of FDI, despite factoring in risk as a predictor variable. Both Robert Mundell and Kojima, with his dynamic comparative advantages, also modelled FDI using theories of international trade, but these still did not provide accurate explanations of FDI mobility.

In this regard, empirical approaches also aimed to explain global patterns of FDIs. Generally, empirical studies have established that FDI creates employment, increases productivity of firms, increases competition, leads to technology spillovers and finances heavy investment projects that are necessary for economic growth (Blomstrom, Lipsey, & Zegan, 1994; Borensztein, Gregorio, & Lee, 1998; Smarzynska, 2002; Dunning, 2000). Other studies have also found some negative consequences of FDIs. The most prominent has been its crowding out of domestic (investments) enterprises and the negative mediating effects on development (Hanson, 2001; Görg & Greenaway, 2003; Lipsey, 2004).

While the determinants of FDI may significantly vary between countries and regions, it is commonly found that market size, labour quality and macroeconomic stability are important factors that influence the global patterns of FDI flows (Suliman & Mollick, 2009; Campos & Kinoshita, 2010; Büthe & Milner, 2008). Schneider and Frey (1985) use a politico-economic model and find that higher real per capita GNP, more bilateral aid from Western countries and lower balance of payments were significant determinants of FDI. Similar studies focusing on Africa, however, found that natural resource abundance has been one of the most cited drivers of FDI (Asiedu, 2013; Anyanwu, 2012; Asiedu, 2006; Botrić & Škuflić, 2006). In 2013, for instance, FDI to resource-rich SSA accounted for 95-per cent of the increase in FDI. Countries such as Nigeria, South Africa, Angola and Mozambique who together account for almost three-quarters of Africa's commodity export also received approximately three-quarters of the African FDI inflows between 2001 and 2007 (Kafayat Amusa, 2016). Although the natural resources sector is still vibrant in terms of FDI inflows, there has recently been an impressive level of diversification into other sectors of the economy in Africa and consequently an emerging pattern of FDI into Africa that is generating a burgeoning research interest on the new determinants of Africa's FDI inflows besides the traditional focus on natural resources.

Because of the changing global economic landscape, African nations are increasingly invigorating their industrial policies. These are aimed at facilitating a transition towards new sectors and activities

with higher productivity and more value added, while fostering sustainable and inclusive development (WIR, 2018). A case in point is the establishment of Rwanda's first ever gold refinery in 2019, expected to add value to minerals before exportation. These are happening as a consequence of structural reforms that aimed to change the institutional and regulatory frameworks that previously hindered a diversified investment stream.

An emerging trend suggests improvements in diversified investments into Africa. These are due in part to the inundation of Chinese investments that is spearheading the drive to diversify it from traditional sectors. The service sector, for instance, accounted for approximately three-quarters of Greenfield FDI projects in 2016, while manufacturing accounted for approximately one-fifth. The shifting of light manufacturing from emerging countries such as China, the developments of Special Economic Zones (Mauritius, Senegal) and improved investment policy regimes (e.g. tax incentives in Tunisia and Zimbabwe) were spotlighted to be contributing to this change (UNDP, 2018).

According to the 2018 World Investment Report, there were strong diversified investments into Morocco valued at \$2.7 billion. This was due to considerable investments in car technologies and the auto-industry. FDI into the country's financial sector also expanded due to banking relations with China. On its part, Egypt continued to attract significant inflows of up to \$7.4 billion and remained the largest recipient on the continent. These were supported by substantial investments from China across light manufacturing industries and the benefits- accruing from economic reforms such as financial liberalisation that enhanced reinvestments in domestic earnings (WIR, 2018).

Tunisia and Algeria have continued to promulgate reforms in their investment laws that increase incentives to attract more investments. In the case of Tunisia, these reforms witnessed new FDI into the renewable energy sector as well as into electronics, software and IT industries from Belgium, France and other regional investors (World Investment Report, 2018). These source countries have also ratified bilateral investment treaties (BITs) with the host nations

Algeria, which mostly depends on investments in the oil and gas sectors experienced a 26 per cent decline in 2018, despite multifarious incentives offered by the country's new investment law. However, it experienced increased diversification that was still supported by FDI from China to build a new airport and from Samsung, which helped open its first smartphone assembly plant in the country (UNCTAD, 2018). Diversification has also been at the centre of investments in Ethiopia, Kenya, Mauritius and the United Republic of Tanzania; with FDI remaining an important source of finance.

In west Africa, FDI fell by 11 per cent in 2018. The Nigerian economy suffered a depression that saw several consumer-facing companies from South Africa exiting the country in 2016. Ghana's FDI

declined by 7 per cent from 2017 while that in Côte d'Ivoire increased by 17 per cent. These were supported by diversifications in public investments. In Central Africa, FDI fell by 22 per cent with a substantial decrease in the Congo while Southern Africa experienced a 66 per cent decline to \$3.8 billion as Angola continued to experience divestment due to intracompany loans transferred by foreign affiliates (UNCTAD, 2018).

With respect to the changing patterns and performance of FDI inflows into the African continent, there have been arguably two relevant processes that explain the perception and features of FDI policies. The first relates to the fact that, in recent years, inter-country competition for FDI has increased considerably, which has also resulted in the liberalisation of FDI regimes. In order to improve foreign investors' confidence and attract FDI, many countries also engaged in the signing of BITs. The increasing number of treaties signed in some countries and consequent investments realised results in BITs' diffusion. This was reminiscent of Tobler's theory, which states that "Everything is related to everything else, but near things are more related than distant things". Therefore, the signing of an investment treaty that translates into more FDI may have triggered more investment treaties to be signed by nearby countries to avoid the diversion of such investments (Elkins, Guzman, & Simmons, 2006).

Secondly, there has been an increasing convergence among countries in many aspects of economic systems, regulatory and policy frameworks. As a result, most developing countries have vigorously implemented many changes in the legislation that governs FDI by liberalising their FDI regimes, and strengthening standards of treatment of foreign investors in order to make it easier for foreign companies to access markets (Omar, 2007). These include revision of operational conditions, investment guarantees, corporate regulations and the revision of approval procedures and other incentives that can ease entry of new firms.

To this end, many countries have continued policy efforts aimed at attracting FDI. One such effort has been an increase in the number of both bilateral and multilateral investments treaties/agreements (BITs & MITs). As at December 2019, there were more than 3300 signed BITs globally and with African 1106, signed mostly with non-African countries. Momentum has also continued towards negotiating bilateral and mega-regional agreements, especially in Africa and Asia, with the aim of enhancing trade and investments.

For example, the first phase of negotiations on the African Continental Free Trade Area (AfCFTA) which brings together 55 African countries that have agreed to form a free trade area, was concluded in December 2017. By June 2020, the treaty had already been ratified by 29 countries and had gone operational with the establishment of a secretariat in Ghana. There are also other trade agreements with significant impact upon investments such as the EU - SADC Economic Partnership Agreements

(EPA) that was signed in 2016 and the African Growth and Opportunity Act (AGOA), which gives African countries market access to the USA economy. These treaties tend to promote both trade and investments between signatories and consequently have important implications for the flow of investments into African economies.

The emergence of these newer investment and trade agreements between nations represents an opportunity to make a contribution to the theories and literature on FDI. The traditional theories of FDI were developed at a time when the world had not witnessed the impact of globalisation as we know it today. This reality is reflected in the focus of the theoretical literature and also captured in various studies on the determinants of FDI, especially to developing regions such as Africa. For example, some early attempts were also made to integrate differential rates of return and the portfolio allocation theory to explain the behaviour of Multinational Companies (MNCs) as drivers of FDI. While the former focused on rates of return as the sole determinant of FDI location, the latter's emphasis on short-term investments such as portfolios could not explain the long-term nature of FDI, despite factoring in risk as a predictor variable. Both Robert Mundell and Kojima, with his dynamic comparative advantages also modelled FDI using theories of international trade, but these still did not provide accurate explanations of FDI mobility. With today's World Trade Organisation (WTO) environment and integration of global financial markets, associated with the systematic elimination of tariff and non-tariff-barriers to trade and the rapid movement of capital across borders, MNCs now respond to a different set of incentives to determine their production location behaviour. These changes have tended not to totally eliminate the explanatory power of earlier theories, since some of the salient variables they identify still prove to be significant within models of the determinants of FDI.

In this regard, there are important early theorists such as John Dunning, Hymer and Vernon who are worth being recognised for their contribution to FDI theories. Dunning, in his eclectic paradigm, modelled FDI to be a function of ownership advantages, location advantages and internalisation (OLI). Each of these components was a theory and still maintains meaningful explanatory power even within the context of heightened globalisation. Buckley and Casson(1976) originally developed the internalisation theory to explain how multinational enterprises organise their internal activities to develop specific advantages. They argued that ownership advantages were the tangible and intangible assets of firms, while location advantages were country-specific advantages of host nations relative to others (Dunning, 1980). Cumulatively, these inform a firm's' location decision for FDI. Vernon, on his part, developed the production cycle theory while others such as the currency area theory and, market size hypothesis remain relevant for empirical models built to ascertain the determinants of FDI. The current study adds value to the locational determinants of FDI that are rooted in these earlier theories of FDI.

Although earlier empirical studies were focused on macroeconomic determinants, there have also been microeconomic studies that have identified firm-specific factors that influence outward investments (Buch, Kleinert, Lipponer, Toubal & Baldwin, 2005). Evidently, market access motives, the strive for dominance and cost-saving motives were found to be among some of the firm-level determinants of FDI flows. Similar studies have found that competitive pressures from multinationals push domestic firms to become more productive and subsequently start operations out of their home countries. There have been other studies on the determinants of FDI that have also focused on non-economic factors. These include institutional elements of countries such as democracy, corruption, civil unrests and, investment climates (Li & Resnick, 2003; Daude & Stein, 2007; Jensen, 2008).

The linkage between earlier theories and the globalisation effect that came with trade liberalisation was the witnessing of an exponential growth in the number of international investment agreements (BITs & TIPs). In fact, in the recent couple of decades, BITs have become a very significant international legal mechanisms that govern the trajectories of FDI flows. To adapt to these changes imposed by globalisation, some of the FDI literature began to gradually shift its focus to seek for explanations why bilateral and multilateral investment treaties, rather than unilateral policies on investments may make a difference to FDI inflows. It is to this nascent series of enquiries that this study has been set up to make a contribution. Some of the latest developments have been explained in terms of government's commitment to trade policies (within a trade liberalisation environment and informed by WTO commitments), contract theories and the terms of trade externality theory. Accordingly, governments have been found to make use of these treaties to internalise externalities that countries would, otherwise, impose on themselves in the absence of these international investment agreements (IIAs) and as part of their efforts to maximise welfare through cost shifting.

This study adopts the generic use of the term international investment agreements (IIAs) to capture its examination of a range of such agreements, including the impact of BITs, treaties with investment provisions (TIPs) and, preferential trade agreements with investment provisions (PTAIPs). Not all of these were found to be significant in determining the inflow of FDI into Africa, as some were found to be significant only when conditioned by certain elements of the investment climate and factoring the institutional structures of host nations. For instance, it would be shown that the effectiveness of AGOA is contingent on traditional determinants and availability of good institutions in host countries while the that of WTO accession was contingent to availability of good institutions.

Notwithstanding these recent approaches, there are still real research opportunities to explain the complexity and dynamics of FDI mobility in its entirety both globally and in Africa. The case of Africa is peculiar because it has been fraught with certain challenges that tend to directly affect the

sustainable inflow of FDI. Africa has defied some traditional predictions of FDI inflows in that the highest recipients of FDI in the last couple of decades and more recently have not always been bastions of political stability and an excellent investment climate. This has been explained by the behaviour of natural resource-seeking FDI that tends to still flow to areas of political instability and sometimes even outright conflict. Recent FDI performance in Africa has seen some 'unusual recipients', suggesting that there may be an emerging pattern of FDI inflows into the continent, moving away from the natural resources sector. Therefore, there is certainly a need for more theoretical and empirical studies that can address the specificities of Africa and these possible emerging patterns of FDI behaviour, in a manner that seeks to complement the theoretical predictions of earlier models and possibly contribute to the expansion of these models by adding unto it the learning that emerges from the African experience. The recent FDI behaviour examples drawn from across the African continent further suggest that a combination of investment climate variables through the restructuring of investment agreements and the arrival of new players, particularly from China and other emerging economies are actively driving a change in the FDI landscape. These changes also correspond with an increasing number of IIAs with Western and some Asian countries. The extent to which these agreements are attracting both new and old FDI providers could prove to be a critical aspect of increasing the continent's share of global FDI.

1.2 Statement of the problem

The flow of FDI into Africa is paradoxical, given that it is typically expected to move from regions with low to high returns. Return rates on FDI on the continent were estimated at 11.4 per cent from 2006 to 2011 compared to 9.1 per cent in Asia and 8.9 per cent in Latin America and the Caribbean. Notwithstanding offering a higher rate of return than other regions, Africa's global share of FDI continues to be relatively low, amounting to only 5 per cent from 2007 to 2013 and only 4.4 per cent in 2014. On the other hand, FDI into Latin America and the Caribbean was 10.6 per cent of global inflows and 19.9 per cent in Eastern and South-Eastern Asia within the same period (Economic Commission for Africa, 2016). Between 2014 to 2018, Africa's FDI inflow as a percentage of world inflows was 2.96 per cent compared to 9.03 per cent in Latin America and the Caribbean. Despite significant variations across economic blocks in Africa, an overwhelming majority of FDI flowing into Africa often gravitates towards the natural resource sector with less significant amounts of FDI flowing into manufacturing and tertiary activities. Attracting FDI into the manufacturing sector, for example, would have been accompanied by the development benefits associated with industrialisation such as an increase in Africa's share of participating in global production value chains and possibly an export expansion that could also increase Africa's share of global trade.

This raises the question of the contribution of FDI in Africa's development, judged from the sectors into which FDI is historically known to flow and the factors that determine and explain the current patterns of FDI flows. Although the issue of the determinants of FDI flowing into Africa has been covered in several studies (Banga, 2003; Aqeel, Nishat, & Bilquees, 2005; Campos & Kinoshita, 2010; Vinesh, Boopendra, & Hemraze, 2014; Economic Commission for Africa, 2016), there is still no consensus on what is required to attract a certain type of FDI into particular desirable sectors in Africa (for example, attracting Greenfield FDI into the manufacturing sector). Africa's record of political instability, shrouded in its colonial and neocolonial history, makes it an even more daunting task. Despite all, FDI remains an important component to appropriately address the continent's economic challenges to set it on the path of inclusive and sustainable development.

One of the most common approaches in attracting foreign investments has been the signing of investment treaties, since they are theoretically assumed to provide an effective means for its attraction. For this reason, countries have often resorted to a combination of bilateral or multilateral treaties that address issues relating to the protection of property rights. However, IIAs have seemingly started going through rejection as evident in the growing interest with regard to scrutinising their contents, gradual increase in treaties being terminated or revised and the number of settlements of investment disputes registered annually. According to data from UNCTAD, there were less than 100 BITs in 1980, and by 2000, the number had surpassed 2000.

In 2017, the lowest number of international investment agreements (IIAs) [18] were concluded since 1983, and for the first time, the number of treaties terminated also exceeded new ones (UNCTAD, 2018). These treaties are usually based on the premise that, they enhance the inflow of foreign investments necessary for development. This is grounded in the commitment theory, which argues that, signing IIAs is a guarantee that governments will credibly commit to prompt compensation or consent to arbitration during disputes or violation of the terms. The implication of this theory is that it creates a conducive business environment that boosts the flow of FDI (Allee & Peinhardt, 2011).

Thus, African countries are motivated to sign IIAs with developed ones in order to reap benefits in the form of increased investments that can facilitate economic development. However, there is an emerging wave of new restrictions as concerns about national security and foreign ownership of land and natural resources continue to grow (UNCTAD, 2018, p.80). Given the extent of property rights usually relinquished during negotiations, restrictions imposed on the right to regulate in public interest, and the rising cost associated with investment treaty arbitration (Dagbanja, 2019), it is important that countries should examine its place in determining the inflow of foreign investment. This is necessary, especially when policy makers wish to base decisions to adopt BITs on revealed benefits. Although a couple of researches have been done on the importance of these treaties in

Africa, these mostly have a legal background and cannot establish cause-effect relationships. Aside a recent study by Dagbanja (2019) in Ghana, this study is not also aware of any other, that has focused on the effectiveness of specific BITs with top investing countries in Africa.

In this regard, being able to determine what role IIAs can play in influencing the inflow of FDI to Africa is of paramount importance, as well as re-examining the role of traditional institutional determinants of FDI inflows into Africa. Thus, the question of whether IIAs effectively contribute to FDI in Africa remains crucial, given the inconsistencies in empirical results and expanding vituperation towards investor-state dispute settlements (Yackee, 2016; Jacobs, 2017). It is not also clear whether the positive IIAs-FDI relationship reported in extant literature can cut across all regions in Africa, since that would necessitate the existence of homogeneity. Therefore, the aim of this study is to investigate the impact of IIAs in Africa, identify the most important ones, and establish its interactive effects with the investment climate as an FDI enhancing mechanism.

1.3 Background to the study

According to data from UNCTAD (2019) on Africa, FDI contributed 3.14 per cent to GDP in 2001 and 1.97 per cent in 2018, with its most prominent role being in 2009, which amounted to 3.41 per cent. On average, it has accounted for more than 10 per cent of gross fixed capital formation since 2005, and increased by more than 55 per cent from 2005 to 2018. In the past five years, this contribution reduced to 2.18 per cent 9.97 per cent for GDP and gross fixed capital formation respectively. Its flows into the continent dwindled by \$54 billion in 2015 (7 per cent), which persisted until 2017. This was reversed in 2018 when it increased by 11 per cent from the previous year (\$46 billion), despite the average global decline.

Historically, however, many have expressed ambivalence on the impact of FDI on economic growth on the continent. Firstly, most FDI was directed into the extractive industries (wrong sectors) and raw materials were seldom processed to enhance domestic value addition and connection into global value chains (Anyanwu, 2012; Asiedu, 2006; Botrić & Škuflić, 2006). Secondly, investments in the manufacturing and tertiary sectors were diminutive and most trading partners preferred to import, resulting in trivial episodes of significant Greenfield investments. According to a 2016 report from the Economic Commission for Africa (ECA), African countries accept unethical investments that stifle inclusive growth. Furthermore, the lack of transparency in some investments cost many countries huge sums of money.

This paradox suggests that in addition to traditional determinants of FDI, there are other factors that explain Africa's FDI performance. For instance, structural weaknesses such as inadequate public infrastructure and human capital still explain the low inflow of FDI into the continent. The availability

of these human resources and high quality infrastructure would have otherwise enhanced the productivity of physical and financial capitals and reduce cost of doing business (Odusola, 2018). However, these categories of both economic and social factors have received modest attention in empirical research.

Other challenges include fractured investment policies, limited access to investment opportunities by foreign investors and high sovereign risks (corruption, political instability, vulnerability to shocks). Finally, the cost of financial intermediation (e.g. brokerage, loan evaluation, agency costs and contract enforcement) often proxied by domestic lending rates (60% in Madagascar and 44% in Malawi) also impede FDI inflows (Odusola, 2018). However, these are not exhaustive as policy regimes of African governments also have important implications on FDI.

In addition to the above, the 1960s were characterised by the emergence of newly independent states in Africa that were very protective of their independence. While some countries signed BITs and double taxation treaties (DTTs) with their colonial masters whose interest was to secure minerals in exchange for recognition as independent states, others saw FDI as another medium of losing their autonomies to foreign nations. These translated into more restrictive trade policies and, consequently, limited investments. Countries that opted for these restrictions soon found themselves in dire need of capital, with limited financial alternatives and a new readiness to accept FDI that led them into signing even more BITs (Salacuse, 1990). Consequently, there was an upsurge in both bilateral and multilateral treaties. This is part of the context within which BITs have become one of the most popular mediums through which governments can credibly commit to create a conducive environment for investments in developing countries and an important conduit for FDI.

Most initial BITs and DTTs were signed with former colonial masters, although the desire for a wider market has led Africa to sign more BITs with FDI-sending countries and new countries such as China and some FDI-sending countries within Africa, such as South Africa and Morocco. In most of these cases, the existence of BITs was regarded as a confidence building measure that symbolised an improved investment climate, thereby promoting bilateral investments. Notwithstanding these emerging patterns favouring BITs, a number of African countries still received meaningful amounts of investments in the absence of BITs. For instance, the US is one of the largest investors across Africa, yet, it had only seven ratified BITs in 2019, suggesting that there may be other factors influencing the USA's Africa investments outside of the establishment of BITs.

Although BITs have recently become controversial due to an increasing number of disputes that imposed huge costs to member states, they are still seen by countries as a medium to attract FDI. This is so because by upholding the international standards of investment protection, they reduce

potential risks that foreign investors would otherwise face, which in turn, encourages the inflow of investments (Al-Louzi, 2017).

Furthermore, the signalling role of treaties cannot be underestimated, both as a show of commitment on the part of host nations, as well as an inducement by foreign countries for their domestic firms to invest where such BITs exist. However, researchers now agree that it is necessary to critically examine the importance of BITs, given that their signings are usually done at the highest political levels without due consideration of their socio-economic implications, especially at the implementation phase (ECA, 2016).

Many pioneer studies did not find that BITs were associated with significant increases in FDI. This motivated Swenson (2005) to question whether signing BITs was in the best interest of developing countries, given the enormous financial resources and time often invested to get the deal signed and property rights that developing countries relinquish in the process of signing them. Elkins *et al.* (2006) described the surge in BITs as a form of competition for FDI by developing countries, especially where contract enforcements were in doubt. In order to examine whether countries that enter into BITs often receive the anticipated benefits from their promise to protect foreign investments, it may be important to examine the characteristics of countries that choose to sign BITs and why they sign them. Specifically, which countries and why do they sign BITs? The analysis would further be extended to explore whether the interests of foreign investors influence treaty signing in Africa.

Furthermore, there is considerable empirical evidence supporting the assertion that the establishment of BITs is often accompanied by an increase in the inflow of FDI (see Neumayer & Spess, 2005; Rose-Ackerman & Tobin, 2005; Banga, 2006; Buthe & Milner, 2008; Busse, Königer & Nunnenkamp, 2010; Bhasin & Manocha, 2016). Others such as Tobin and Rose-Ackerman (2011) argue that the effectiveness of BITs in attracting FDI is contingent on the availability of necessary domestic institutions. Although there are some studies, such as Hallward-Driemeier (2003) and Aisbett (2007), which have found no significant influence of BITs on FDI, the bulk of these studies have focused in developing countries, emerging nations or developed countries.

It is worth noting that in spite of the popularity of BITs in Africa, there have not been many studies on the impact of BITs on FDI inflows in Africa. This is the gap this study intends to contribute towards with the objective of providing recommendations that would guide African policymakers on how to make decisions to adopt BITs. Therefore, the question of whether BITs effectively contribute to FDI in Africa remains crucial given the inconsistencies in empirical literature and expanding vituperation towards investor-state dispute settlements (Yackee, 2016).

In a pioneering study, Salacuse and Sullivan (2005) used various approaches to study the effects of US BITs on aggregate FDI flows into more than 100 developing countries. Their findings showed that

US BITs induced FDI inflows more than those with OECD countries, and that countries with US BITs were likely to realise increased aggregate FDI than those without US BITs. This hypothesis was attributed to strong investor protection offered by US BITs.

A closer examination of Africa's recent experience suggests that a number of new players have emerged with enormous investments spread across the continent. These include China, the Netherlands, Turkey, Russia and other emerging economies. Investors from these countries have penetrated the continent to the extent that former top investors such as the US, UK and France now face stiff competition and see it as a threat to both their economic and political interests. However, the effectiveness of existing BITs with these top investors has not been investigated in any previous study on Africa.

Walter and Frenkel (2016) recently argued that BITs have the potential to influence host nations' institutions by shaping governments and investor behaviours. Hallward-Driemeier (2003) had earlier argued that BITs acted as complements to good institutional quality and property rights in host nations. Given that African countries are noted for short-term attempts to liberalise their economies, political instability and poorly developed institutions, their decisions to ratify BITs may be a value-added endeavour to strengthen their institutions and investment climates, since BITs are an assurance of the host country's commitment to protect foreign investments from expropriation and to provide fair treatment to their investments in accordance with international standards. This is in line with some empirical literature that has found that countries with quality institutions attract FDI (Blanton & Blanton, 2007; Jensen, 2008; Jensen, 2003; Sen & Sinha, 2017; Subasat & Bellos, 2013).

China, despite international media vociferously spotlighting institutional weaknesses has remained one of the largest recipients of FDI in the world (Fan, Morck, Xu & Yeung, 2009). Though the literature has often emphasised the importance of quality institutions to determine the inflows of FDI, not much emphasis has been placed on the channels through which such institutions translate into higher FDI inflows. According to Fan *et al.* (2009), these studies mostly fail to explain why some countries with poor institutional structures continue to attract massive inflows of FDI as observed among some top African FDI recipient countries. Al-Louzi (2017) has argued in this regard that the more BITs protect foreign investments, the better they enhance the investment climate and competition. Therefore, BITs and other IIAs may actually hold the key to both improving the investment climate in Africa, and increasing the inflows of FDI.

The late 1980s onward correspond to a period in which most African countries experienced increased waves of BITs and democratisation. The number of dictatorial regimes reduced from 40 in 1980 to five in 1985, while democracies increased to 22 in 2015 (Green, 2018). The trajectory also suggests a drift towards improved political participation, accelerated by greater social democratic

activism in this new globalisation age. It would seem African governments are finally getting some of their institutions right. Whether by choice or by obligation, these changes ought to have implications on their domestic investment climate and ability to attract FDI. Within the context of this study, the following section outlines the objectives and research questions that were pursued.

1.4 Research objectives and questions

The main objective of this study is to examine the impact of international investment agreements (IIAs) on foreign direct investment into selected African countries. Specifically, the study aims to:

1. Examine factors that determine the diffusion of bilateral investment treaties in Africa.
2. Assess the impact of international investment agreements on foreign direct investment into selected African countries.
3. Examine the impact of the quality of economic and political institutions on foreign direct investment into selected African countries.
4. Examine the mediating role of the investment climate in the relationship between international investment agreements and foreign direct investment in Africa.

On the basis of the above-mentioned specified objectives, the study shall answer the following research questions:

- i. What are the determinants of the diffusion of bilateral investment treaties in Africa?
- ii. What is the impact of international investment agreements (IIAs) on foreign direct investment in Africa?
- iii. What is the impact of economic and political institutions on foreign direct investment in Africa?
- iv. What is the impact of the investment climate in mediating the relationship between international investment agreements and foreign direct investment in Africa?

1.5 Hypotheses of the study

The following hypotheses were specified for the study:

Hypothesis 1: Bilateral investment treaties do not induce foreign direct investments into Africa.

Hypothesis 2: Treaties with investment provisions do not have an impact on foreign direct investment in Africa.

Hypothesis 3: Political institutions do not influence foreign direct investment in Africa.

Hypothesis 4: The business climate does not have an impact on foreign direct investment in Africa.

Hypothesis 5: The investment climate does not have an influence in the relationship between IIAs and foreign direct investment in Africa.

In order to realise the above-mentioned objectives, the study collected data on bilateral investment treaties and treaties with investment provisions from Policyhub and the African Growth and Opportunity Act. The first objective aimed to investigate the treaty signing proclivity of African countries. An aggregative measure of BITs was employed and the method of estimations consisted of a one-way error component model. This was analysed using the fixed/random effects approaches. Results showed that countries with a larger market size, higher risks of corruption, and those with weak institutions were likely to sign more BITs. These results were consistent with those in existing studies such as Swenson (2005), Elkins et al. (2006), and Rosendorff and Shin (2012). The second objective aimed to examine the impact of IIAs on FDI in Africa using the generalised method of moments. Analysis showed that BITs were important for FDI, while the effects of treaties with investment provisions was mostly contingent on existing market size and natural resource abundance. In the final analysis on the mediating effects of the investment climate on FDI, BITs were found to be substitutes for domestic institutions in their interactive relationship with foreign direct investment. These results are largely consistent with extant literature on the positive impact of BITs in inducing foreign investment in developing countries (Büthe & Milner, 2009; Sirr, Garvey, & Gallagher, 2017; Falvey & Foster-McGregor, 2018).

1.6 Contributions of the study

This study contributes to the literature on the importance of international investment agreements (IIAs) as instruments that enhance foreign investments from an African perspective. African countries that typically roll out IIAs often have to invest substantial resources towards security, tax incentives, costs in negotiating IIAs and infrastructure to attract FDI. They also relinquish property rights in the process of negotiating these treaties which requires benefits to outweigh costs. However, questions as to whether these IIAs actually translate into desired FDIs remain largely unanswered in Africa, making it difficult for policymakers to base decisions to participate in IIAs on revealed benefits. Therefore, findings from the study would lend valuable insights and useful perspectives on policymaking regarding the role of BITs in attracting FDI.

Previous studies on the impact of BITs mostly merged all developing countries, treating them as though they were homogenous. However, developing countries vary in their levels of development and technological advancements. For instance, China is still considered a developing country in some classifications, even though it is a major investor in Africa. There is no doubt that inferences

from such studies cannot be generalised to all developing countries. Furthermore, Sub-Saharan Africa remains the poorest region in the world; 16 of Africa's 55 nations are landlocked and the continent is host to 33 of the 47 least developed countries (LDCs) in the world. Based on these, BITs should be expected to affect these economies differently even across different regions within the same continent. This study was designed to contribute towards filling the missing gap of rigorous empirical literature on the impact of investment treaties in attracting FDI to Africa. This has been done through a detailed assessment of the impact of BITs and other IIAs on influencing FDI inflows into Africa. The results obtained and presented in the rest of the study have specific implications for the formulation of policy and extension of the determinants of FDI literature from an African perspective.

Secondly, by estimating the effectiveness of specific BITs in Africa, the study has contributed to giving policymakers a sense of which kinds of IIAs are more likely to increase FDI. For instance, the results obtained suggest that US BITS, among others, can be very effective in promoting and signalling a safe investment climate with consequent spillover effects in the form of FDI. Therefore, this study identifies the efficacy of specific BITs in order to inform African countries on decisions relating to potential investing countries. This is necessary and can serve as a guide by providing a myriad of options from which policymakers can choose when deciding partake in these institutions that can guarantee the inflow of FDI.

Similarly, there is some evidence of paucity of research on the impact of multilateral agreements with investment provisions on FDI in Africa. While some studies have mostly focused on the implications of such agreements at regional levels, this study contributes to this literature by examining how a country's accession to WTO membership influence its investments attraction. Associated with this, it also examines the impact of other multilateral agreements like BITs with the European Union and membership with the AGOA initiative on the inflow of FDI. These treaties with investment provisions have as objective to promote bilateral trade, investment and inclusive development. To this end, African countries investment tremendously in such treaties with the hope that the benefits will outweigh expenses. However, the limited number of rigorous studies on their effectiveness makes it difficult to understand whether they actually meet purposes for which they are often designed in Africa. The current study surmounts this by providing empirical evidence which shows circumstances under which those treaties can be effective. African countries can, therefore, choose to participate in them based on whether they have mediating factors that enhance their effectiveness.

In addition, FDI into Africa has in the past five years only been resilient in countries that are more diversified, and therefore future investments may comprise mostly footloose companies in which every nation has an equal opportunity to benefit irrespective of their natural resource strength, but depending on their community of friends, institutional convergence and isomorphism in investment

climates between home and host nations. Given Africa's history of both economic and political instability, this study identifies institutional factors that attract investments into the region and those that can impede the continuous flow of such investments.

Previous studies have also failed to disaggregate between the impact different political systems; and there exists insufficient knowledge on the relative contribution of each together with their interactive effects with BITs on FDI. The current study has sought to surmount these gaps in the case of Africa. It is shown that BITs substitute domestic political institutions in their relationship with FDI in Africa. The results imply that foreign investors do not perceive democracies in Africa as robust institutions that can guarantee the protection of property rights. Therefore, there is a need for African countries to continue the process of strengthening their democracies and other institutions.

Furthermore, the FDI literature is still fragmented on what econometric model to specify on the impact of international investment treaties on FDIs. That is, whether to estimate the effectiveness of treaties in dyads or on aggregate FDI, irrespective of origin. Studies using the former method focus more on the signalling effects of treaties. This study contributes to this approach by estimating the importance of BITs on aggregate FDI. The results here are considered to be more robust because they account for the common problem with endogeneity in panel data analysis, heteroscedasticity, and unobserved panel heterogeneity.

Finally, a novel theoretical framework adopted from experimental economics, based on game theory is applied to the operationalisation of variables in this study. Although both old and new theories of FDI reviewed in the study are still relevant in explaining the dynamics of foreign investments, these theories often tend to be debilitating in their ability to operationalise variables in empirical studies. The game theoretic framework employed in this study was important in identifying patterns of FDI, and it also had as strength the ability to factor in dynamic inconsistencies of countries over time, commonly described in business studies as "obsolescing bargain" (Aisbett, 2007; Kydland & Prescott, 1977). This approach adds value that should further be developed in future empirical studies, especially on decision-making by multinationals at firm-specific levels.

1.7 Structure of the thesis

In the preceding sections, an introduction was presented which showed the existing debates and objectives of the study. The rest of the dissertation is structured into 6 chapters.

- i. **Chapter 2:** This chapter presents a conceptual framework for FDIs and its categorisations. The concepts of investment treaties and investment climate are also contextualized. These are necessary to appropriately examine the extent and channels through which IIAs influence

direct investments. The second section in Chapter 2 reviews theoretical foundations of the study. Although theories of FDI cannot be exhausted in a single study, the most relevant theories are reviewed and juxtaposed with related theories on IIAs.

- ii. **Chapter 3:** Presents empirical evidence on the nature and impact of investment treaties on FDI. Literature is divided into studies that examine the impact of BITs, multilateral agreements with investment provisions, investment climate and fundamental determinants of FDI. In the process of reviewing existing studies, substantial literature is drawn from developing countries, Africa and Asia. The chapter would conclude with existing gaps in literature.
- iii. **Chapter 4:** Presents the background to the study area. The chapter commences with an overview of African economies by examining gross domestic product, education, electricity production and other forms of infrastructure. In the next section, it reviews the flow of FDI into the continent and across regions. Patterns of Greenfield investments are also analysed in detail. The treaty signing proclivity of countries on the continent is also reviewed, while the last section examines Africa's political and business environment. This chapter gives a sense of data that is used for the analysis and its trends over time.
- iv. **Chapter 5:** It details the research design and samples studied. Section 2 of Chapter 5 is devoted to an extensive development of both the theoretical and empirical frameworks used in the study. Its theoretical model is based on the dynamic game-theoretic framework. The chapter also presents how variables are operationalised as well as sources of data. Finally, methods of analysis, model specification and various validation techniques are discussed. In this chapter, the problem of endogeneity is extensively discussed as the main challenge in empirical literature alongside appropriate measures employed to address it. The chapter concludes with a presentation of results from principal components analysis as a data reduction strategy.
- v. **Chapter 6:** Results are presented and discussed in Chapter 6. The first section presents descriptive analysis that covers the respective trends of principal variables such as FDI and summary statistics of BITs, normality tests, bivariate correlation analysis between independent variables, heterogeneity and results of panel tests for stationarity are also presented. The last two sections present and discuss results in order of specified objectives. The chapter is critical for policies outlined in chapter 7.
- vi. **Chapter 7:** This is the final chapter of the thesis and is structured into four sections. These include a summary of all chapters and results, conclusions, policy implications and areas for further research. Policy implications outline both the practical and the theoretical implications of results in the thesis. The remaining sections consist of the bibliography and other supplementary material.

2. Chapter 2 Literature review

2.1 Introduction

The preceding chapter introduced and provided brief context to the study. The chapter's oeuvre situates the study within the contextual reality that Africa has been receiving less than its fair share of global FDI, notwithstanding offering higher rates of returns than other regions. It, however, observes that there seems to have been a change in the pattern of FDI inflows into the continent in the last couple of decades, gradually moving away from traditional natural resource sectors and economies/countries into what could be considered 'unlikely recipients'. The previous chapter laid the foundation for an investigation into the changing/emerging patterns of FDI inflows to the continent with the specific objective of ascertaining whether or not the observed changes could be the result of international investment agreements (IIAs).

This chapter builds onto this narrative by reviewing the theoretical literature on FDI. It focuses on some very early theories that explained FDI, through among others, an examination of the behaviour of MNCs and their decisions on where to locate their production activities. It also briefly examines the very nascent literature on IIAs-including the African continental free trade area-, and establishes the theoretical relationship between FDI and IIAs. It argues that the link between FDI inflows and IIAs is often mediated through components of the institutional environment (economic and political institutions) of host countries which is also related to broadly identified elements of its investment climate.

There are several philosophical schools within which the study may be situated. These include institutionalism, which has as its focus the role of institutions in influencing economic behaviour. Although it has disparate meanings that are vast, diffused, and cuts across different disciplines (Powell & DiMaggio, 1991, p.1), its use in this study will mostly refer to economic and political institutions that can have an influence on international transactions. Its alternate names include American institutional economics, old institutional economics or original institutional economics (Rutherford, 2001). It was first brought to the attention of economists by Walton Hamilton (1919). However, Thorstein Veblen, Wesley Mitchell, and John R. Commons are widely known to be its founders.

According to Veblen, institutions are not just constraints to individual choices and actions but also define ways of thinking and behaviour. Veblen perceived American institutions to be largely pecuniary in nature and had an influence on the preferences of individuals and organisations. Within the arena of investment policies, this school might examine the evolution of investment policies and the

circumstances under which countries import international institutions through participation in various treaties, factors that determine changes in such institutions and what aspects of institutions influence various sectors of the economy. The study may, therefore, arguably be viewed within the broad field of institutionalism.

Furthermore, the substance of neoclassicism's oeuvre shows that it could also provide an explanation to the philosophical foundations of this study. The focus of neoclassical economics is generally on how demand and supply interplay in the market to determine output and income distribution, within the broad hypothesis that both consumers and producers are utility maximisers. Its approach on utility maximisation has been integrated in recent years with institutional and heterodox economics to explain dynamic choices of enterprises and consumers. Within the context of this study, foreign investors may be perceived as utility maximisers with African countries providing the necessary resources (natural and human), and a readily available market that can enhance production at the least possible cost- an interaction that helps to establish equilibrium. However, neoclassicism relies on stringent assumptions of rational preferences, utility maximisation and information symmetry, which cannot appropriately explain dynamic choices surrounding international investment agreements (expatiated in the game-theoretic framework in chapter 5) (Milonakis & Meramveliotakis, 2013). It is constricted in scope and generally assumes the existence of political stability, agent's thrift, and perfect mobility in factors of production. They also assume the existence of full employment and perceive governments as being trivial, irrespective of the important role they play in creating the necessary conditions for both investments and development. Finally, it is not clear how its prescriptions fit in developing countries, since the school evolved based on the experiences of developed countries.

Therefore, a more appropriate philosophical school that provide explanations to this study is the field of new institutional economics (NIE) or neo-institutionalism. Similar to neoclassicism, new institutional economics also assumes that economic agents are rational and seek to maximise their preferences. However, the extent of their rationality is bounded by cognitive limitations, incomplete information and challenges in monitoring and enforcing contracts or agreements. Consequently, the presence of effective institutions provides an important medium for dealing with transactions cost. Therefore, good institutions enhance property rights protection across a broad spectrum of the society which can be an incentive to investments and economic development (Acemoglu & Robinson, 2005; Darity & Triplett, 2008; Chang, 2011).

A scrutiny of the oeuvre of NEI and its panoply shows that the study can rightfully be situated within the confines of property rights theories. There is a long-standing research showing that clearly defining property rights provides an important mechanism that can strengthen the inflow of capital

and consequently increase economic development (Obeng-Odoom, 2013; Maze, 2017). According to Ronald Coase, there are costs associated with the price mechanism which, under certain circumstances, may be necessary to use alternative arrangements (Shirley, Wang, & Menard, 2015). Accordingly, these costs include information cost and costs associated with negotiating and concluding contracts for every exchange, just to name a few. These are often termed transactions costs in the literature because they refer to costs associated with obtaining information, enforcing property rights, and negotiating and enforcing contracts.

Its implication in the present context is that foreign direct investment does not occur in a vacuum. It requires information on potential investment areas, institutions, investment agreements/contracts that coordinate and facilitate its efficient allocation. In cases where property rights are not protected, there will be little or no incentive for economic agents to invest and produce, perhaps, as a result of higher transactions cost or because such investments could be a random target for expropriation by political systems within which they are located (Dutt, 2011). Therefore, a clearer delineation of property rights determines the efficiency of economic systems which can facilitate resource allocation (Milonakis & Meramveliotakis, 2013).

The cost of these transactions may significantly vary across potential areas of investment. In such situations, investors may employ a cost-benefit analysis in order to determine where they can locate their investments, which is entrenched in New institutionalism. As a result, this chapter as well as the rest of the study goes with the well-documented argument within the above-mentioned philosophical school and existing literature that FDI is beneficial for development. These developmental benefits for FDI may include employment creation, technology transfer and other economy-wide gains from capital inflows on the host country's foreign reserves and balance of payment accounts.

After this introduction, the rest of the chapter is divided into four sections. Section 2.2 examines and situates the main concepts within the context of the study, which include but are not limited to FDI, IIAs and investment climate. In section 2.3, theories of FDI are reviewed to provide a retrospective exhibition of what has been theorised about the nature and changing patterns of FDI- and factors that drive its mobility to other countries-, while theoretical underpinnings of trade agreements are reviewed section 2.4. The chapter is concluded in section 2.5 with a broad reflection that sets the tone for existing empirical literature in the next chapter.

2.2 Definition of concepts

2.2.1 Foreign direct investment

Foreign direct investment (FDI) can be broadly defined as the flow of capital into an economy by an entity based in another country. It is a category of cross-border investment in which residents of one economy control or influence the management of an enterprise that is located in another country (Patterson, Montanjees, Motala, & Cardillo, 2004). The movement of this capital increases local stock, production and productivity through the efficient use of scarce resources. According to the classification of cross-border investments by the International Monetary Fund (IMF), the structure of capital flows in its balance of payments considers a) foreign direct investment b) portfolio investments c) financial derivatives, and d) other investments (International Monetary Fund, 2003).

Unlike portfolio investments that are usually short-term attempts to make money by buying financial assets in foreign countries (such as stocks and bonds on exchange), FDI is typically a long-term investment, sometimes lasting for more than 10 years. Therefore, its distinctive characteristic is that it creates specific assets that cannot be easily moved, sold or transformed into alternate uses in the short run without substantial losses (Büthe & Milner, 2009). Statistically, the minimum threshold for FDI to be classified as direct investment is 10% of the ordinary shares or voting powers of an enterprise. It is typically measured as flows or stocks in US dollars or as a percentage of GDP (Sauvant & Sachs, 2009), and can be undertaken by individuals or business institutions.

2.2.1.1 Foreign direct investment flows

FDI flows refer to capital provided by foreign investors to foreign affiliates (equity, intra-company loans, reinvestment earnings) within a given period, usually a quarter or year. These can either be in the form of inward flows or outward flows. Outward FDI flows are transactions that increase investments owned by investors in the reporting economy in foreign economies. These may include the purchase of equity or reinvestment of earnings, minus other transactions that reduce investments that investors in the reporting economy have in enterprises in the foreign economy such as sales of equity or borrowing by the resident investor from the foreign enterprise. This form of FDI is crucial for competitiveness, long-term growth and sustainable development in host nations. On the other hand, inward FDI flows are those transactions that increase investments that foreign investors have in enterprises resident in the *reporting economy minus those that decrease the investments of foreign investors in resident enterprises* (OECD, 2020).

2.2.1.2 *Foreign direct investment stocks*

FDI stocks are the total value of foreign-owned assets plus the net indebtedness of affiliates to foreign entities or enterprises at a given time, usually quarterly or annually (Sauvant & Sachs, 2009; World Investment Report, 2007). Similarly, FDI stocks can either be outward or inward. Outward FDI stocks measure the value of resident investors' equity and net loans in foreign economies. On the other hand, inward FDI stocks measure the total value of foreign investors' equity in and net loans to enterprises resident in the reporting or domestic economy.

The movement of FDI can enrich a country's foreign exchange reserve, create jobs and improve standards of living in a country. It can also reinforce a firm's financial position, as well as increase its competitive advantage and capacity utilisation. There is extensive empirical and theoretical literature on why firms extend production activities beyond national boundaries from both a managerial perspective and in response to certain characteristics of their potential host countries. These motivations can generally be categorised into factor and market seeking, which can further be grouped into external and internal market motivations (Zitta & Powers, 2003). The latter deals with company-specific characteristics that drive outward investments while the former encapsulates country-specific factors that attract FDI. Although FDI is often regarded as the most important within the context of cross-border capital flows, other components of the financial account in the balance of payments such as portfolio debts, equity investments and bank investments are equally relevant (WIR, 2018).

The different types of FDIs include : a) horizontal FDI, b) vertical FDI, and c) conglomerate FDI. According to Athukorala (2013), it is necessary to understand the distinction between vertical FDI (efficiency-seeking) and horizontal FDI (market-seeking) in order to gain insight into some of the theories that have been formulated to explain FDI and the behaviour of MNCs. Accordingly, horizontal or market-seeking FDI refers to the production of the same goods or supply of the same services by MNEs with the aim of avoiding the cost of foreign trade (e.g. export-related costs). Market-seeking FDI is motivated by factors such as present and potential market size, growth prospects and levels of economic development. On the other hand, vertical or efficiency-seeking FDI is a geographical fragmentation of the production process in order to benefit from location-specific advantages in the OLI framework (Marszk, 2014). Similarly, factor-seeking FDI is often motivated by the availability of natural and human resources, and certain characteristics of the institutional, economic and political environment of the host country. The uniqueness of FDI derives from its long-term quality, low volatility relative to other forms of capital mobility, less sensitivity to financial shocks and the fact that it imbibes some degree of risk sharing between multinational enterprises and host countries.

The burgeoning interest on FDI has led the United Nations to start assembling its data since 1970. Following economic and structural liberalisations in the 1980s, FDI into developing economies grew exponentially among other forms of capital flows. This was synchronous with shifts on emphasis to develop strategies geared towards attracting more investment. Most researchers now study FDI as a chain of host countries and foreign enterprises that frequently involve their governments as major stakeholders.

In many emerging economies, it sometimes represents an enormous share in investments. According to Rose-Ackerman and Tobin (2005), so long as foreign firms have alternative sites for their investment projects, they can negotiate and get better leverage than those at the disposal of domestic enterprises. Recently, the growing number of both bilateral and multilateral investment treaties that host governments sign have been protecting foreign investments. In this study, we shall consider annual aggregate monetary values of FDI stocks in African countries.

2.2.2 International investment agreements

FDI has gradually ascended to become one of the main factors that drive international economic relations in the world. This leapfrogging has pushed international investment lawmaking to the forefront of economic diplomacy. Most international transactions will most likely not take place without capital flowing across borders. Therefore, the existence of transparent, predictable and enforceable rules at multilateral levels is a prerequisite for such transactions (Economic Commission for Africa, 2016).

To this end, efforts made by countries to attract FDI increasingly materialise in environments characterised by a proliferation of b, rmeional and Multilateral investment agreements (WIR, 2004). In fact, there has been a remarkable increase in the number of IIAs since 1990. Although these legal instruments vary widely, their explicit aim is to attract FDI, with specific emphasis on investment protection. It is, therefore, necessary to conceptualise IIAs and related components in order to measure and establish any causality with FDI.

International investment agreements are treaties between nations that address issues of cross-border investments. Their overarching aim is usually to liberalise, promote and set out standards of protection for investments made in one country by investors from other countries that are enforceable under international law. Generally, capital-exporting countries always aim to protect their domestic enterprises investing abroad, while host nations aim to attract more investment by signalling their willingness to trade with respect to internaitonal standards (PAGE, 2018).

The most common types of IIAs are bilateral investments treaties (BITs). Others include international taxation agreements and double taxation treaties (DTTs). Some investment chapters also exist in broad commercial treaties such as preferential trade and investment agreements (PTIAs). A special kind of these treaties are economic integration agreements (EIAs) that facilitate trade and cross-border mobility of factors of production between treaty partners. Although EIAs are more concerned about trade, they are increasingly addressing issues surrounding investment among contracting nations, which makes them a special type of IIA. Therefore, when such treaties have provisions for investments, they are referred to as PTIAs (UNCTAD, 2009). A classic example is the African Growth and Opportunity Act (AGOA), a PTA whose aim was to enhance access to US markets to deserving Sub-Saharan African countries, but had some provisions for investments between contracting nations.

Although BITs were originally negotiated between high income nations and developing countries, there has been an increase in the number of BITs between developing countries in the past two decades. Whether IIAs appear as BITs or FTAs, they typically cover three main components that include:

- ✓ **Scope:** This clearly defines investment, foreign investor and what is protected by the treaty.
- ✓ **Standards of protection:** These include protection against potential risks of expropriation, equitable treatment with domestic firms and non-discrimination standards.
- ✓ **Dispute settlement:** IIAs generally contain provisions on how disputes will be settled. These give foreign investors rights to seek arbitration, should there be a violation of any standard of protection that is enforceable by both national and international courts. Most provisions in earlier BITs had disputes settled between states. However, recent BITs now involve investor-to-state arbitration, through which investors can submit claims against host governments (Economic Commission for Africa, 2016).

The focus of this thesis is on BITs and some multilateral agreements with investment chapters, or better still, Preferential Trade and Investment Agreements (PTIAs).

According to the UNCTAD (2019), BITs can be defined as agreements between two countries for the reciprocal encouragement, promotion and protection of investments in each other's territories by companies based in either country. They are legal instruments that establish specific rights and obligations relating to investments between contracting parties (Büthe & Milner, 2009). Most African countries sign BITs and DTTs in order to give confidence to foreign investors that their investments will be legally protected under international law in case of any instability. Furthermore, avoiding double taxation of foreign enterprises is also a customary practice that developing countries

unilaterally offer their counterparts from developed countries, with the hope that income distortions would be compensated by increased FDI flows.

IAs have a long history that dates back to the precolonial period. However, the post-colonial era in the history of IAs started in 1947 with the creation of the Generalised Agreement on Tariffs and Trade (GATT), currently being overseen by its successor, the World Trade Organisation(WTO). GATT mostly dealt with issues relating to trade and not investments.

Since 1959, the number of BITs has risen to become the predominant instrument that protects international investments (Vandeveld, 2005). By the end of 2017, 3322 IAs had been concluded, among which were 2946 BITs and 376 treaties with investment provisions (TIPs). More than 2600 IAs are currently in force, mostly in the form of BITs (UNCTAD, 2018). These treaties guard foreign investors against any adverse action that governments of host nations may want to take against their businesses. Under such circumstances, investors can invoke legal protection through international arbitration (Bonnitcha, 2017).

The sharp increase in BITs in the 1990s sparked an interminable debate as to whether BITs, TIPs, DTTs, regional and other multilateral investments agreement do indeed determine the flow of FDIs. The debate emanated from the fact that developing countries vociferously opposed the Hull Rule¹ and started signing BITs that incorporated similar obligations to it and even offered more protection to foreign investors at the expense of host nations (Guzman, 1997). To this end, the mechanisms through which BITs influence economic, structural and financial reforms and FDI have earned significant attention in economic literature on multinational enterprises. More importantly, researchers have been interested in establishing whether there exists any causality between IAs and investment climate.

Besides BITs, there are three categories of TIPs. These include:

- a) Economic treaties that include common obligations in BITs (e.g. a free trade agreement with an investment chapter);
- b) Treaties with limited investment-related provisions (e.g. only those concerning establishment of investments or free transfer of investment-related funds); and
- c) Treaties that only contain clauses on cooperation in the area of investment and/or for a mandate for future negotiations on investment issues. Besides these two main IAs, there are also several investment-related instruments (IRIs). These include various binding and non-binding instruments such as multilateral convention on dispute settlement and rules of

¹ The Hull Rule was the customary international law, before international investment agreements that required a host country that expropriated a foreign investor's property to do a prompt, adequate and effective compensation.

arbitration, some documents adopted by international bodies (UNCTAD, International Investment Agreements Navigator, 2019).

2.2.3 Investment climate

Investment climate refers to the economic, financial and socio-political environments that determine people's willingness to operate businesses in a country (Inter-Agency Task Force on Financing for Development, 2016; Sekkat & Veganzones-Varoudakis, 2007). Although it is always commonly associated with the quality of institutions (Acemoglu, Johnson, & Robinson, 2001), Hall and Jones (1999) defined it to mean the social infrastructure of a nation that enables developing countries to benefit from trade and direct investments. A good investment climate is a requisite support system for starting and sustaining businesses in every country.

A range of both direct and indirect factors influences the investment climate in a country and determines the immensity of domestic and foreign investments. These include institutional capital (national security and judicial systems, property rights, and regulatory standards), corruption, economic freedom, political stability, infrastructure, poverty and crime (Dollar, Hallward-Driemeier & Mengistae, 2006; Contractor, Dangol, Nuruzzamana & Raghunath, 2020). Most researchers typically classify these under political institutional quality and economic institutional quality (Liedong & Frynas, 2018). An unfavourable investment climate is a major characteristic that plagues the business environment in most developing countries, especially those in Africa. Researchers argue that the number of IIAs that a country signs can influence its investment climate, since IIAs have the tendency to gradually substitute/complement domestic investment policies (Neumayer & Spess, 2005).

The investment climate in Africa has in the past two decades experienced great dynamism. This is attributed to a more positive view of FDI that has ignited significant changes in policy frameworks that govern investments. These reforms occur at domestic levels and bilateral levels with capital exporting countries and initiatives on regional economic integration (Economic Commission for Africa, 2016). Some investment policies such as the African Growth and Opportunity Act (AGOA) even prescribe policy measures that beneficiaries have to adopt at national levels to promote the rule of law, human rights and other democratic values. However, the persistence of political instability in some parts of the continent, corruption and other socio-economic challenges that are common in every country tend to reverse the gains African countries make in their quest to promote the investment climate. International media has also not been doing justice to the continent as it continues to focus on its challenges, which tend to engrain the perception of risk in the minds of investors about Africa.

Generally, factors that make a conducive investment climate can also be reformed in the short run at very low cost to attract FDI. A number of non-governmental organisations now operate with the aim of improving the investment climate of countries by channelling issues that act as barriers from investors to governments. This study adopts a political and business climate approach to measure investment climate by utilising indices of economic freedom and multiple measures of the quality of political institutions.

✓ **Economic freedom**

Economic freedom is the ability to engage in business activities without any impediments. It is a multifaceted concept that integrates the rights to free trade, free market and private property (Sambharya & Rasheed, 2015). Additionally, it incorporates the right to independent choices and freedom to engage in collective bargaining (Ghazalian & Amponsem, 2019). In a liberal economy, individuals enjoy the right to work, produce, and carry out investments as they desire (Gwartney, Lawson, & Clark, 2005).

The most commonly used indices of economic freedom are the ***Economic Freedom of the World*** that was constructed by Gwartney, Lawson and Block at the Fraser Institute in 1986, and the ***Index of Economic Freedom*** constructed by the Heritage Foundation in collaboration with the Wall Street Journal in 1995. These indices have been found to correlate positively with income per person, life expectancy and less corruption (Gwartney & Lawson, Economic Freedom of the World: 2004 annual report., 2004; Heritage Foundation, 2008; Ghazalian & Amponsem, 2019). The measure of economic freedom by The Heritage Foundation is the most popular, covering several aspects of the business and political environment. These include business freedom, trade freedom, investment freedom, property rights, monetary freedom, financial freedom, labour freedom, tax burden, judicial effectiveness, fiscal health, government spending and government integrity.

✓ **Institutional quality**

The term institutions has been defined in a variety of ways across different disciplines. According to Dutt (2011), it refers to 1) formal rules that set standards on what people can and can not do, 2) informal habits and social norms that determine how people or groups interact with each other and, 3) formal organisation of people or groups. Fundamental questions that tend to emerge from these descriptions are whether institutions reflect preferences of individuals or corporate actors? (Powell & DiMaggio, 1991). Although the discourse surrounding this conceptualisation is beyond the scope of this study, institutions in the present context can broadly refer to the social, economic and political organisations that regulate social interactions and behaviour. These organisations include the

judiciary systems, the police, enterprises, trade unions, and exist at both national and international levels.

The focus of this study is on the role of economic and political institutions on FDI. This embodies aspects of the investment climate that have been widely adopted to explain the location decisions of multinational enterprises. They represent a range of structures that influence the economic outcomes of nations. It broadly captures the rule of law, regulatory quality, government effectiveness, political stability, and control of corruption (Daude & Stein, 2007). The role of institutions is fundamental in terms of commitments to and enforcement of rules (Sekkat & Veganzones-Varoudakis, 2007). Accordingly, contract enforcement, property rights and investor protection matter because they permit agents to overcome frictions that arise when two parties with competing interests enter into a production relationship (Levchenko, 2007)

The expectation is that countries with independent and good institutions should be attractive to foreign investments since they signal the implementation of laws. Studies have shown that institutions matter for FDIs since they directly affect business operating conditions (Morrissey & Udomkerdmongkol, 2012). Phuong (2018) finds that improvements in economic institutions influenced the performance of public and private enterprises in Vietnam. However, Gillanders and Whelan (2014) purported that emphasis on the relevance of legal and political institutions may be misleading and suggested that business-friendly policies were the main predictors of income per head. Most empirical studies continue to arrive at conflicting results which requires the continuous monitoring of institutions and its impact on FDI.

There are various channels through which institutional quality enhances domestic investment climate in developing countries. As noted in Green (2018, p. 215), "Democracy may lead to better institutions, which then promote economic growth and democracy may obviate civil war through more inclusive politics". This research takes the position that democracy improves institutional quality, which improves domestic investment climates by removing political and economic instabilities. Therefore, differences in institutional quality can provide a source of comparative advantage regarding patterns of FDI flows.

Therefore, differences in institutional quality can provide a source of comparative advantage regarding patterns of FDI flows. Furthermore, questions as to how IIAs affect host countries institutions have been addressed; however, they seldom receive convincing explanations. However, anecdotal evidence suggests that IIAs have the potential to shape a country's institutional environment and influence the behaviours of investors and governments. It is one of the objectives of this dissertation to establish whether the presence of an IIA complement or substitute for domestic

institutions its interactive effects on FDI. Indices of polity scores, democracy, autocracy, corruption and executive constraints shall be employed to measure the quality of institutions in this study.

2.3 Theories of foreign direct investment

Since the end of World War II, FDI has been a vital player in the international stage on development. This led to a quantum leap in empirical and theoretical studies, culminating in a better understanding of the mechanisms and behaviours of economic agents that opened a new area of study in economic theory (Denisia, 2010). The proliferation of studies on FDI consequently resulted in a number of theories that explain why multinational companies expand their production activities beyond their domestic economies and why they choose particular destinations for investments. These resulted in a deeper understanding of both push and pull factors. According to Moosa (2002), FDI theories can be classified into: a) theories assumming perfect competition, b) theories assuming imperfect competition, c) other theories and d) theories based on other variables. Although none of the theories have been able to provide a perfect explanation of patterns of FDI flows, each has its merits in explaining some form of FDI.

Initially, several attempts were made to incorporate traditional theories of international trade in explaining FDIs. One of these was the Ricardian theory of comparative advantage. However, its assumptions of two countries, trading in two products and perfect factor mobility with no justification of capital mobility made it flawed (Makoni, 2015). The failure of this theory in explaining FDI patterns resulted in many researchers employing the portfolio allocation theory.

However, the portfolio allocation theory only attempts to create a balance between risks and rewards in a portfolio investment, and cannot adequately explain long-term investments, which is a major feature of FDI. It further assumes that as long as there is no risk or barriers to capital mobility, the interest rate differential between nations will determine the direction of capital flow, which is not realistic, especially in Africa, confronted with weak monetary policies and poorly developed capital markets.

As new and contentious theories appeared inexorable, Moon and Roehl (2001) suggested that most of them placed unnecessary emphasis on failures in the market for existing assets rather than market failure. Accordingly, MNCs also often expand activities beyond their home economies due to imperfections in the home market. These leave them with the desire to access more resources that can redress the imbalance within their firms. Basically, these theories either adopt a micro-economic or macro-economic approach.

In this section, the main theories of FDI are reviewed with an emphasis on their relevance within the African context. It should be noted here that there are as many theories of FDI as there are different motivations why firms invest abroad rather than export or outsource production. An exhaustive review of all such theories would be an exercise in futility. Therefore, the chapter focuses on the most relevant theories related to FDI.

i. **The differential rates of return theory**

The theory of differential rates of return represents one of the earliest approaches to explain patterns of FDI flows and can be traced to Watkins (1916). This theory assumes that foreign investors are risk neutral² and judge the viability of all foreign investments based only on rates of returns. It also implicitly assumes that there are no restrictions on capital mobility. Incidentally, domestic and foreign investments are treated as perfect substitutes and there seems to be no demarcation between cross-border acquisition and Greenfield Investments.

The theory generally states that capital will move from countries or regions with low rates of return to those with high return rates through a process that eventually leads to the equalisation of real rates of return. The foundation of differential rates is rooted in the desire to fully utilise fixed capital investments through the granting of low rates to businesses. Consequently, foreign investors rationally seek to equate returns with cost of capital at the margins.

The analysis is reminiscent of the narrative in the Heckscher-Ohlin model in which capital is predicted to flow from areas of relative abundance to those of relative scarcity- a situation that results in factor-price equalisation (Calvet, 1981; Denisia, 2010). Consequently, multinational companies (MNCs) operating in countries that have a higher cost of capital are likely to decline projects that maybe feasible compared to MNCs operating in countries with a lower cost of capital (Moosa, 2002).

The plausible importance of differential rates of returns in both advanced and emerging economies sparked waves of research, especially after the 2008 global financial crisis with empirical findings presenting a puzzle. Some researchers employed the expected rate of return framework to analyse the viability of FDIs while others are developing models based on the utility theory of maximisation. According to Curcuro, Thomas, and Warnock (2013), the first wave of researchers during the pre-crisis period used equation (1) to estimate an implied returns differential:

$$r_t = \frac{A_t - A_{t-1} - Flow_t}{A_{t-1}} + \frac{y_t}{A_{t-1}} \quad (2.1)$$

² Risk neutrality within this context means that foreign investors ignore all associated risks when making investment decisions and effectively consider only the expected values of the investments. This is contrary to risk adverse investors who select certainty and dislike risk.

In equation (1), A_t is defined as claims or liabilities at the end of period t , $Flow_t$ represents capital flows into or out of country i in period t and y_t stands for income(interest or dividends). Accordingly, the first term in (1) is returns due to capital gains while the second term represents income yield. Substantial differences have been found on estimates of average capital gains and can be valued using the following equation:

$$Val_t = A_t - A_{t-1} - Flows_t \quad (2.2)$$

Equation (2) shows that an estimate of capital gains can be made between start and end dates if $flows_t$ are known. Many studies have found that the USA had a special privileged position on their international investment due to total returns differentials between home and foreign assets. This was attributed primarily to direct investment yields and partly to exchange rate factor, which justified why more US firms should be set up in foreign nations (Gourinchas & Rey, 2005; Curcucu, Thomas, & Warnock, 2013; Meissner & Taylor, 2006).

In another set of studies, researchers argue that foreign investors try to maximise the present discounted value of the flow of utility. Specifically, Mishra (2016) developed a utility model of an international investment market showing how the rate of return of one economy differed from another. Accordingly, the investment decision of an MNC depends on the bottleneck parameter³ of the emerging market economy(EME). The procedure enables foreign investors to arrive at the profit maximising rate of return. The model assumes that foreign investors have a positive lower bound of utility level, which helps them in screening investment opportunities. The framework is specified in equation (3)

$$U = \int_0^{\infty} e^{-\pi t} U(Z(t)), I(t) dt \quad (2.3)$$

From model (3), the foreign investor derives utility from the consumption of good Z and Investment, I and plans to invest in an emerging market from period $0 \rightarrow \infty$. π is the discounting factor and measures the time preference of the foreign investor; therefore, the investor seeks to maximise the present discounted value of all future utilities in equation (3). Assuming that the investors initial assets are A_t , and he has a choice to either spend in Z or invest in a foreign economy, he will be facing the budget constraint in equation (4)

$$A = r(A - I) + RI - Z \quad (2.4)$$

³ “The bottleneck parameter measures restrictions on foreign investment in an EME i.e., both in access to sectors of interest and the probability that the foreign investor will obtain a rate of return on investment lower than the reservation rate of return in the domestic economy. It also captures the level of investment to investment opportunities in the economy” Mishra (2016)

A dynamic optimisation can therefore be set up as shown in equation (5) and solved to establish the marginal benefits and cost of the respective choices. The level of investment will increase with increase in the gross rate of return in the foreign market.

$$e^{-\pi t} U(Z(t)), I(t) + \lambda(t)[r(A - I) + RI - Z] \quad (2.5)$$

When the expected values are determined, the foreign investor can now decide to invest or search for more investment opportunities. The differences in utility explaining the decision to invest are due to differences in rates of returns between the domestic and the foreign economy.

Results from empirical studies have, however, been mixed with some supporting the effect of differential rates of returns on FDI (Gourinchas & Rey, 2005; Meissner & Taylor, 2006; Gourinchas & H, 2007), and others finding a less significant or inconclusive impact of differential rates of returns on both FDI and portfolio investments (Curcuru, Dvorak, & Warnock, 2008; Curcuru, Thomas, & Warnock, 2013). Within the context of Africa, FDIs should be flourishing on the continent due to its high rates of return. However, Africa remains the recipient of least amounts of FDI in its global share, which casts doubts on the validity of its propositions.

Inconsistencies in the theory could also be seen from its emphasis on a unidirectional flow of foreign capital, from countries with low rates of returns to those with high return rates and not *vice versa*; whereas, both portfolio and FDI tend to flow in both directions in the current global economy. The greatest contemporary example of this reality is the huge volume of FDI flows between the countries of the North. Specifically, inward FDI flows to developed economies were valued at \$712 billion in 2017 (37 per cent decrease from 2016), compared to \$671 billion in developing countries (World Investment Report, 2018).

Furthermore, the theory largely ignores internal motivations for FDI and other factors such as the search for a larger market size and resources. Similarly, the existence of risk and barriers in all international transactions, especially foreign investments also render the theory inappropriate in explaining capital mobility. These risks include uncertainty that such investment will earn the expected income, liquidity risk, regulatory and political risks. However, the theory still retains its relevance in explaining the direction of FDI as a function of differential rates of returns in a perfect market situation. It can also adequately explain short-term capital mobility such as portfolio investments.

ii. **The portfolio diversification theory**

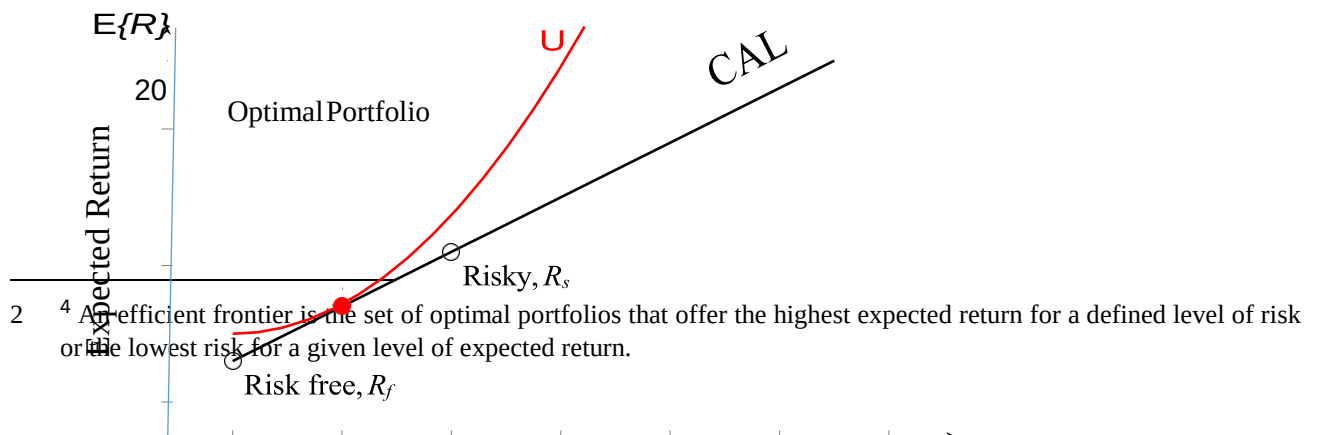
Markowitz (1952) is the proponent of the theory of portfolio diversification. He based his original hypothesis on the premise that investors can design an optimal portfolio to maximise expected

returns by taking quantifiable amounts of risk. According to Duchin and Levy (2009), the optimal diversification strategy of portfolio investment is a function of the means, variances, and pair-wise correlations of risky assets.

Therefore, risks are inherent components of rewards and investors can construct efficiency frontiers⁴ of optimal portfolios that give maximal returns at each level of risk before making an investment decision. Markowitz (1952) then suggested that instead of focusing on risks associated with individual assets that might be very volatile, diversifying such portfolios can reduce its volatility. He employed the mean-variance optimisation model for the measurement of risk.

The theory is better than the preceding one in that it relaxes the assumption of risk neutrality, thereby, including risk factor in the investors choice set. Consequently, the decision to invest in any project is a function of utility derived from it (expected rate of return) and associated risks. The portfolio diversification theory is based on the following assumptions: a) investors are rational and seek to maximise utility from their assets, b) investors have symmetric access to information on risk and returns, c) markets operate efficiently, d) investors seek to minimise all risks (are risk averse), and e) at any given level of risk, investors prefer high returns to low returns.

Theoretical frameworks on portfolio diversification have often adopted the utility optimisation model. Maier-Paape and Zhu (2018a, 2018b) have also proposed a general framework for portfolio theory based on this approach. Figure 2.1 shows a primitive efficiency frontier based on the modern portfolio theory for a single asset that can be used to invest in a portfolio. Based on this, the optimal portfolio allocation point lies on the capital allocation line (CAL), such that the investors' utility is maximised at exactly where the curve is tangential to CAL (Loualiche, 2019). In Figure 2.1, an investor can already identify the risk-free zones beneath the hyperbola, which can enable him to discard assets with less returns. A rational investor would not want to experiment on *shares* while investing in *bonds* is a feasible alternative that can provide maximum utility (see Figure 2.2). Assets such as *real estates* and *bonds* that are closer to the efficiency frontier have greater potential of producing highest returns at minimum risks.



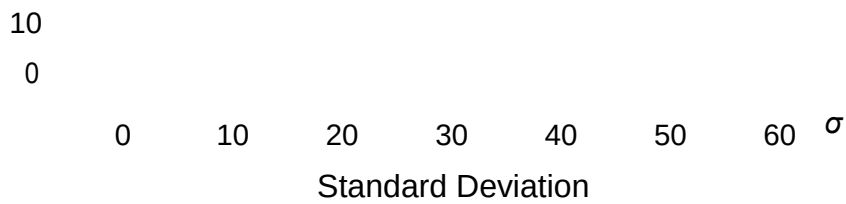


Figure 2.1 Optimal portfolio allocation

Studies empirically verifying this theory measure the flow of FDI to countries with expected rate of return and risk, measured by the variance or standard deviation of return rates as key predictors. Tabova (2013) examined the role of portfolio diversification in explaining the distribution of FDI. Risks were measured by taking the covariance between the countries' growth rate and a measure of global risk, which was a proxy for the stochastic discount factor of the investors home economy. Tabova found a strong association between risk and FDI allocation. His findings showed that more FDI flowed to countries whose growth rates correlated with the investors stochastic discount factor and less to risky countries.

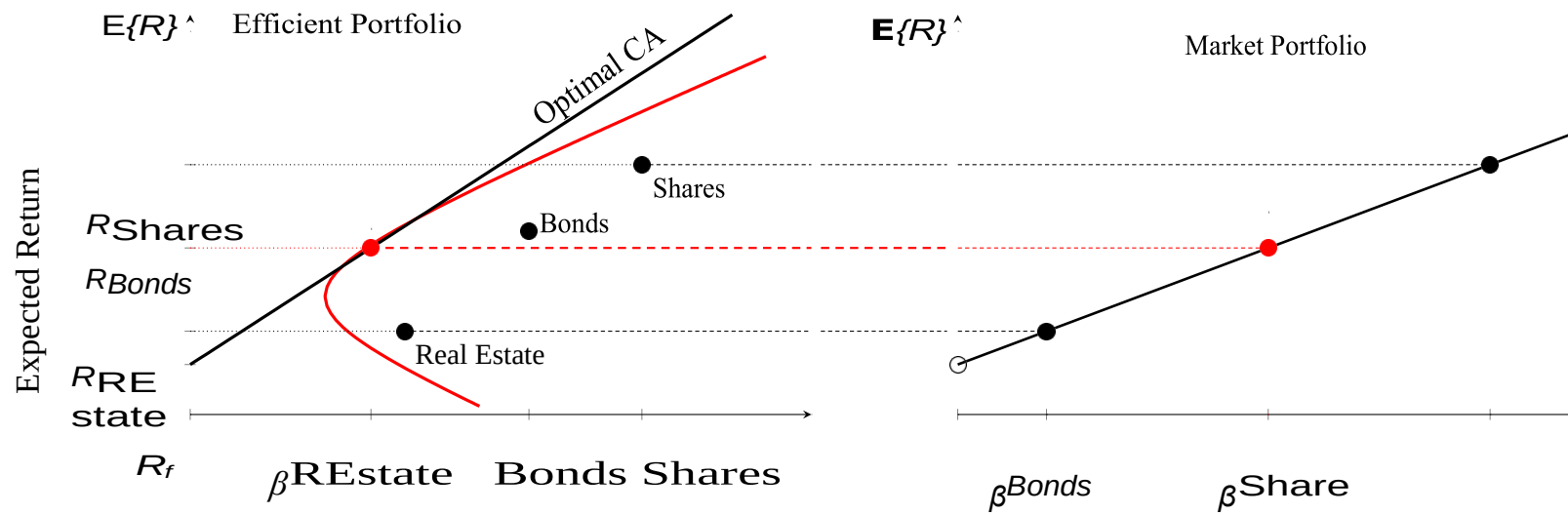


Figure 2.2 Capital and security market lines

S
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Denisia (2010) had similar results when he investigated portfolio diversification motives for FDI using relative exchange rates and their volatility as a measure of risk. He concluded that the possibility of hedging against risk significantly improved FDI flows to destination countries, albeit only for export platform FDI.

The portfolio diversification theory does not, however, explicitly explain how investors choose between portfolio investments and FDI. Therefore, it cannot adequately explain patterns in long-term investments, since portfolio investments are usually in the short-term. Furthermore, one thing almost ubiquitous with financial markets in Africa is that they are poorly developed, making it ominous for MNCs to choose portfolio investments over FDI. The assumptions that markets operate efficiently and that risk can be measured using volatility do not also seem realistic and are not supported by a bounty of evidence. Inflation, which is known to destroy the value of assets and the effect of volatile speculative stocks, is not accounted for in the theory. Some empirical studies have also found that realised returns appear to be higher than expected for low-risk securities and lower than expected for high-risk securities (Murphy, 1977). Although the beauty of this theory lies in the fact that it can be easily generalised, it seems that its primordial definition of risk was fallacious. Worthy of note here and related to the current study is that the absence of an IIA between countries can introduce more risk due to the absence of a suitable framework and related difficulties in regulating international capital transmission.

iii. **The Theory of internalization**

The preceding theories of foreign investment basically adopted a macroeconomic approach to the flow of capital. These theories did not explicitly recognise the role of entrepreneurs and firms in explaining international capital mobility. According to the 2018 statistics of Fortune Global 500, top MNEs such as Walmart, State Grid, Sinopec Group and China National Petroleum are worth more than the largest economies in Africa. Translating economic power into political influence will mean that these MNCs have more domination in international relations and policies than governments of individual countries where they invest (Buckley & Casson, 1976).

Therefore, the role of decision-makers within firms and industries could play a significant part in the trading activities and economic performance of nations. Therefore, a theory was needed that could meticulously explain why and how entrepreneurs engage in business activities across borders; and the dynamic nature of such activities especially at a time when neoclassical trade theories could not provide such desired explanations (Morgan & Katsikeas, 1976; Buckley, 2014).

Consequently, the theory of internalisation explains how and why firms choose to expand their operations beyond national borders. It owes its origins to McManus (1972), Buckley and Casson

(1976), Rugman (1981) and Hennart (1982), whose extension of the transactions cost theorem by Coase (1937) resulted therein. According to Buckley and Casson's (2009) exposition, a large number of firms use many *intermediate inputs* to generate a multiplicity of *intermediate outputs*. A fundamental question that arises is whether these activities cannot be brought under one firm in the form of *backward* or *forward integration*; a process that led to an advocacy for the *internalisation* of markets of those intermediate inputs and outputs.

Therefore, when markets for intermediate products fail, firms will be motivated to bypass them and create internal markets so as to bring activities connecting both under a common ownership and control (Buckley & Casson, 1976). Internalisation in different sectors of the economy across national boundaries eventually leads to FDI, as MNEs expand their activities to subsidiary firms to take advantage of their knowledge. This process continues until the firms marginal cost and benefits are equalised (Moosa, 2002). It assumes basically that firms' are rational and have as main objective to maximise profits. Therefore, in internalisation theory, all firm-specific advantages are efficiency based. These are, however, different from transaction-based ownership advantages as explained in Rugman (2010).

Literature has basically identified two forms of internalisation. These include knowledge internalisation, which is flows connecting research and development (R&D) to production facilities, and operational internalisation, being products flowing through successive stages of production. However, most applications of the theory have focused on R&D. Accordingly, proprietary knowledge is easier to copy when intellectual property rights are poorly delineated. When firms acquire this knowledge, which can be protected through secrecy, they tend to exploit it themselves in their production facilities without licensing to local producers, which means the knowledge market is internalised within the firms.

The development of new technologies is concentrated in a single R&D facility and is only transferred to its subsidiaries. These firms expand and become owners of different production plants abroad, and consequently multinationals (Casson, 2015). According to Buckley (2014), the theory examines costs and benefits of both internal and external markets in order to establish an optimal location across internalised markets.

Therefore, internalisation of firms eventually leads to internationalisation and this process only occurs when the perceived expected benefits by the firm are greater than the associated costs of the action. This is because it is always easier to replicate production from a newly developed technology in different locations when trade costs are high (transport cost, tariff and non-tariff barriers). These MNEs are likely to face both political and commercial risks when internalisation results in FDI due to unfamiliarity with the new business environments. Different theories of internationalisation have

subsequently emerged, among which are the *Uppsala model* and the *appropriability theory* (Johanson & Vahlne, 2009; Magee, 1981). The Uppsala model suggests that firms will first choose to enter nearby markets with low commitment while the appropriability theory studies the firm's ability to retain added value created for own benefits.

The theory offers a theoretical structure to study the behaviour of MNEs as a consequence of market failure in both the domestic and foreign markets. By shying away from licensing, internalisation also enables firms to avoid time lags, bargaining and buyer uncertainty. However, Rugman (1985) argued that the theory was too general and offered little empirical content such that it could not be tested directly. While some MNEs prefer to exploit the advantages of knowledge gap themselves in the production process, most actually will offer licenses in order to avoid risks in new business environments (Parry, 1985).

However, the idea that FDI is a consequence of internalisation is somewhat flawed because it fails to recognise that MNEs vary fundamentally and that the internationalisation process is spurred by factors both internal and external when firms employ a rationality approach to strategy. It also seems that most MNEs tend to setup new production plants but in other advanced countries with huge expenditures on R&D. This seriously weakens its ability to explain patterns of FDI flows to less developed countries. This notwithstanding, the theory remains relevant in identifying factors that motivate entrepreneurs to invest in foreign countries.

iv. **The eclectic theory (OLI paradigm)**

The eclectic paradigm is one of the most popular, simplified and comprehensive theories of FDI. Its dynamic nature accommodates heterogeneous constructs that have often been used to test theories of the determinants of FDI, both at firm-specific and macro-levels. It was proposed by Dunning (1980) when he employed an integrated approach to existing theories that sought to explain the motives of FDI. These included international trade theories, monopolistic theory (imperfect market) and the internalisation theory of FDI. He further added another dimension of location to explain why and where firms open foreign subsidiaries; who produces what goods and services in which location and why? (Nayak & Choudhury, 2014). According to Dunning (2000), the extent, geographical distribution and industrial composition of FDI by MNEs are a function of three interdependent variables that are themselves derived from three sub-paradigms.

- a) **Ownership advantages:** These are inherent competitive advantages of the MNE that wish to engage in FDI or expand its production activities across borders. According to this sub-paradigm, the greater the competitive advantages of MNEs, relative to others, particularly those in foreign countries where they intend to expand their operations, the more likely they

are to increase their foreign investments. These advantages may arise from a MNEs' ownership or access to both tangible and intangible assets, or their ability to coordinate assets with others across national boundaries in a way that benefits them more than their competitors (Dunning, 2001). These assets, which include and are not limited to information and technology, trademarks, management skills, patents and organisational structure, result in lower production cost that enables it to compete with other firms in foreign countries (Makoni, 2015). Therefore, MNEs with more ownership advantages will likely establish more production factories abroad relative to those with few of such advantages.

- b) **Locational advantages:** These refer to the attractiveness of other countries or regions in which MNEs can undertake the value-adding activities. Location advantages basically address the question of whether expansion of the MNEs' activities can best be accomplished abroad or at home. Internationalisation of the MNE requires that it should be more profitable to combine these ownership and internalisation advantages with some factor inputs located abroad. These additional input factors include human capital, natural resources, cultural, legal and institutional environment and the market structure. If this is not the case, then it would be better for the MNE to produce at home and export to the foreign market (Moosa, 2002). Therefore, the more the immobile factor inputs that firms need to combine with their ownership advantages favour production activities in a foreign, rather than in a domestic location, the more likely MNEs will choose to exploit their ownership specific advantages by engaging in foreign production (Dunning, 2001).
- c) **Internalisation:** This emanates from the *internalisation theory* and explores how firms may organise and exploit their ownership advantages given the attractive location of different countries or regions. When a firm acquires these ownership advantages, it should be profitable for it to use them itself (internalisation) rather than sell or lease them to foreign firms through licensing, franchising or contracting (Makoni, 2015). Its one of the most important of the trio in Dunning's taxonomy as it critically explains why some production activities are better carried out within a firm and others outside. Internalisation could take the form of buying goods and services in an open market, integrating intermediate product markets or a total purchase of a foreign firm. The greater the net benefits of internalising intermediate product markets, the more likely a firm will engage in FDI itself, rather than license the right to do so to a foreign firm (Dunning, 2000).

In summary, the eclectic theory of FDI asserts that firms develop competitive (O) advantages at home and then transfer these abroad to specific countries (depending on their (L) advantages) through FDI, which allows the MNE to internalise (I) the O advantages (Rugman, 2010). According to Boddewyn (1985), the more a country's firms enjoy ownership advantages, the greater the incentive they have

to internalise them, and the more profitable to exploit them outside their home country, then the higher the probability of engaging in FDI and international production (cited in Makoni, 2015).

The theory further suggests that all three conditions must be satisfied for offshore production to occur. Therefore, its' major preoccupation was to explain the origins, patterns and growth of firms' international production at a macro level (Eden & Dai, 2010). Many empirical studies such as Dunning (1980), Brouthers, Brouthers and Werner (1999), Singh and Kundu (2002), and Sethi, Guisinger, Phelan and Berg (2003) have found support for Dunning's framework.

Nonetheless, the theory has been highly criticised for incorporating too many variables that make its operationalisation a daunting task on the firm, industry, and country levels. Its all-encompassing nature turned out to be its fundamental source of weakness. It does not clearly identify constructs that can be used in empirical studies. The theory also fails to account for the role of managers in internationalisation. Similarly, it does not take into consideration the policy environments of the host nations that always have interactive effects on MNCs.

A firm that internalises its ownership advantages could face challenges of investing in a foreign nation if the investment policies are not suitable. Finally, its applicability to less developed countries has also been questioned, since firms in these regions do not always have monopolistic-specific advantages such as knowledge or technology. As a result, Dunning (1981) proposed the investment development path to overcome some of these challenges. In spite of these, the eclectic paradigm remains one of the most simplified and profound theories of FDI.

v. The investment development path (IDP)

The theory of investment development path⁵ was first proposed by Dunning (1981) and Narula (1993) as a dynamic approach within the OLI paradigm. The theory was a leap forward to help researchers decide the main reasons and location factors influencing the choice of a country as a final destination for FDI by MNEs (Galan, González-Benito, & Zuñiga-Vincente, 2007).

Accordingly, changes in the FDI position⁶ of a country can be explained in terms of ownership and internalisation advantages of its firms, relative to those of foreign countries and/or changes in location-specific advantages relative to those of other countries as perceived by both domestic and

⁵ Dunning (1981) initially proposed four stages of the investment development path, starting with pre-industrialisation without FDI. Dunning and Narula's (1993) examination later added the 5th stage

⁶ FDI position of a country or net foreign investment refers to the difference between its outward and inward direct investment stocks.

foreign firms. Therefore, there exists a dynamic interaction between inward and outward investments as both also influence structural changes in the economy.

The theory stipulates that a country's FDI follows a path that shows a dynamic relationship between its level of economic development (proxied by GDP per capita) and its net outward investment (NOI) or international investment position (Fonseca & Mendonça, 2016). It predicts five phases through which a country's firms acquire advantages relative to those in other economies and transition from a position of inward to outward direct investments. These five stages in the IDP are defined according to the propensity of a country's ability to be a net recipient or a net exporter of FDI and are a function of the relative importance of both its natural and created assets (Boudier-Bensebaa, 2008).

Its main assumption is that as countries develop, their conditions for both domestic and foreign companies change considerably and tends to affect both inbound and outbound investments (Bolton & Dewatripont, Contract theory, 2005). For that reason, development induces structural changes in the economy that have systematic relationships with patterns of FDI flows (Buckley & Castro, 1998). Proponents of the IDP theory outline that three main factors that drive FDI as the quest for natural resources, markets and strategic asset seeking. A framework of the investment development path is presented in Figure 2.3. These phases and their characteristics are discussed below.

- a) **Phase I:** According to Dunning and Narula (1996), this phase corresponds with the period in which location-specific advantages are insufficient to attract FDI. Therefore, the mostly least developed countries in the stage facing even negative net outward investment only take advantage of their natural resource endowments (Rakhi & Louis, 2011). Limited location advantages may be due to small domestic markets (low per capita income), poor infrastructure and insufficient human capital.

Consequently, foreign enterprises often prefer to either export/import to the market, or go into cooperative agreements with local firms, since O advantages are limited due to little or no accumulation of technology and consequently, insufficient capital. Dunning and Narula (1996) further explain that at this phase of the IDP, O advantages may be present in the primary sector (mining and agriculture), and manufacturing sector, albeit under strict supervision from the government to protect infant industries.

Therefore, government intervention in the form of upgrading infrastructure and the development of adequate human capital via education and training can address factors holding back development. Government also engages in several social and economic policies that can enhance structural transformation of the economy. These may include import controls, domestic content policies and the provision of export subsidies. However,

governments ability to upgrade the country's assets is likely to be limited. This stage has characteristics of least developed countries, especially landlocked nations in Africa.

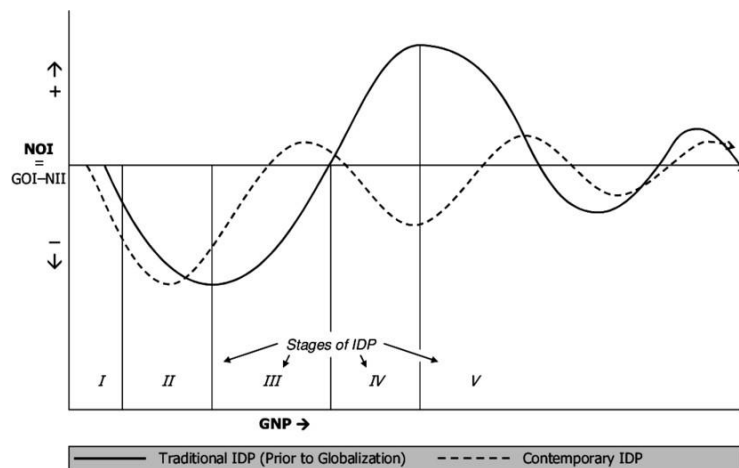


Figure 2.3 Patterns of investment development

- b) **Phase II:** At this stage, inward direct investment starts rising while outward direct investment remains low. There is an increase in population (market size) and GDP per capita in the country. These conditions start attracting foreign firms to establish factories in the economy. Similarly, the country also starts reducing its foreign dependency through local production of industrialised goods and services (import substitution), depending on their ownership (O) of intangible assets such as technology, organisational structure and trademarks.

The extent to which the governments of countries at this stage can offer the necessary infrastructure and human capital determines the quantity of inbound investments. Both tariff and non-tariff barriers can also stimulate the inflow of capital. At this stage, investments may still be in the primary sector with some forward vertical integration into labour intensive and light manufacturing.

Proponents suggest that host countries must have desirable location-specific advantages to attract inflow of capital, while acknowledging that the success of foreign firms solely depends on their economic development and the technological capabilities of domestic firms. It is expected that at this stage, ownership-specific advantages would have increased relative to the preceding one due to asset accumulation. Production gradually moves from semi-skilled to moderately skilled knowledge intensive consumer goods.

Furthermore, outward direct investment starts emerging at this stage and is either market seeking or trade related. Market-seeking ODI is likely to be directed at countries lower in their IDP compared to the home country, or towards countries higher in their IDP if the *raison d'être* is to benefit from created assets. Likewise, government policy on export subsidisation,

technology acquisition (I advantages of firms) and location specific advantages such as cost of production can also enhance ODI. However, it is unlikely that ODI can be sufficient to offset inbound investments.

Most developing countries are in this stage of their investment development path. A major concern at this stage for these countries is how to design ways of attracting investment into the countries. They must create a balance between protecting domestic investors and creating an enabling environment for foreign investors into sectors that often require heavy capital investments. There is usually a proliferation in the number of IIAs since most of them often require some degree of asset protection in foreign economies.

- c) **Phase III:** At this stage, the growth rate of inward direct investment is less spectacular relative to a rising level of outbound investments. Net FDI starts to increase, despite remaining low for some time (Salacuse, 1990). Domestic firms also develop the capability to compete with foreign firms in domestic sectors where they have developed a comparative advantage and also start penetrating foreign markets.

Technological innovations in the country also redirect production to more standardised goods. As purchasing power continues to rise, consumers start demanding high quality goods which is due in part to the growing competition from foreign and other domestic firms (Curcuro, Dvorak, & Warnock, 2008). Furthermore, the previously developed comparative advantage in labour-intensive activities reduces, domestic wages rise and outward investment is directed towards countries at lower stages of their IDP in the form of market seeking and export platform.

Since domestic firms have acquired their own competitive advantages, the initial ownership advantages of foreign firms reduce due to increasing expenditures on education and vocational training. L-specific advantages such as market size grows tremendously due to domestic inventory capacity that improves economies of scale. These shift the *raison d'être* of inward FDI from import substitution to efficiency seeking. At this stage, government-induced ownership advantages obliterate and are gradually replaced by FDI-induced O advantages. Government policies will also tend to focus more on reducing structural imperfections in resource-intensive industries.

Moreover, government also starts creating a conducive environment for inward FDI into sectors where her domestic firms have relatively weaker O advantages. These structural adjustments are required to move the country into the next phase of development. Typically, the newly industrialising nations possess these characteristics. Most of them, including South Africa, the Philippines and Turkey are in this category in their IDP.

- d) **Phase IV:** Stages 4 and 5 are purported to consist of mostly industrialised or developed countries. In the 4th stage of a country's IDP, there is a dramatic shift to a positive net outward investment position of the country as outward FDI exceed inwards FDI (Fonseca, Mendonça, & Passos, 2007). Domestic firms are now able to compete with foreign firms in sectors where they have acquired competitive advantages and they are also able to penetrate foreign markets. More capital intensive methods of production are utilised at this stage due to acquired technologies and cost of capital is also less than that of labour. Inward direct investment in this stage is directed towards asset-seeking investment by enterprises from stage 4 countries (Dunning & Lundan, 2008).

Other inbound investments from countries at a former stage are either market seeking, trade related or asset seeking. Firms strive to internalise their O advantages by engaging in FDI rather than exporting. At this stage, the government also continues with its regulatory function by developing antitrust policies to ensure that markets operate efficiently. Most emerging market economies such as Argentina, Brazil, China, India, Indonesia, Poland, South Korea, Iran, Pakistan, Russia, Saudi Arabia and Taiwan are at this stage in their investment development path.

- e) **Phase V:** Figure 3 shows that in the 5th stage of the IDP, net outward investment of a country first falls, but later starts fluctuating around zero, albeit at high levels of both inward and outward investments. Countries such as the USA, the United Kingdom and Japan are at this stage in their IDP. The countries net investment position also starts depending on short-term evaluation of exchange rates, economic cycles and firm's individual strategies, and less on characteristics of home and host nations.

Fonseca *et al.* (2007) and Buckley and Castro (1998) further explain that at this stage, there is almost complete internalisation of all transaction costs by enterprises. Similarly, there is no single country with an absolute advantage of created assets. Ownership advantages of MNEs no longer depend on the countries' natural endowments, but on their ability to organise factors of production efficiently. However, Durán and Ubeda (2001) have found some empirical lapses in the 5th stage of the investment development path, and therefore, advocated for its redefinition.

Conclusively, the theory of IDP suggests that in the first three phases of development, location-specific advantages, good government policies and the provision of good infrastructures are vital for the development of investments in the country, for FDI receivers. These are the stages that characterise most African economies, especially stage 1 that harbours 33 least developed countries in SSA. Furthermore, factors such as good institutional frameworks that can enhance development of ownership advantages in local firms,

accumulation of technological and knowledge intensive assets can accelerate investments abroad and subsequent progression into the 4th and 5th stages.

Additionally, the theory identifies three main reasons why MNEs carry out FDI. These include: a) market seeking, b) natural resource seeking, and c) strategic asset seeking. Similarly, developing countries are believed to be situated in the first two phases, i.e., newly industrialising countries in stages 2 and 3 and developed countries are in stages 4 and 5 of the development path (Galan *et al.*, 2007). As the economy grows, MNEs in stage 1 of the IDP can systematically progress from stages 1 to 5 as they acquire both ownership and internalisation advantages. Dunning, Kim, and Lin (2001) and Durán and Úbeda (2005) have calibrated postulates of the IDP with their empirical results.

vi. **The currency area Theory and the effect of exchange rates**

This theory, proposed by Aliber (1970), was an attempt to explain the flow of capital across international boundaries based on the relative strengths of currencies. It was based on the hypothesis that multinational enterprises in countries with a stronger currency will tend to invest in countries that have a weaker currency. If a country's currency depreciates, this immediately translates into lower wages and production costs relative to those of its foreign counterparts. *Ceteris paribus*, the locational advantages or attractiveness of countries experiencing a currency depreciation are always enhanced since it increases the overall rate of returns for foreign investors contemplating projects destined for such countries (Goldberg, 2009).

The hypothesis can be verified empirically by examining the impact of exchange rate on FDI. For it to be valid, an overvaluation of a currency should be associated with outward FDI while an undervalued currency should be associated with inward FDI (Moosa, 2002). While there exists empirical support for the theory (Agarwal, 1980), Froot and Stein (1991) presented a refined version based on market imperfections. Accordingly, the results of a negative association between FDI and exchange rates can be attributed to imperfections in the capital market emanating from information asymmetry. These imperfections make the cost of external financing to exceed that of internal financing. In their analysis, they found a negative association between inflow of FDI and real values of the dollar. However, their analysis fails to explain cross-investment within countries in the same monetary union and why FDI sometimes concentrates in a particular industry. Other researchers argue that a change in exchange rate leads to a change in cost and revenues. The net effect, therefore, is ambiguous as it only depends on certain factors affecting the business (Stevens, 1998).

Nonetheless, Agarwal (1980) cautions that the focus of the currency area hypothesis should be on undervaluation and overvaluation rather than appreciation and depreciation. This is because the

former is often sustainable while the latter tends to be ephemeral and could be reversed before investors make their investment decisions. The relevant exchange rate, therefore, is the real exchange rate since it is the rate that determines the country's competitiveness and economic exposure. Furthermore, there is a time lag between an appreciation of the domestic currency and the decision to expand FDI, and therefore both cannot be treated as being contemporaneous.

vii. **Other foreign direct investment Theories**

Some relevant theories commonly reviewed in order studies include: a) output and market size hypothesis, b) the product life cycle theory, and c) oligopolistic theory. The *market size hypothesis* stipulates that the amount of FDI into a host country depends on its market size. Market size can be measured using the country's GDP, sales of the MNCs or population of that country. Accordingly, when an economy expands to a level that it can warrant the exploitation of economies of scale, it becomes a potential destination of FDI. Market size is among the traditional variables often employed as a starting point to estimate the determinants of FDIs. The relevance of this strategy is based on the neoclassical theories of FDI (Lizondo, 1993).

Similarly, the *product life cycle theory* has also been employed to explain why MNCs invest abroad. It adopts a microeconomic approach to FDIs. According to Vernon (1966), while comparative cost analysis rooted in neoclassical theories scarcely failed in explaining patterns of international trade, they seldom provided adequate understanding on the process of import substitution.

As a consequence, firms' products go through a cycle of initiation, exponential growth, slowdown and decline. These phases correspond with the stages of introduction, spread, maturity and senescence commonly used in marketing theory. The theory suggests that firms will often engage in FDI at some stage of their products' life cycle that was initially produced as an innovation in some other country.

This happens when the products reach maturity and firms start facing domestic competition from others in the market. Price competition with other firms, therefore, forces the innovating firms to extend production into developing countries, in order to seek a cost advantage. It has been employed to show patterns of production, consumption, exports and imports as products go through their life cycles (Moosa, 2002). FDI is, consequently, a response to firms' rivalry adopted as a defensive strategy to maintain a competitive position in the market.

Despite its logical appeal, many researchers have expressed serious ambivalence towards the theory due to its simplicity (Day, 1981). Therefore, the narrowing down of knowledge gaps between countries and the increasing level of technological spillover have rendered the theory less plausible. Likewise, another theory of FDI dealing with strategic decision making is the *oligopolistic theory*, which has been applied to understand firms' underlying motivations behind FDI as a function of their

strategic interactions. This theory adopts a microeconomic approach towards the understanding of how firms make strategic decisions on whether or not to establish plants in foreign nations, which is a function of the expected response from moves made by their rivals. However, these firm-level studies would only be needed for studies adopting a microeconomic approach to FDI.

Finally, another popular theory often employed to explain the geographical distribution of FDI is the *agglomeration economies* or *external economies of scale*. These refer to benefits derived when output or production activities concentrate in particular areas. The theory of agglomeration economies which has its roots in urban economics postulates that once a country attracts the first mass of firms, the process will be self-reinforcing without requiring any change in policies. Consequently, multinational enterprises are often attracted to countries with existing foreign investments. Empirical studies testing this theory have either employed the lag values of FDIs as a measure of agglomeration or the percentage of urban population.

2.4 Theories of trade agreements

Today's global world has become economically more integrated ever since Smith (1937) and Ricardo (1891) enthusiastically expounded the benefits of free trade with other nations. As a result, the end of World War II marked a new beginning that saw the proliferation of both bilateral and multilateral trade agreements. Although patterns of these treaties have not generally been linear, they nonetheless have certainly played a non-negligible role in mitigating the insidious era of mercantilism⁷ by driving the world, a step towards *trading without borders*. The results have been a quantum leap in trade, political stability between member nations and a burgeoning research on whether or not these treaties matter.

Most of the theoretical literature on trade agreements has sought to address the question of why bilateral and multilateral treaties rather than unilateral agreements by independent nations are more effective in the promotion of trade and FDI between nations. Beshkar and Éric (2018) purport that the explanation lies in the terms of trade theory. Accordingly, unilateral tariff policies result in a prisoner's dilemma, whereas, bilateral and multilateral agreements serve to enforce reciprocal tariff reductions that improve on the non-cooperative equilibrium. Commitment theories have also been employed to explain the use of an external enforcement binding trade agreements to influence domestic policies.

⁷ Mercantilism, a dominant economic policy in some European countries from the 16th–18th centuries was one in which nations aimed to maximise their exports while keeping imports at minimum levels

i. **Commitment theory of trade**

Besides the terms of trade theory, commitment theory of trade is one among many others that explains why governments negotiate BITs rather than engage in unilateral trade policies. According to North and Weingast (1989), trade agreements are institutions of credible commitments that enable participants to commit to trade liberalisation through arrangements that bind and constrain them to obey a set of rules that offer an almost negligible leeway for violation (Hicks & Kim, 2012).

A distinctive feature of FDI is that it involves the creation of assets that cannot be easily sold or transformed into alternate uses in the short run without substantial cost (Büthe & Milner, 2009). This characteristic often gives host governments more leverage over investors since they are confronted with time inconsistencies in their optimal policies before and after investments are made. Prior to the investments, the optimal policy of host governments is usually to promise good investment conditions such as low taxes. Its preferences would subsequently change to extraction of rents and sometimes expropriation after investments have been made, regardless of the long-term cost (Aisbett E. , 2007; Kydland & Prescott, 1977).

Such unilateral interventions could be in the form of setting new costs of entries or exits of foreign investments, regulations on repatriation of profits or changing tariffs on imports and exports and selective application of policies that negatively affect the value of foreign assets. Therefore, foreign investors are concerned about commitment to broad liberalisations that safeguard their assets over a range of issues over time. BITs provide an important medium for treaty cooperation since they significantly influence both trade and economic liberalisation (Büthe & Milner, 2008). Another reason for the formation of investment treaties is usually the gains from trade in the form of allocative efficiency and market access (Dornbusch, 1992; Baccini & Urpelainen, 2012). The existence of BITs also reduce volatility in FDI flows.

A germane theoretical framework in BITs is the commitment theory of negotiations. It is based on the premise that “Regardless of the assurances given by the host before the investment and regardless of the intentions of the host at the time, the host can later change the rules if it feels that the existing rules are less favourable to its interests than they could be” (Guzman, 1998). It adopts a problem-solving approach that aims to maximise joint gains through commitment to fairness and efficiency (Murray J. S., 1986), and can yield insightful outcomes when synergised with a competitive theory of bargaining.

Therefore, signing BITs serves to guarantee that governments will credibly commit to prompt compensation or consent to arbitration during disputes or violation of the terms, which makes them less susceptible to the hold-up problem. Although a unilateral economic liberalisation may increase

the attractiveness of countries to FDI, such a policy shift may not be regarded as credible, especially in Africa, fraught with weak political institutions and less regard for the rule of law. Potential investors often use the number of existing BITs to evaluate governments' compliance in order to establish its credibility. The more BITs a country signs, the greater the cost of violation which can stifle future cooperations beyond contracting parties due to a breach of social norms (Snidal & Thompson, 2003). BIT participation, therefore, is perceived to be more credible since they make reneging on promises costly for host governments and are also enforceable under both domestic and international laws.

Although Aisbett (2007) argues that host governments do not necessarily have problems with commitment in the absence of BITs, some researchers contend that governments with little credibility are more likely to sign trade treaties compared to those known for their fair treatment of foreign investors. Unlike negotiations between individual firms and host governments, foreign government are usually included as a party to the treaty. It is therefore in the interest of both parties to adhere to agreed principles in good faith, since non-compliance could jeopardise important foreign relations and policy interests. BITs are viewed by investors as systems that raise the expected rate of return on investments. They also reduce uncertainty and create an attractive business environment for foreign investors. As a result, countries that sign more treaties would be expected to receive more capital from foreign nations. Maggi and Rodríguez-Clare (2007) have formerly developed the approach in a small economy while focusing on the terms of trade argument.

The implication of this theory is that it creates a conducive business environment that boost the flow of FDI between signatory nations and can have wider spillover effects through signalling as long as no new information contradicts the expected investment-friendly nature of the host country (Allee & Peinhardt, 2011). African countries are expected to benefit more from BITs with developed economies beyond the bilateral flows because they strengthen symmetric information on investments.

However, a potential weakness of this theory is that it lacks a world governing body or police that can enforce decisions of the tribunal. Aisbett (2007) reports that more than half of 110 completed investor-state disputes at the International Centre for Settlement of Investment Disputes (ICSID) ended in settlement between both parties out of court (UNCTAD, 2006). Finally, the increasing legal fees for bringing and defending a case at the arbitration tribunal also present a challenge. The Chartered Institute of Arbitrators (CI Arb) Costs of International Arbitration Survey, based on 254 arbitrations between 1991 and 2010 found that the average cost was approximately \$2.6 million.

Finally, foreign investors do not necessarily need BITs to ensure credible commitments by host governments. Most investors, in fact, prefer to secure their investments through contracts that give them promises on deals that are specific, detailed and precise relative to ambiguous promises often

found in BITs. Some of these contracts include references to international law in which the host guarantees stability that is enforceable under international arbitration. Most of these contracts are common in natural resource and infrastructure sectors (Yackee, 2007). Other ways such as investment insurance through which host governments guarantee full recovery if it breaches the contract or domestic investment laws of the host nation are not less effective in ensuring credible commitments.

ii. **The contract theory**

Another closely related theory that has been extensively applied in trade agreements is the *contract theory*. It studies the design of formal and informal agreements that motivate people with conflicting interests to take mutually beneficial actions. In essence, it gives each party the right incentives or motivations to cooperate towards a particular objective. The theory was initiated with the idea of state-contingent commodities by Arrow (1964) and choice-making under uncertainty by Neumann and Morgenstern (1944).

It was later expanded in the 1970s with the introduction of private information and hidden actions. Ideas such as incentive compatibilities and incentives for truth telling are also known to have contributed to the development of the theory (Bolton & Dewatripont, 2005). It has been extended to many fields in the social sciences and has broad applications in information economics and capital mobility in particular.

Contracts involving FDIs are usually faced with asymmetric information and are hard to enforce. Therefore, its resolutions generally rely on parties committing not to renegotiate an existing contract and the existence of a third party that is capable of enforcing penalties when one party goes off-the-equilibrium path (Antràs & Staiger, 2012). When there are doubts about a country's ability to enforce contracts fairly, negotiating and signing BITs can give it a competitive advantage in attracting FDI (Elkins *et al.*, 2006)

iii. **Terms of Trade Externality Theory**

Terms of trade (TOT) refer to the relative prices of exports to those of imports or the ratio of export to import prices. It can also mean the volume of import goods that an economy can purchase for every unit of exported good. Therefore, an improvement in a country's terms of trade is beneficial because, for every unit of good exported, the economy can afford more imports. Evidently, a country's exchange rate is an important factor that can influence its' terms of trade.

Theoretically, FDI is highly correlated with exports of a country. This is because it can lead to import substitution and also enhance domestic value chains that increase exports. If inflows of FDI have a

negative effect on TOT, this may be harmful to the economy, since the decline would signify a reduction in the purchasing power of its' exports. All else the same, this can result in a decrease in real income, which may translate into increased import prices of other goods (Wacker, Grosskurth, & Lakemann, 2014). Singer (2012) insinuated that FDI brings trade that keeps the FDI-beneficiary country in an export-specialisation poverty-trap through falling terms of trade.

Therefore, the terms of trade of every nation are often at the centre of international trade or investment negotiations since each country aims to maximise its benefits from trading with others. The traditional economic approach to TOT analysis argues that governments set tariffs in order to manipulate their terms of trade with the objective of maximising their national welfare. In these environments characterised by personal interests, such welfare driven policies undoubtedly result in some inefficiencies that can only be corrected by mutual tariff agreements.

The terms of trade theory, therefore, postulates that countries engage in trade negotiations as a means of escaping prisoner's dilemma by mutually internalising externalities that they would, otherwise, impose on each other in the absence of such treaties. Accordingly, unilateral trade policies make governments attempt to shift costs to each other, which eventually results in inefficiency. These costs can be internalised through a trade-policy cooperation. The terms of trade externality consequently provides a means through which such cost-shifting can occur (Bagwell & Staiger, 1999, 2002; Campolmi, Fadinger, & Forlati, 2012).

Therefore, trade treaties help nations to reciprocally reduce the inefficiencies that ensue from trade barriers so as to enjoy the benefits of increased trade. The theory was originally proposed by Johnson (1953). He argued that in the absence of trade agreements, countries impose tariffs that lead to retaliations and consequent trade wars, culminating in an inefficient trade protection equilibrium.

Whats more, countries that are large enough to influence the prices of goods they import often impose tariffs on them to improve their terms of trade. In retaliation, their large trading partners also impose tariffs that obliterate all gains from terms of trade. These moves and countermoves between trading partners intended at manipulating their terms of trade conceive an international externality, which presents the only rational why countries should negotiate their way out of this lose-lose game by signing a trade agreement (Tesfayesus, 2016; Ossa, 2011).

The theory assumes that there are a) two countries, i.e. home and foreign, b) both nations produce homogeneous goods and a continuum of differentiated goods, c) only differentiated goods are subject to transport costs, d) differentiated goods face monopolistic competition, while homogeneous goods are characterised by perfect competition, and e) trading countries have identical preferences, production functions, market structures and size (Campolmi *et al.*, 2012).

Different frameworks explaining the benefits of trade agreements have been developed by authors since Johnson (1953,1965). These include Krugman (1980); Grossman and Helpman (1993); Bagwell and Staiger (2011, 1999); Maggi and Rodríguez-Clare (2007); Ossa (2011); and Antràs and Staiger (2012). We summarise a theoretical framework proposed by Bagwell and Staiger (2011) which shows the relationship between changes in negotiated tariffs and demand for imports, elasticities of export supply and import volumes. This was based on a further assumption that countries engaged in trade had linear demand and supply functions as shown in equations 2.6 and 2.7 (Tesfayesus, 2016).

$$D(p) = \alpha - \delta(p) \quad (2.6)$$

$$S(p) = \lambda + \kappa(p) \quad (2.7)$$

Accordingly, $\delta'(p) > 0$ and $\kappa'(p) > 0$ while α and λ are domestic demand and supply shifters. Consequently, Bagwell and Staiger (2011) expressed the volume of imports in the domestic economy as the difference between demand and supply shown in equation 2.8.

$$M(p) = D(p) - S(p) = [\alpha - \lambda] - [\delta(p) - \kappa(p)] \quad (2.8)$$

Supposing that the importing country imposes an ad valorem⁸ tariff on all imports(τ), and further suppose that the home economy's prices(p) are linked to foreign prices(p^w) or domestic prices are linked to the international arbitrage position by $p = (1 + \tau)p^w \equiv p(\tau, p^w)$, equilibrium world price $p^w(\tau, .)$ will be determined when world demand equal world supply such that a country's import supply is satisfied by export supply. Following from these specifications, Bagwell and Staiger (2011) derived what they termed a politically optimal tariff(τ^{PO}), best response tariff(τ^{BR}), level of imports by the country($M(p(\tau^{BR}, p^{wBR}))$) and the best response world price(p^{wBR}). In an environment with non-reciprocal tariff negotiations, equation 2.9 is shown to hold

$$\tau^{PO} - \tau^{BR} = \alpha_0 + (\alpha_1 - 1) + \alpha_2 < \frac{M(p(\tau^{BR}, p^{wBR}))}{p^{wBR}} > \quad (2.9)$$

They further predicted from the TOT that $\hat{\alpha}_1 > 0$ and $\hat{\alpha}_2 > 0$ for products with constant terms of trade($r \equiv \frac{p^{wPO}}{p^{wBR}} = 1$) and when the country's political environment and elasticities of demand and supply are the same (see Bagwell & Staiger, 2011). In testing the theory, Tesfayesus (2016) hypothesised that the magnitude of must favoured nation (MFN) tariff reduction up to the post-negotiation should be larger, the higher the import value of the good, otherwise, the claim that countries negotiate to escape a prisoners dilemma should be rejected.

⁸ Ad Valorem tariffs are those that countries set as a proportion of the estimated value of goods imported or transactions concerned.

The theory assumes that trading countries have similar production technologies, preferences, market size and structure. This assumption is flawed especially when trade is between developed and developing nations. Sometimes, developing nations rely on foreign firms because of lack of technology. These foreign firms consequently act such as monopolists rather than their presumed monopolistic nature.

Therefore, the theory seldom explains the fundamental motivations of trade agreements between developed and developing countries. However, GATT's rule of reciprocity in renegotiations guides governments towards an optimal political outcome. The rules enable weak countries scared of exploitation willing to participate in trade policy. It also gives countries a window of renegotiation when the terms of trade change. This is relevant in multi-country settings as countries are often willing to trade with those that commit to GATT rules. Elkins, Guzman and Simmons (2006) have even opined that BITs have, for over 40 years, been the most relevant international legal mechanism that encourages and governs FDI. Countries with more bilateral and multilateral trade treaties can be expected to attract more investments from their trading partners.

Most empirical literature has shown that FDIs have a positive effect on terms of trade in developing countries, since it enhances the purchasing power of exports via quality upgrading (Wacker, Grosskurth & Lakemann, 2016). However, unfavourable terms of trade and export prices in developing countries were mostly attributed to the poor quality of goods they exported (commodity dependence).

2.5 Chapter conclusion

In this chapter, both related concepts, philosophical foundations and main theories that underpin the study were reviewed. The chapter situated the study within the confines of new institutional economics, and accentuated the role of property rights within the broader context of international investment agreements. However, its assumption of strategic decision making based on bounded rationality, through which agents tend to find cost minimising solutions, has been a major point of attack to new institutional economics by architects of heterodox economics (Menard, 2001). This critique is usually based on the lack of convincing mathematical models that can substantiate those claims by new institutionalists.

Theories reviewed in the study included the differential rate of return theory, portfolio diversification theory, internalisation theory, the eclectic paradigm and the theory of investment development path. Theories of trade agreements such as the commitment, contract and the terms of trade theories were

also reviewed. Other theories such as output and market size hypothesis, the product life cycle theory, the oligopolistic theory and theory of agglomeration economics were also briefly reviewed.

Accordingly, factors that theoretically drive the location decision of MNCs can be grouped into resource-seeking, market-seeking and strategic asset-seeking motives. A review of the main theories suggests that besides being too general and not easily measurable in empirical studies, there is no one best theory of FDI. Each has its weaknesses and advantages and the relevance of each depends on whether the researcher adopts a micro or macroeconomic approach to the study. Dunning's eclectic paradigm is the most popular because it employs a more integrated approach to the analysis of factors that drive FDI.

Theories of trade agreements further suggested that the welfare benefits of trade agreements largely depend on the strengths of a country in bargaining during negotiations. The existence of good institutions that can guarantee the protection of property rights is, perhaps, the most important factor that can attract multinational enterprises. There are reasons to believe that MNCs may prefer to repudiate if the treaties do not favour them, especially when dealing with less developed countries that are in need of capital and do not have the required technology, leverage, and ownership advantages required to compete internationally.

Despite these theoretical postulations, a difficult conundrum for researchers has remained the wider question of how to achieve development or address the issue of underdevelopment in Africa, and the role foreign direct investment can play in this process. It is generally argued in the literature that FDI provides an important avenue for job creation, innovation, export-growth and economic growth (Masipa, 2018). It is now 60 years since independence and investments have been streaming into different countries, yet, the continent continues to experience alarming rates of unemployment, poverty, inequality and migration. Africa is the second most populated continent, the richest in terms of natural resources, and accounts for more than one-fifth of the world's youth population.

These characteristics give Africa the leverage to become the leading FDI destination in the world. However, the continent receives less than a fair share of FDI in relation to global flows which has generally not been sustainable- something institutionalists have attributed in part to the poor quality of institutions. The multifaceted nature of this problem requires that both domestic and international institutions that facilitate international transactions be given considerable attention, not only on their effects on economic growth but also on how they mediate the inflow of direct investment.

The chapter has set the theoretical foundations for the study by giving a broad overview of theoretical underpinnings to FDI and international institutions, and the various challenges in adapting current theories in studying patterns of FDI flows. The review suggests that in order to make an appropriate

analysis of FDI in relation to IIAs in the case of Africa, one would need to transcend existing orthodoxy in order to offer a novel perspective. In subsequent chapters, IIAs would be modelled as a process of dynamic decision-making within a game-theoretic framework. In due time, however, empirical literature on the determinants of FDI would be examined in the next chapter to show the performance of these theoretical variables in relation to FDI. The chapter is critical to identifying gaps in existing literature and would also serve to calibrate the theoretical postulates in in this chapter.

3. Chapter 3 Empirical determinants of the FDIs literature review

3.1 Introduction

In the previous chapter, a review of the theoretical literature on FDI was carried out. The different strands of literature that have attempted to explain the behaviour of multinational companies (MNCs) and their decision to locate their production activities was presented. The previous chapter also briefly examined the role of different IIAs in explaining the patterns of FDI flows and particularly focused on the role of BITs in explaining the recent performance of FDI across the globe. The importance of BITs has significantly increased across the globe since the 1950s when the then West Germany signed the first BIT with Pakistan after losing all its territories during the Second World War (WWII). Since then, BITs seem to have become a dominant international legal instrument that facilitates the flow of capital. It is worth mentioning that although the nature of global production has significantly evolved since the formulation of most of the theories presented in Chapter 2 (with the unbundling of production, a reduction in tariff and non-tariff barriers to trade, an increase in the trade of intermediate goods and an expanding service sector), they have not for the most part lost their explanatory powers in explaining the nature of global production. This is particularly evident from the fact that these theoretical predictions still constitute the backbone of most empirical studies that examine the behaviour and flow of FDI and a number of their theoretical predictions are still found to be empirically consistent and viable.

The current chapter, therefore, builds upon this narrative by carrying out a comprehensive survey of the literature on the empirical determinants of FDI. It draws upon the literature that has sought to explain the production behaviour of MNCs, builds upon the literature on the role of the investment climate, focusing on the impact of some political and economic institutions, and incorporates the question of the impact of IIAs, drawing upon both strands of literature and laying an emphasis on BITs. It also reviews some studies focusing on both economic and non-economic determinants of FDI.

Accordingly, this chapter is further sub-divided into seven main sections. Section 3.2 reviews empirical literature on BITs signing proclivity, while sections 3.3 and 3.4 examines the role of BITs and TIPs, respectively, in determining the inflow of FDI. Section 3.5 examines the impact of the investment climate in determining FDI inflow, focusing on political and economic institutions and business environment variables. Section 3.6 presents empirical literature on the economic or traditional determinants of FDI, while section 3.7 identifies gaps in the empirical literature and section

3.8 concludes the chapter. The chapter is pivotal to the thesis, because it enables the researcher to identify the fundamental variables that will be used in econometric models and also identify some potential sources of data. It further identifies the main methods employed by other researchers in carrying out similar studies, challenges confronted, weaknesses and strengths of the methods that are expected to clearly pave the way for its novel contribution.

3.2 Studies on BITs signing proclivity

It has been widely shown in empirical literature that formal acceptance of investment treaties increase foreign direct investment between treaty partners. To this end, individual countries with limited capital have generally sought to satisfy this need by participating in international investment regimes. While there have been several studies on the importance of such BITs in attracting FDI from both legal and economic perspectives, there are still not many studies that examine features of countries that are more likely to participate such investment treaties. According to Ryan (2009), the scope of international investment law has also transcended the original intent of participating countries, forcing many to be more interested in scrutinising their contents, assessing their costs in relation to benefits, and in worse cases, terminating the treaties. Consequently, some studies have emerge with the intent of examining country characteristics that are likely to determine their potential interest in participating in bilateral investment treaties.

Among few studies that sought to examine why countries sign bilateral investment treaties is Swenson (2005), in the case of developing countries. The study was motivated by the surge in bilateral investments across developing countries. The author aimed to examine whether signing of BITs was investor-driven, and also whether BITs had any significant influence on the flow of investments. Results from their study showed that countries with a greater level of risk (measured with corruption) were more likely to participate in BITs, while developing countries, especially Asia were more likely to participate in BITs. The results further showed that countries that amassed greater investments previously were also more likely to attract more FDI, suggesting that BITs may be investor-driven. Finally, countries with greater per capita income were likely to attract more investments.

In a similar study, Elkins *et al.*, (2006) employed the Cox proportional hazard model to test the hypothesis that diffusion of BITs was a consequence of competition for capital. Although the authors remained agnostic about the welfare implications of such BITs, they presented sufficient evidence to show that host countries were more likely to sign BITs when others competing for foreign capital had done so. Further results showed that more corrupt states and countries obtaining a loan from the IMF may also have been coerced to sign BITs. However, they used a very complex formulation that

incorporated both host and home country characteristics in a single model. This homogeneous treatment of countries casts doubts on the general applicability of results, particularly for countries at different stages of development. Their study, however, made an in-depth attempt to provide answers on the questions of why countries sign BITs.

On their part, Jandhyala, Henisz, and Mansfield (2011) examined three waves of global diffusion in bilateral investment treaties by following a dyadic approach with 166 countries over the period 1970-2007. The authors argued that BITs have generally followed the same pattern of product innovation, although within the policy space. They identified three episodes of BITs. Period one provided a solution to the time inconsistency problem that confronts host governments. In the second period, countries sought to participate in BITs without in order to gain legitimacy but without a full understanding of the terms of the treaties. Finally, the most recent trend has been based on appropriate understanding of those treaties. Similarly, Tobin and Busch (2010) found that the presence of a BITs and a trade agreements between North-South countries made a preferential trade agreement more likely. The authors further explained that poor countries are likely to sign BITs to consolidate democracy.

In a related study by Manning (2012), the author argues that although BITs enhance the flow of foreign direct investment because they are protected through legal contracts, not all countries are interested in signing them. In their analysis using a probit regression within a dyadic approach, the study found that countries with large differences in democratic institutions and property rights are likely to enter into BITs. Therefore, BITs effectively close the institutional gap between countries. These findings are similar to those in Rosendorff and Shin (2012), who developed and tested the theory that countries with weak domestic institutions were the most likely to sign BITs, characterised as the importation of transparency. Jandhyala and Weiner (2014) finds that the existence of an IIAs reduces risk that multinational enterprises face, while Arias, Hollyer and Rosendorff (2018) attributes the popularity of BITs in autocracies relative to democracies because they enhance leadership survival by improving the investment climate.

3.3 BITs as determinants of FDI inflows

This section reviews the literature on the impact of BITs on FDI inflows. Among the earliest studies that attempted an empirical explanation of whether BITs attract FDI was a UN report in 1988 when only 265 BITs had been concluded (Salacuse & Sullivan, 2005). It noted that there was no relationship between BITs and FDI flows. An econometric study in 1998 by UNCTAD examined a cross-section of FDI into 133 countries using 1995 data in the first phase and FDI from 14 source to 72 host countries from 1971 to 1994 in the second phase. In the time series study, the report

concluded that BITs may only attract FDI at the margin, albeit its effect was larger in Africa. Results of the cross-sectional study with 1995 data showed that BITs had a significant impact on FDI. However, the main predictors of FDI were population and domestic investments. Apparently, the effect of BITs on FDI was quite weak or played only a secondary role. From these early studies, the interests of the research community have grown, and more of them have become keen in establishing mechanisms through which BITs influence FDI.

Banga (2003) observed that the increase in FDI in the previous decades was accompanied by an increased competition to attract more by developing countries. These culminated in more incentives and the removal of many restrictions that previously characterised foreign investments by host governments. The researcher then sought to examine the effectiveness of these BITs and other regional agreements on investments in Asian countries using random effects models. Findings showed that removing restrictions and signing BITs with developed countries significantly attracted FDI. Fiscal incentives were not found to attract FDI. However, the validity of the random model used was not very clear in this study as the research did not buttress on it. It is also not clear how the problem of endogeneity was addressed.

In another study, Hallward-Driemeier (2003) noted that little attention had been given to the implications of the strength of rights granted to foreign investors and obligations assumed by host nations. Therefore, there was a need to reassess the benefits of entering such agreements since foreign investors were seemingly securing more property rights through BITS than expected. The study used bilateral FDI outflows from 20 OECD countries to 31 developing countries from 1980 to 2000. A series of macroeconomic variables was used as controls in the fixed effect regression. BITs were captured using dummies, assigned a value of 1 once it was ratified between a pair of source-host countries. Interactive variables were also created with institutional quality and corruption to measure whether they were only valued in certain countries. Results showed that they had a weak or totally insignificant effect on FDI. Consequently, she concluded that ratifying BITS only helped to complement rather than substitute for good institutional quality and property rights.

However, their study presumed a unidirectional flow of FDI from a developed country that signed the treaty to a developing one. The signals sent to other investors that the developing nation was willing to protect foreign investments and its spillover effects was not specifically captured in their study and this may have underestimated its impact on aggregate FDI. Similarly, there has been a significant flow of investments between developing countries and such a dyadic approach may tend to underestimate the aggregate effects of BITs. Finally, details of the sample used in the study were not provided, which can be a source of bias to the results. Egger and Pfaffermayr (2004) in a related

study on outward stock of FDI from the OECD into 57 host countries, among which 30 were developing and four from Africa, showed that ratified BITs had a positive effect on FDI.

Salacuse and Sullivan (2005) also researched the effect of the United States' BITs and their grand bargain on FDI. This was motivated by the fact that as the number of BITs increased, this was also accompanied by an aggregate increase in FDI of upto \$1.1trillion from 1973 to 2000. FDI was measured as a percentage change in inflows to allow for comparisons between large and small markets in host countries. The first lags of covariates such as GDP, inflation and exports were taken based on theoretical justifications that foreign investors act on known information from the preceding year. Their study sample consisted of more than 100 developing countries, and had only four from Africa. Results based on OLS multivariate regression using the fixed effect model showed that US BITs increased a countrys inflows of FDI by up to 85% (robustness level was 1–5%). The study further showed that the presence of a US BIT was more effective in attracting FDI than those with OECD countries. This study purported that some BITs could be more effective than others, and that developing countries also tend to benefit from BITs more than developed nations do.

Besides using a shorter time period, it is not clear how the study controlled for country-specific heterogeneity and the mechanisms through which US BITs were more effective than those from OECD countries. However, Gallagher and Birch (2006) failed to corroborate these findings in the case of US investments in 24 Latin American countries during the period 1980 to 2003. They concluded that BITs with the United States had an independent positive effect on FDI inflows, although their presence was not associated with higher aggregate FDI. The authors note that previous studies by Salacuse and Sullivan (2005) that included only three countries from Latin America may have accounted for their results. Haftel (2010) would later show that only mutually ratified US BITs were effective in attracting more FDI.

In another study, Rose-Ackerman and Tobin (2005) sought to establish the causality between FDI, the business environment and BITs with both dyadic and non-dyadic data on FDI. FDI was measured as a percentage of world inflows. Therefore, they were interested in measuring the competitiveness of a country in attracting FDI in a particular year with respect to the number of treaties signed. BITs were measured as the natural log of its cumulative number signed by a particular country at the beginning of the time period under study. Both Random and fixed effects were utilised to model the data. The two-stage least squares (TSLS) was also used to estimate their equations. They found that BITs had a weak positive impact on FDI at low levels of risk, and a weak positive relationship between BITs and the domestic business environment. They concluded that although there seemed to be a relationship between BITs and FDI, the mechanisms through which it translates to increased FDI were not clear. However, their measure of FDI treats economies as though they were homogeneous

which may have accounted for the poor results due to unobserved country-specific heterogeneity. In a related study using dyadic analysis, the researchers found no connection between United States FDI to developing countries and BITs using data from 1980 to 2000.

As a result of these conflicting results and the challenges faced by previous studies such as restricted samples and cross-sectional dependency, Neumayer and Spess (2005) employed a broader sample covering 119 developing countries from 1970 to 2000 to investigate how BITs affect FDI. They also examined whether BITs were substitutes or complements to institutional quality using a series of interactive variables. Absolute amounts of FDI were employed as the dependent variable. Accordingly, this captures direct changes in inflows and not the relative importance of FDI to the host country in other studies. BITs were measured as its cumulative number signed within a given year by a developing country with OECD member states, and analysis were run using fixed-effect regression.

It was found that BITs significantly attracted FDI, with some limited evidence showing that they substituted for institutional quality of host nations. Perhaps, this is the only study that has had a true representation of Africa with 45 countries. Although the author's claimed that their results were more robust, it is not clear how they catered for heteroscedasticity and endogeneity which are often associated with fixed-effect regression, especially with the introduction of many lags in their models. Grosse and Trevino (2005) found that more BITS by central and Eastern European countries significantly attracted FDI. The study accounted for a series of institutional variables such as corruption, regulations, reforms on privatisation and political risk. According to them, BITs were a vital component of institutional building that reduce cost of doing business.

Banga (2006) estimated the impact of bilateral investment treaties on FDI inflows into 15 Asian developing countries for the period 1980 to 2000 and with the specific objective of examining whether signing an IIA with either a developed or developing country mattered for FDI. They found that BITs were a significant determinant of FDI. However, BITs with developed countries had a greater magnitude and more significant impact on FDI flows compared to developing countries. Consequently, their results suggested that besides fundamental economic determinants that significantly attracted FDI, policies on the FDI of host governments and IIAs were also vital in attracting inflows of FDI. Mina (2010), in using the GMM method, nonetheless, found that domestic property rights mattered more than bilateral treaties do.

Motivated by previous studies, Aisbett (2007) sought to estimate the existence of correlation or causality between FDI and BITs, and its signalling effect on other foreign investors. The author used data on bilateral FDI outflows from OECD countries to test whether BITs were a catalyst of investment in 28 low and middle-income countries. This was the first study that explicitly addressed issues of

endogeneity due to omitted variables, selection bias and serial correlation. The researcher mimics and shows that his dataset was capable of reproducing results by Salacuse and Sullivan (2005), as well as Neumayer and Spess (2005). He then goes further by employing the feasible generalised least squares regression (FGLS) to show that their results may have been due to the endogeneity of BITs. Aisbett (2007) neither found evidence to support the claim that BITs affect FDI nor signal a safe investment climate.

However, the FGLS regression in Aisbett (2007) is known to be only asymptotically efficient with large samples and could, in fact, be less efficient than OLS under small or medium samples. This feature casts doubts on the efficiency and consistency of these results since the sample size was quite small. In the event that this claim is valid, a more robust technique would be required that accurately controls for heteroscedasticity, serial correlation, omitted variables and sample selection bias.

Kerner (2009) in employing a larger sample that covered 127 developing countries from 1982 to 2001 showed that BITs with an OECD source country and another OECD country in place had both direct and indirect positive and significant effects on FDI. The study further argued that the insignificant impact of BITs in some empirical studies was due to the existence of endogeneity that most statistical models failed to address. However, empirical results by Yackee (2007), who replicated Neumayer and Spess' (2005) procedure with a similar dataset, but slightly larger sample of years, had found no evidence that BITs had a significant impact on FDI. The author neither found any correlation between BITs and a country's ratings on political risk, nor insurers of political risk taking BITs into consideration or firms believing that BITs were important in their investment decisions.

UNCTAD (2009) similarly published another investigation on the influence of investment policies in attracting FDI into developing countries. The publication noted that previous results on the effects of BITs had been ambiguous, with some showing no impact and others finding either a weak or significant effect. More recent studies that employed larger panels over a relatively longer time had shifted the debate in favour of BITs, while still recognising the importance of traditional determinants. Accordingly, the positive impact of BITs was further confirmed by surveys on the importance of BITs and other IIAs in determining the location decision of transnational corporations (TNCs). The increasing number of arbitrations cases was also further evidence that TNCs consider BITs in their investment decisions. The report also presents evidence that preferential trade and investment agreements (PTIAs) stimulate the flow of FDI, especially by addressing less visible hinderances such as host regulations and the removal of restrictions on competition that open investors to a wider market. The cost of these treaties on national sovereignty, which limits country's ability to take actions

that promote their national interests is acknowledged to be a potential drawback for most of them (UNCTAD, 2009).

Busse, Königer and Nunnenkamp (2010), in employing a gravity-type model while controlling for unilateral liberalisation, showed that BITs promote FDI inflows to developing countries and can also substitute for weak domestic institutions; which was in sharp contrast to findings by Hallward-Driemaier (2003), who concluded that BITs only served as compliments to domestic institutions. They followed the dyadic approach which has been criticised for underestimating the signalling effects of BITs. Furthermore, bilateral FDI flows between trading nations in dyadic analysis are known to contain many missing observations that can bias the estimates. Regional trade agreements (RTAs), double taxation treaties (DTTs) and the use of a common currency were also incorporated as dummies in their models. Unilateral regulatory changes were measured using the Chinn-Ito Index of capital account openness. The authors estimated a series of regressions including OLS fixed-effect, fixed-effect Poisson Pseudo maximum likelihood, which accounted for zero observations, and the systems GMM to show that their findings were consistent. However, it is not clear which of the systems GMM was used and the reasons for the choice. Finally, all BITs were treated as homogenous, while there is growing evidence that some BITs are more effective than others.

Min, Mujumdar and Rhim (2011) similarly investigated the impact of BITs on FDI inflows, using the random effects models in Asia. According to their results, BITs had a positive and significant effect before 1979. However, this effect declined significantly after the Asian financial crisis, especially with the signing of more BITs. Mina (2010) had earlier reported that institutions on domestic property rights protection were more important for investors from OECD than investment treaties in Gulf Cooperation Countries (GCC) . More surprising, the study found a negative effect on ratified BITs with upper middle income countries, compared to a strong positive effect of BITs with high income non-OECD countries.

Jandhyala and Weiner (2014) examined the influence of political risk and institutions on FDI and whether the presence of IIA among the trading nations reduced political risk faced by the MNEs. Their aim was to identify channels through which IIAs affect the value of petroleum reserves. The authors found that IIAs increased future cash flows and the value of foreign assets by limiting governments from discriminating in terms of policy changes. Furthermore, they showed those findings were mitigated by firm's reserves and ownership by the state. Their findings further showed that MNEs that were protected by IIAs paid higher amounts than those with unprotected assets, which was in contrast to Yackee (2010) and Poulsen (2010). The later authors had insinuated that some managers of MNE may not be aware of the existence of an IIA at the time of their decision to invest. The differences were attributed to sample selection. These results were substantiated by Walter and

Frenkel (2016), who found that BITs decreased the institutional distance between host and home countries when protected by an IIA, while the distance increased when protection was high.

Bhasin and Manocha (2016), in a similar study employed an augmented gravity model in both static and dynamic fashions to examine whether BITs promote FDI in India. They collected panel data from top investing countries that accounted for almost 92% of India's total inflow of FDI from 2001 to 2012. BITs were entered into the equation as a dummy variable, and analysis were done using fixed effects and two-systems generalised method of moment. Market size proxied by GDP, GDP per capita, inflation and exchange rates was also included as control variables in the model. They also incorporated distance between home and host countries and cultural distance was captured by common colonial linkage and language. Their findings were consistent with previous studies that established a positive correlation between FDI and BITs. However, common language and colonial heritage were not significant determinants of inflows in FDI, while market size and liberalisation were significantly positive.

Despite the growing interest in analysing the impact of IIAs on FDI, very few empirical studies on their effectiveness have been conducted in Africa, most of which are from a legal background. Páez (2017) reviewed BITs signed by African countries and discussed regional investment regulations within the context of harmonising investment regimes to establish that the African continental free trade area would be a viable alternative to challenges with current investment regimes. A survey by the Economic Commission for Africa (2016), reported that investment treaties do not attract much FDI, since most investments came from countries without BITs. On their part, Dagbanja (2019) corroborated these findings in the case of Ghana, while Johnson (2009) argues that BITs have mostly failed in the continent and should be amended to meet its specific realities, especially the flexibility to engage in domestic policies that foster development. Yazbek (2010) also argues that the impact of BITs on FDI in South Africa is uncertain, yet, they expose the government to damaging litigations, and may constrain rather than foster development. Although some studies in Asia tend to support the claim that BITs do enhance the flow of FDI (Banga, 2006; Bhasin & Manocha, 2016), Agrawal et al. (2017) recently found no relationship in five South Asian countries (Bangladesh, India, Pakistan, Nepal, and Sri Lanka) within a monadic framework.

3.4 Studies on the impact of treaties with investment provisions on FDI

The literature on the impact of preferential trade and investment agreements (PTIAs) on inflows of FDI is nascent and cross-cutting. It draws from a diverse theoretical foundation, which includes trade,

finance and investment theories. Most earlier studies on this subject mostly focused on either the European Union or the OECD member states and did not give sufficient attention to FDI flowing into developing regions, particularly in Africa. Until now, much of this literature has been devoted to understanding the impact of preferential trade agreements (PTAs) on FDI, focusing on some regional agreements such as the North American Free Trade Area (NAFTA), Asia Pacific Economic Cooperation (APEC) and the Association of South-east Asian Nations (ASEAN). This may be attributed to challenges in getting data from developing regions and the comparative complexity in analysing trade and FDI among integrating developing countries. However, some recent studies have started examining the impact of PTAs on FDI in developing countries (Te Velde & Bezemer, 2006; Gounder, Falvey, & Rajaguru, 2019). This recent focus has placed the spotlight on the importance of the PTAs as important examples of IIAs that influence the inflow of FDI into developing countries.

Banga (2003) for example, examined the role of regional agreements on FDI, focusing on the APEC Non-Binding Investment Principles of 1994 and the ASEAN Investment Area Agreement of 1999. The study findings of this study showed that membership with APEC significantly increased FDI inflows into the region whereas membership with the ASEAN investment area agreement did not. They, however, argued that although the ASEAN membership did not seem to be determinant in increasing the inflow of FDI into the region, there was the possibility that this could change with time, since these ASEAN Investment Agreements were relatively new at the time of their investigation .

Te Velde and Bezemer (2006), on the other hand, examined the role of regional integration on FDI inflow into selected developing countries. They were motivated by the desire to understand why some regions attracted more FDI than others from 1980 to 2000. Similar previous empirical studies had mostly treated RTAs as a black box, and they argued that there was a need to identify the effects of specific investment provisions in RTAs. The authors noted that joining an RTA was not a sufficient condition that would guarantee that there would be increased inflows of FDI due to the heterogeneous nature of some regional trading agreements. They found that RTAs such as ANDEAN, ASEAN, CARICOM and NAFTA have had a positive effect on FDI from the United Kingdom and the United States. They also found that RTAs with more TIPs attract more inward FDI while countries with large economies and those geographically closer to larger countries attracted more FDI. Their conclusion was that in most cases, regionalisation benefited all countries in terms of increased FDI. Kreinin and Plummer (2008) conducted a similar study and arrived at similar results. They found that regional integration was effective in attracting FDI in the case of the European Union (EU), NAFTA, MERCOSUR and ASEAN. They found that this was mostly due to the effect of investment creation and to a lesser extent investment diversion. Their study also found that, in most instances, FDI inflows that responded to the process of regionalisation were acting as a substitute for trade in a large

number of the cases examined. They captured the existence of any regional integration arrangement in their models through the use of binary variables.

Feils and Rahman (2008) in their part examined whether free trade agreements encouraged inward FDI in the case of NAFTA from 1981 to 2001, using pooled cross-sectional time series regressions. The study also examined the effects on three partner countries, namely, Canada, the USA and Mexico. They found that although NAFTA had a positive impact on FDI inflows into the region as a whole, the benefits seemed to accrue more to Canada and the United States while the impact on Mexico seemed to be more negative. They also found that the presence of the FTA also significantly changed the underlying FDI policy in the United States and in Canada, and that most of the benefits from NAFTA seem to have gone to the United states, which is in agreement with the literature on the effects of large economies in FTAs.

Büthe and Milner (2008) on their part carried out an investigation to determine whether FDI can be increased through the establishment of trade agreements. They hypothesised that members of the the World Trade Organisation (WTO) and countries with more PTAs were likely to receive higher levels of inward FDI. Their study covered the years 1970 to 2000 and was based on a sample of 122 developing countries. Membership in WTO was captured using a dichotomous variable, while data on PTAs were collected from Jon Pavehouse. The study used a series of techniques and instrumental variables previously employed in similar studies to control for endogeneity. They also showed that their parameters were consistent across all models. Political instability was found to reduce inflow of FDI, while membership in WTO and PTAs increased inward FDI. Therefore, developing countries that were signatories realised substantively higher levels of FDI inflows.

On a country level study, Hong (2008) examined the importance of WTO accession on FDI in China. The study employed the random effects panel data model over an 11-year period and also examined the relevance of urban characteristics across Chinese cities. Accordingly, WTO membership was found to be an important factor in determining FDI in China. Moreso, it was found that agglomeration economies also attracted FDI, whereas the effect of market size and governments preferential policies started decreasing after China joined the WTO. They also found that cheap labour was a determining factor on China's FDI attractiveness whereas transportation costs were not found to be statistically significant.

Ismail, Smith and Kugler (2009) also investigated the effect of regional economic integration on FDI on ASEAN member countries after the free trade agreement became operational in 1992. They employed a gravity-type model and found that market size and income per person were positive determinants of FDI in all estimations. They also found that FDI was a compliment to trade, and therefore, policy reforms after implementing the ASEAN Free Trade Area (AFTA) increased both

trade and FDI in the region. Further analysis indicated that original ASEAN members did not invest much in each other, while European countries were the largest investors after the Regional Economic Integration (REI). Their study concluded that although REI was an important determinant in attracting FDI, it was the responsibility of the individual countries to further liberalise their investment policies in order to create a more attractive environment for FDI.

In a related study by Feils and Rahman (2011), the authors assessed the impact of REI on insider and outsider FDI. Their interest was in examining whether accession to a regional investment agreement could increase FDI flows and also change structural regimes of the determinants of FDI. In either case, their findings were in the affirmative. Host country market size and cultural distance became less important determinants of FDI once the nation joined the Regional Investment Agreement (RIA) while institutional efficiency started having a positive and significant impact on FDI compared to when the nation was outside the economic integration. Further analysis showed that larger members benefited from the integration more than the smaller ones did, while insider FDI was not sensitive to cost of labour. Nevertheless, the study was complimentary and added more insight into the debate on the importance of regionalism in trade vis-à-vis globalisation.

Foster, Poeschl and Stehrer (2011) on their part investigated the trade creating effects of PTA from 1962 to 2000. The authors examined whether the effects of PTA occurred through a variety of exports or through the volume of existing exports using a gravity-type model and the marching approach. They used a dummy variable to indicate the presence of a PTA. Results showed a positive response from exports to the existence of a PTA, and a greater share of the effect occurred along the extensive margin (variety of exports traded). The effect was even greater among larger exporters and in large country pairs. The study further found that the inverse of distance between city centres, remoteness or countries sharing a common continent and real GDP significantly influence the treaty signing proclivity of countries.

Cardamone and Scoppola (2012), examined the influence of PTAs on outward FDI from EU firms into 173 developing countries from 1995 to 2005. Their analysis, which estimated the effects of trade and deep integration provisions in PTAs, was based on the knowledge-capital theory of the multinational enterprise. Heterogeneity bias was taken care of by including country-specific fixed effects in the estimation. They found that tariffs significantly affected patterns of outward FDI in EU firms. While EU tariffs retarded outward FDI, those of host nations significantly varied across groups of countries. Furthermore, provisions for deep integration positively attracted EU FDI, although the effect reduced significantly in developing countries that had an existing PTA with the EU. They argued that, although PTAs benefit developing countries, it could also result in significant diversion of

investments if multinational firms found it profitable to exploit economies of scale by concentrating production activities in a particular country.

Chala and Lee (2015) used the fixed-effect Poisson pseudo maximum likelihood method to show that regional trade agreements discourage bilateral Greenfield investments from OECD to high-income country pairs, but encourages FDI to non-high-income countries. Sanguinetti, Siedschlag and Martincus (2010) had earlier argued that PTAs could lead to significant reallocation of resources across different sectors of the economy and countries. In their empirical test on the effectiveness of PTAs, they found that preferential trade liberalisation had shifted manufacturing along comparative advantages in labour and skilled labour. The study was unique in that it examined South-South trade, rather than the conventional North-South trade flows. Hicks and Kim (2012) argued that although RTAs were being perceived as credible commitments to trade liberalisation, some of them were weaker than others as they did not clearly define mechanisms for settlement of disputes, which was detrimental to trade.

Chemutai and Escaith (2017) assessed the importance of WTO accession on economic growth variables such as trade and investments. The authors argued that such access enhances domestic reforms that improve the supply side of economies. They found that the effect of WTO membership on trade/GDP ratio was significantly higher than previous studies in developing countries had established, both in quantitative and qualitative analysis. However, their results on foreign and domestic investments were inconclusive, though somewhat encouraging.

In a recent study by Gounder, Falvey and Rajaguru (2019), the authors examined the impact of PTAs on FDI in the African Caribbean Pacific Region. They empirically analysed bilateral FDI stocks from 34 OECD nations into 45 African, Caribbean and Pacific (ACP) countries using an augmented gravity model with panel data from 2000 to 2017. Results showed that PTAs did not significantly influence FDI in the Caribbean, while the effect in Africa depended on the existence of a BIT. Further findings showed that market size was an important determinant of FDI in the ACP in general, and the African and the Caribbean subsamples in particular. There is a need for studies on the importance of regional economic integration in Africa, given their popularity and diverse nature.

A recent report by the World Bank on the economic and distributional effects of the AfCFTA projects that implementing the agreement would reduce extreme poverty by an additional 30 million people, while gains in real income could grow by US\$450 billion (7 per cent). The initiative is also peculiar in Africa because it can provide long-term reforms and integration in countries facing serious challenges in the management of COVID-19. Accordingly, Africa's volume of total exports is also expected to grow by 29 per cent in 2035, export between African countries are expected to increase by 81 per

cent, while exports to non-African countries would increase by 19 per cent thereby enhancing the manufacturing sector and creating job opportunities (World Bank, 2020).

Other empirical studies using computable generalised equilibrium (CGE) and structural trade models to examine the implications of the AfCFTA on economic development and trade arrive at a common conclusion that there would be improvements in the welfare of African countries (Jensen & Sandrey, 2015; Saygili, Ralf, & Knebel, 2018; Abrego, Amado, Gursoy, Garth, & Hector, 2019). However, Obeng-Odoom (2020) cautions that its exclusive focus on trade without encouraging private appropriation of socially desirable land rents could be an impediment towards the attainment of its goals, and may instead foster inequality. Consequently, Obeng-Odoom recommends that only true free trade within the spirit of Pan-Africanism can decolonise trade. Given that the AfCFTA is a relatively young regional trade agreement, there is still a need for more studies on its potentials, not only on trade but in fostering intra-continental investments in Africa.

3.5 Studies on the impact of investment climate on FDI

Despite efforts by African governments to attract FDI by improving their policy frameworks, high rates of returns and signs of renewed economic activities and improvements in infrastructures, Africa has largely been bypassed by the FDI boom (Odusola, 2018; Vinesh *et al.*, 2014). There was a need to re-examine why attracting optimal levels of FDI had mostly suffered. These sparked interests in the non-economic determinants of FDI into the continent.

These include institutional capital (security and judicial systems, property rights, and regulatory standards), corruption, and freedom of doing business. However, corruption does not seem to hinder FDI in absolute terms outside Africa, which presents a paradox. For instance, Brazil, China, Thailand and Mexico attract very large flows of FDI despite their perceived levels of corruption. This is similar in the industrialised nations such as Italy with high levels of corruption but receiving substantial amounts of inflows in FDI. Belgium with similar ratings on corruption also receives modest levels of FDI. The problem of low inflows in FDI may therefore be multifaceted, and addressing such a paradox requires careful analysis within different contexts (Habib & Zurawicki, 2002). Generally, countries with lower levels of corruption, risk of expropriation, good democratic institutions and good investment climate are expected to attract more FDI (Zhao, Kim, & Du, 2003; Busse & Hefeker, 2007; Bénassy-Quéré, Coupet, & Mayer, 2007). Many empirical studies have investigated this relationship.

In their study using 89 developed and developing countries, Habib and Zurawicki (2002) confirmed that corruption had a negative effect on FDI. They then suggested that investors should include corruption in their business model before locating their investments in some areas. However,

Ardiyanto (2012) found that corruption was only bad for inflows of FDI in developed countries, but actually attracted it in developing nations.

Dollar, Hallward-Driemeier and Mengistae (2006), in using a large sample from a firm-level survey from the Americas and Asian countries, examined the influence of investment climate on international integration. Investment climate was measured using customs clearance, reliability of infrastructure and the quality of financial services. According to their estimates using the probit function, a good investment climate increase the likelihood of a firm having foreign investments.

Biglaiser and DeRouen (2006) researched the influence of economic reforms on FDI in Latin America. Accordingly, Latin American countries had implemented market-oriented policy reforms, hoping that they would signal government's creditworthiness and good intentions towards potential foreign investors. economic reforms such as tax laws, trade liberalisation, privatisation, domestic financial reforms and barriers to international capital flows were posited to be fundamental in attracting FDI. They also collected and analysed data on the risk of expropriation, societal conflict, corruption and democracy. Analysis were done using the panel-corrected standard error (PCSE) procedure. Their results showed that reduced country risk and property rights increased investor's confidence. Contrary to previous knowledge, the likelihood of FDI inflows was similar under authoritarian and democratic rules. However, Reed and Webb (2010) have questioned the robustness of this technique.

Bénassy-Quéré, Coupet and Mayer (2007), specifically investigated the institutional factors that influenced the flow of foreign investments. The researchers used incipient instruments based on the the latitudes and longitude of countries to control for reverse causality. They also controlled for potential collinearity between GDP per capita and institutional quality. Accordingly, those instruments correlated with most institutional variables but did not have any direct effect on bilateral FDI. They also did not use landlockness as instruments because it can be a source of impediment for FDI. They found that institutions matter independent of GDP. Specifically, they asserted that bureaucracy, corruption, information and legal institions are important determinants of FDI.

According to Kisunko, Brunetti and Weder (1999), political instability increases uncertainty, which makes countries less attractive to FDI. Busse and Hefeker (2007) also found that government stability, democratic accountability, law and order, and quality of bureaucracy were significant determinants of FDI. Most of these studies generally find that political institutions and less corruption reduce risks associated with investments (Bayraktar, 2013; Biglaiser & DeRouen, 2006). Bah and Fang (2015) showed that investors lose significant sales due to regulations, inadequate infrastructure and corruption, which result in lower output and productivity.

Ali, Fiess and MacDonald (2010) investigated the role of institutions in determining the flow of FDI using a panel of 107 countries between 1981 and 2005. The authors argued that institutional indicators tend to exhibit little variation over time, and therefore, inferences on their effects should be based on large samples that can possibly represent the global market over a longer period. The International Country Risk Guide Index (ICRG) was used as a proxy to institutional quality. They found that institutions were a significant determinant of FDI, although the relevant aspects of institutions were those linked with property rights and expropriation risk (Anyanwu, 2012).

A study by Lipsey and Sjöholm (2011) established that poor investment climate (IC) and weak institutions were responsible for the low flow of FDI in Indonesia relative to other East Asian countries. In a related study, Peres, Ameer and Xu (2018) argued that insignificance in the coefficients of institutions in developing countries relative to developed ones could be attributed to the weak structure of institutions. Similarly, Sabir, Rafique and Abbas (2019), concluded that institutions were the most important determinant of FDI in developed countries.

Zheng (2011) challenged conventional wisdom by arguing that policy credibility is a crucial but not sufficient institutional determinant of FDI. The study found that political institutions create a tradeoff between credibility and flexibility, thereby injecting uncertainty in the investors expectations, with its cumulative effects on investors being nonlinear and conditional. Therefore, countries with more veto power will give investors more freedom, which is beneficial for FDI. Bellos and Subasat (2012) and Morrissey and Udomkerdmongkol (2012) confirm the governance-enhancing role on FDI in selected Latin American and 46 developing countries respectively. Blanton and Blanton (2012), however, found mixed results on the importance of institutions as prospective determinants of US investment flows. Both bilateral investment agreements and democracy were negatively related to FDI. They attributed these poor results to their focus on only one home country with investments flowing mostly to small developing nations. Finally, they found human rights, especially personal integrity, labour rights and access to education to be significant determinants of FDI. In a similar study, Wisniewski and Pathan (2014) found that FDI was attracted to countries with presidential systems of government, established political parties and where the executive controlled all houses with lawmaking powers.

Similarly, Bayraktar (2013) investigated the effects of the ease of doing business indicators on the inflows of FDI. They collected data from the World Bank's Doing Business Database from 2004 to 2010. Findings based on correlation analysis showed that countries with better records of doing business attracted more FDIs. This study utilised a broad sample of both developed and developing countries to derive this conclusion. Furthermore, using a fixed effect model and a dynamic panel model for a data sample of 33 developing and transition countries from 1996 to 2008, Krifa-Schneider and Matei (2010) found that reduced levels of political risk and a favourable business climate attract

inflows of FDI. In another study of 14 ECOWAS nations using a random effects model, Ajide and Eregha (2014), found that financial freedom was positive and significant in attracting FDI, while property rights were not. Rozans (2016), on the impact of economic freedom in the Baltic, concludes that intellectual property rights were an important determinant of FDIs. In a related study by Lee and Lio (2016), they found that foreign investments improved governance and reduced corruption in Chinese provinces. Empirical results are mixed and the absolute effect may depend on the context. Finally, most studies do not identify participants involved in corruption. In whatever case, corruption is anti-developmental and has damaging consequences on the private sector, which remains an engine of growth in most developing economies. Countries prioritising inflows of FDI must ensure reducing corruption in the country, because its persistence can send negative signals about the rule of law, property rights and commitment to investment treaties.

Evidently, all empirical studies arrive at the conclusion that institutional quality and other components that shape the domestic investment climate are vital as they have independent and positive effects on FDI. A more intriguing question, however, is how the presence of investment treaties mediate with investment climate variables, i.e. does the presence of these treaties attract more investments and what are their interactive effects with institutional quality on FDI (Bonnitcha, 2017)? Although studies have used various approaches in addressing the issue, the debate continues as more research arrives at conflicting outcomes.

Ullah, Anees, Ali and Khan (2018) found a significant positive relationship between economic freedom and private capital flows for six South Asian countries while using the systems generalised method of moments (GMM). Similarly, Kapuria-Foreman (2007) and Ghazalian and Amponsem (2019) found that FDI responded positively to some components of economic freedom. Dkhili and Dhiab (2018) corroborated these results using GCC countries.

Moussa, Çaha and Karagöz (2016) reported that the largest impact of economic freedom was in European countries and the least was in Oceania and conflict-affected states. According to Hornberger, Battat and Kusek (2011), the IC, proxied by business regulations and government support, was the third most important factor influencing FDI in almost 30000 projects for which a location determinant was identified in its market database. Similarly, James (2009) found that although lowering effective tax rates positively correlated with FDI, the effect was eight-fold stronger in a conducive business environment.

Generally, there exists a strong association between both business climate variables and institutional quality on FDI in the sense that they act as incentives to foreign firms by guaranteeing stability in their profit equations. However, association does not translate to causation, and the causal chains can be difficult to disentangle (Cox, 2008). It could be that it is FDI that drives the business

environment and institutional quality. Consequently, limited evidence exists on what works well and there is a need for more rigorous empirical studies that can unpack the challenges through which institutional quality and business environmental factors influence FDI.

3.6 Economic determinants of FDI

i. Current and potential market size

Market size and its growth prospects have been empirically established to be vital factors that attract market-seeking multinationals to establish factories in a country. Investors typically wish to locate their foreign plants in countries with favourable growth prospects, larger market size and economic development since they provide them with opportunities to exploit their locational advantages and enjoy economies of scale (market-seeking FDI). Generally, a country's macro-economic environment plays a vital role in determining the performance of firm's investments within its territory. Some researchers even suggests the establishment of regional economic blocks, especially for smaller countries in terms of population and income to expand their market size and attract FDI (Asiedu, 2006).

However, market size may not be a relevant factor when the multinational firm produces goods aimed at exports or targeting the international market (efficiency-seeking FDI). In many studies, it is usually measured using the logarithm of total population of the country (Foster, Poeschl & Stehrer, 2011; Rose-Ackerman & Tobin, 2005), nominal GDP, real GDP or GDP per capita (Büthe & Milner, 2008; Campos & Kinoshita, 2010). In all these studies, market size was shown to significantly attract FDI.

ii. Economic development

Economic development is a policy intervention endeavour aimed at improving the economic and social welfare of people. While FDI is known to provide a vigorous impetus for economic development across many countries by serving as a source of supply of funds for domestic investment, and promoting capital formation in host countries, both theoretical and empirical research has shown that higher levels of economic development accelerate business activities and provide a conducive environment for its inflows (Haftel, 2010). Economic development specifically offers better returns on investments and should be more attractive for foreign investors. GDP per capita has been employed in several studies as a measure of economic development.

iii. Macroeconomic stability

Governments' fiscal balance, interest rates and foreign exchange rates are often used as measures of economic health and stability of the host country. Countries with sustained financial stability,

prudent fiscal policies, low inflation without abrupt exchange rate movements or sudden interest rate fluctuations are likely to earn the trust of investors and attract foreign investments (Gracia Andía, Rivas, & Sanz, 2006). Naturally, most multinational companies prefer to invest in countries devoid of macro-economic uncertainty (Elijah & Egwaikhide, 2008). Fundamental measures of stability found to determine FDI are discussed below:

a) Inflation

One measure of a stable macroeconomic environment is the history of price stability through inflation. Empirically, the relationship between FDI and inflation has been found to be ambiguous. Foreign companies with large-scale borrowing in local currency benefit from unanticipated inflation. On the other hand, such domestic policy failures discourage both savings and investment (Shah, 2017; Gracia Andía, Rivas, & Sanz, 2006). High inflation rates may indicate inability or failure of the central bank to conduct an appropriate monetary policy, which adds to foreign investors' scepticism. When the general price level in a country tends to be unstable, potential investors find it difficult to make short-term pricing decisions. Macroeconomic stability ought to be an important determinant of foreign investment. However, and for the reasons advanced above, many foreign investors may avoid establishing companies in countries with high levels of inflation. Therefore, most studies generally expect inflation to have a negative impact on foreign investment.

b) Real exchange rate

Foreign exchange risk is also a measure of macroeconomic stability. Exchange rates have great consequences when foreigners invest in a host country. Profitable transactions could turn unprofitable when exchange rates suddenly move in the wrong direction. Exchange rate levels and volatility have been theoretically found to exhibit an impact on FDI, albeit ambiguous. The effects of exchange rates often depend on the destination of the produced goods and reason for FDI. An appreciation of the currency will attract FDI if it is targeting the domestic market. If the multinational imports a great deal of raw material from abroad, appreciation of the local currency benefits them by decreasing their cost of production and increasing their local market share (Baek, 2013). On the contrary, if their raw material imports are negligible, it will make its exports expensive and uncompetitive in the overseas markets (Rangkulnuwat & Paweenawat, 2015).

Concerning a currency depreciation, there is mixed evidence on how a fall in the value of a currency affect FDI inflows. Apparently, foreign investors may gain or lose from a depreciating exchange rate. In terms of gain, they may have more buying power in host countries. Consequently, they can gain a larger foreign capacity for the same amount of home-country capital. Furthermore, they can produce more cheaply when a real exchange rate depreciates; therefore, they can export more easily and

gain from resource-seeking FDI. However, foreign investors may lose because they must incur costs to prevent transaction and translation losses when currencies depreciate. If they believe that depreciation will continue after they enter a country, they may conclude that costs will be too high to justify their investments (Trevino, Daniels, & Arbelaez, 2002). Similarly, currency devaluations and revaluations also affect capital mobility in the same fashion.

iv. **Infrastructure**

The pivotal role of infrastructure on economic growth and development is very visible. Aschauer (1989) asserted that the stock of public infrastructure is an important driver of aggregate total factor productivity and increases growth. Investments in infrastructure enhance private sector activities by lowering the cost of production and opening new markets, presenting new production opportunities and attracting foreign investors. The UK Department for International Development reiterates that the channels through which infrastructure influences sustainable growth and development range from reducing transaction costs and facilitating trade flows within and across borders. It also enables economic actors to respond to new types of demand in different places, lowers the costs of inputs for entrepreneurs or makes existing businesses more profitable (DFID, 2002). Therefore, foreign investors are mostly attracted to countries with good infrastructures.

Different forms of infrastructure have been defined in the literature. These include economic (transport [electricity, telecommunication]), social (education, health, security and defence or military) and financial infrastructures. Many studies have also employed various measures of infrastructure, quantifiable in both monetary and physical units. These include the numbers of electricity power production, telephones, mobile phone lines or internet users per 1,000 inhabitants, total number of airline passengers (Campos & Kinoshita, 2010; Clougherty & Grajek, 2006; Banga, 2006). However, these measures do not truly represent aggregate infrastructure as they only attempt to incorporate a portion of its economic dimension. As a result, Asiedu (2004) suggested the use of gross fixed capital formation since it covers land improvements, road construction, railways, schools, hospitals and industrial buildings. In all specifications, literature has mostly found infrastructure to be a positive correlate of FDI (Basu, Hicks, & Sappey, 2006; Becerril Torres, Alvarez Ayuso, Del Moral Barrera, & Vergara GonzAlez, 2009).

v. **Financial health**

This is an analysis of a country's foreign financial obligations relative to its ongoing and prospective economic situation. If a country is able to meet payments of interests and foreign debts, it is an indication of creditworthiness and financial health, which attracts FDI (Tortiana, 2007). However, failure to meet such financial obligations can deter foreign investors. Ratios such as external debt to

export revenues, total external debt to output, and total debt services to export revenues are often employed by financial analysts to assess the creditworthiness of a nation. Most studies measure financial health by using the ratio of external debts to exports revenue and/or the ratio of external debts to gross national income of the country. The expectation is always to have a positive coefficient.

vi. **Human resource development, productivity and cost**

Human capital represents the knowledge and skills embodied in humans that are acquired through schooling, training and experience, and are useful in the production of goods, services and further knowledge. It is one of the main drivers of innovation and economic development. One major channel of knowledge transfer and the acquisition of skills is through FDI. Both theoretical and empirical research has shown that the stock of human capital available in a country attracts FDI (Romer, 1986, 1990; Suliman & Mollick, 2009).

This is peculiar in resource and efficiency-seeking FDI. Availability and high quality labour also show that a country is ready to benefit from technological and scientific progress, since it can learn and adopt it faster. Labour quality can be reflected in the level of academic attainment in the labour force. Most empirical studies tend to employ the total number of secondary school enrolment as a proxy for labour quality. Furthermore, the cost of human capital in a country and the activities of labour unions may also deter or attract investors.

vii. **Natural resources**

The nexus between natural resources and FDI has been well investigated in the literature. Because of the high capital and the sophisticated technology required to extract natural resources, most of its activities are often financed by foreign multinational companies in developing countries. Asiedu (2013) notes that the share of oil production by foreign firms was 57% in SSA compared to countries such as Kuwait, Mexico, and Saudi Arabia where oil production is solely by domestic firms. Anecdotal evidence further suggests that investments in natural resources, particularly in the oil sector, have been widely successful in SSA despite its associated risks. This makes discussions on FDI flows almost incomplete without natural-resources, which often make up a great portion of its inflows, particularly in resource rich SSA. Asiedu (2013) utilised the share of fuel in total merchandise exports to as a measure of natural resources to show that it significantly attracted FDI in SSA. Natural resource endowments are expected to have a significant effect on FDI.

Vinesh, Boopendra and Hemraze (2014) researched the determinants of FDI in SADC for the period of 1985 to 2010 using a vector error correction Model (VECM). Findings showed that trade openness, gross domestic product, natural resources and secondary school enrolment rate were the most

significant determinants of FDI in SADC. While this study was relevant in predicting short and long-run determinants of inflows of FDI, it did, however, target a small sample of countries (14).

3.7 Research gaps

After reviewing literature, several gaps have been identified. These are enumerated below:

A. There is paucity of research on the effects of IIAs on FDI in Africa

Firstly, there are not many studies on the effects of investment agreements in African countries, and most existing ones are from a legal background. We are not also aware of rigorous econometric studies on the impact of BITs in Africa, which makes it difficult to ascertain their effectiveness. Previous studies mostly subsumed them under developing nations (Busse *et al.*, 2010; Haftel, 2010; Tobin & Busch, 2010; Neumayer & Spess, 2005), despite the clear heterogeneity among such nations, both in terms of development and technological advancement. Although a recently published paper by Gounder, Falvey and Rajaguru (2019) addressed the case of PTAs on the African Caribbean Pacific regions, there are also very few existing studies on the impact of regional economic integration on FDI in Africa. Given that this region faces serious developmental constraints, and FDI can provide important opportunities, most countries in the region have often resorted to signing treaties as a way of attracting more capital. Official development assistance from Western countries that used to provide most of the capital has also significantly decreased in recent years (Naudé & Krugell, 2007), albeit those from China are reported to be increasing at a suspicious rate. Therefore, making an appraisal of the importance of IIAs considering the high costs often invested in negotiations should provide a specific incremental contribution to policymaking from an African perspective.

B. The debate on channels through which IIAs affect FDI continues.

The debate on whether investment agreements improve the business environment by substituting domestic policies with those set in treaties or act as a complement to existing institutions is still unsettled. While empirical evidence suggests that multinational enterprises receive a great deal of property rights and protection in developing countries, the causality between IIAs, inflows of FDI and how it translates into an FDI destination is not yet clear. Furthermore, African countries are striving to diversify investments from the natural resource sectors and the battle for dominance by Western powers in terms of market share continues to proliferate. Similarly, the coming to reality of Brexit and consequent announcement by the UK to become the largest G7 investor in Africa by 2022; and escalating trade tensions between the USA and China that are almost synchronous can only result

in a promising future of FDI into Africa. Therefore, understanding how investment agreements shape the domestic business environments should provide a more informed contribution on how to design future policies. Finally, FDI into Africa has in the past five years only been resilient in countries that are more diversified, and therefore, future investments may comprise mostly *footloose* companies in which every nation has an equal opportunity to benefit, depending on their community of friends. There is a need to ensure that there is a sustainable flow of capital.

C. Literature is fraught with theoretical and methodological disputes

Literature is still full of theoretical disputes and methodological pitfalls. Theories of FDI are still underdeveloped and mostly difficult to measure quantitatively. This has resulted in a great deal of debate as to which is a better determinant of FDI. While this study is based on Dunning's (1980) locational advantages of FDI, most of the theories are still descriptive and conflicting. Furthermore, a striking controversy in empirical results has often emanated from methodology. Issues relating to endogeneity and heteroscedasticity have been the primary reasons why researchers obtain conflicting results, which is far from being resolved. Therefore, employing a more statistically robust technique in the analysis can provide new and insightful evidence on the relationship between these international institutions and FDI.

D. Dyadic or monadic analysis?

Most empirical studies on IIAs are based on dyadic analysis of FDI flows between trading partners, especially those involving African nations. A dyad in international trade represents a type of social network in which countries are linked. In these studies, FDI is assumed to move from capital-abundant countries into those that are deficient. Dyadic analysis are known to violate the assumption of independence, have limited dyads for sufficient power, often have many missing data and cannot disentangle country-specific effects. Therefore, a dyadic study may not effectively capture the signalling effects of BITs on aggregate inflow of FDI thereby leading to inappropriate policies.

E. Heterogeneity between developing countries

Developing countries vary in their levels of development. For instance, China and Singapore are often subsumed under developing countries in most studies but these are relatively advanced or transition economies that can consequently result in wrong estimates on the effects of BITs due to individual country heterogeneity.

F. Do intra-African BITs matter?

Finally, no known study has explicitly covered the effects of BITs signed between developing countries. This is a confounding variable that can render the results useless if not accounted for. For instance, FDI inflow may increase because the country has signed a similar treaty with a developing country where goods can be exported after production or because the country is in an economic block that the investors can benefit from a larger market. These need to be taken into consideration in order to establish the true effects of BITs. Similarly and as part of efforts to encourage trade between African countries, there is a need to examine the effectiveness of treaties between African countries in enhancing the flow of bilateral FDI. There is a great deal of opportunities from encouraging investments between African countries as this is also part of the process of promoting the movement of people and increasing productivity.

3.8 Chapter conclusion

This chapter has reviewed the literature on the empirical determinants of FDI. It has examined the impact of bilateral investments, trade and investment agreements, the contribution of the investment climate and the traditional economic and political institutional variables that determine FDI inflows into countries and regions. It built upon the previous chapter to identify what can be considered as some pertinent research questions and gaps within the literature, to which this study intends to make a contribution. Together with the literature review carried out in Chapter 2, this chapter has situated this study within the context of the literature on the behaviour of MNCs and empirical determinants of FDI. Having examined the impact of BITs, PTAs and TIPS on FDI inflows, it seems reasonable to capture all of these under the generic term of international investment agreements (IIAs) and to test for their impact individually and collectively upon the emerging patterns of FDI inflows into selected African countries as part of the empirical contribution of this study to the subject under investigation. The impact of these IIAs on FDI inflows into selected African countries would be treated in more detail in Chapters 5 and the results discussed in Chapter 6. However, in the chapter that follows, there shall be an examination of the recent performance of FDI and other economic and socio-political variables on the African continent. The objective would be to ascertain whether there is indeed an emerging pattern of FDI behaviour on the African continent that is perhaps seeing a shift away from the traditional natural resources enclave sectors. The identification of an emerging pattern has been a core objective of this study, together with the determination to ascertain whether the above-mentioned IIAs (specifically, BITs, PTAs and TIPS), have had any role to play in Africa's recent FDI performance.

This objective will be pursued alongside the determination of traditional determinants of FDI inflows, drawn from the investment climate literature, as well as the economic and political institutional determinants of FDI to ascertain whether their impact has remained significant in the case of Africa, as witnessed in other parts of the world. The chapter would also identify major investing countries in Africa over the years that would be used in subsequent chapters to analyse the importance of BITs with such countries. In this light, the next chapter would present an overview of the recent patterns of FDI flows, reviews the performance of Greenfield investment and main sectors of investments on the continent.

4. Chapter 4 Overview of Africa's economic performance

4.1 Introduction

In the preceding chapters, relevant theoretical and empirical literature has been examined. It was observed that, although there have been some studies on the impact of IIAs on FDI inflows globally, there was still paucity of specific research on BITs and other multilateral agreements focusing on the African continent. As Africa gears up for the effective and full implementation of the African Continental Free Trade Area (AfCFTA), a deeper understanding of the importance of BITs and other multilateral treaties is necessary for its success. Although there is still skepticism about the prospects of such a multilateral initiative, most policymakers believe that creating a single continental market for goods and services and other liberalisations will translate into increased growth. An understanding of the performance of existing multilateral agreements with African countries is therefore necessary to plan for the future.

This chapter presents the background to the study. It is necessary to review the performance of fundamental economic and non-economic variables in the study area over time in order to establish how they have influenced the trajectory of FDI. Section 4.2 presents an overview of the economic performance of Africa, focusing on key trade, investment and macroeconomic variables. This also covers its economic growth after the colonial era, national resource endowments and the dynamics of some of its socio-political indicators. The aim is to present the potentials in Africa while highlighting challenges it currently faces in attracting foreign investments relative to other regions of the world. Section 4.3 discusses global patterns of FDI and its performance in Africa. It further presents a sectoral decomposition and volumes of FDI inflow by motives. The changing patterns of FDI, major foreign investors and top recipients of Greenfield investments are discussed in section 4.4. Trends of IIAs are reviewed in section 4.5. These include BITs and treaties with investment provisions (TIPS) and their trajectories in Africa. Section 4.6 reviews Africa's political environment and section 4.7 concludes the chapter. Therefore, the chapter lays the foundation to the method and results chapter by making a descriptive analysis of fundamental variables that would be subjected to rigorous econometric analysis.

4.2 Africa's socio-economic performance

Interest on the determinants of long-run growth has been at the centre of economic research and policy-making. This has resulted in the extensive development of rigorous economic theories and models that have attempted to explain differences in economic performance across countries. Among

these theories are endogenous and exogenous⁹ approaches to theoretical modelling. There exists a bounty of evidence that suggest that the implementation of their postulates in Western and Asian countries has been widely successful, particularly after the Second World War.

In spite of their projections and targeted reforms in Africa, its growth has mostly remained dismal, and seemingly the worst economic tragedy in the world (Savvides, 1995; Artadi & Sala-i-Martin, 2003). The situation in Sub-Saharan Africa, flanked by conflict-affected nations with flimsy institutions is thought-provoking. In this region, poverty, corruption and embezzlement have been at their highest global levels, further plunging most economies into a gloomy economic prognosis, especially in landlocked and resource-scarce nations. This presents a puzzle as many expected that self-rule acquired at independence should have increased Africa's economic growth.

The post-1960 period corresponds with the era of political sovereignty in most of Africa, Latin America, the Caribbean and Asia. While the rest of these regions have experienced significant growth and most Asian nations transitioned into newly industrialising countries, growth indicators such as GDP per capita and human development indices have largely been deteriorating in Africa, sometimes even falling below levels attained by most developing countries in 1960 (Ndulu, O'Connell, Bates, Collier, & Soludo, 2007).

Despite this negative perception of Africa, it would seem that most economists have focused on asking the wrong question, which has been why economic growth continue to fail in Africa. This got serious in 2000 when the front page of *The Economist* portrayed Africa as a hopeless continent (Economist, 2000). Based on this somewhat misleading question, one may wish to find out whether economic growth has actually failed in Africa as has been described by previous researchers, or better still, how African economies are growing. Several interventions from Jerven (2015) explain quite the opposite. Accordingly, economic growth across Africa, like in many countries, has been a recurring process as shown in Figure 4.1.

⁹ Endogenous growth theorists perceive economic growth as primarily resulting from within and not external factors. They, therefore recommend that countries desiring growth should invest in human capital, innovation and R&D. This is contrary to the neoclassical view in exogenous models that long-run economic growth is explained in terms of external factors such as capital accumulation, population growth and technical progress (Romer P. M., 1994; Acemoglu D. , 2009).

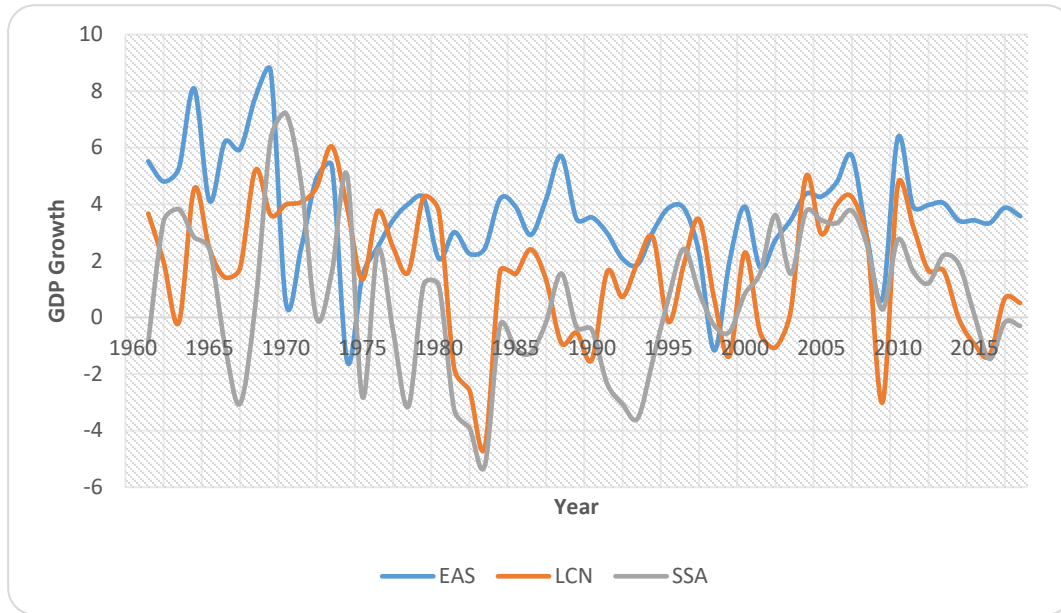


Figure 4.1 Economic growth in developing regions

Eastern Asia (EAS); Latin America & the Caribbean (LCN); Sub Saharan Africa (SSA)

Source: Author's compilation (2020), data from WDI

Figure 4.1 presents the evolution of economic growth in Sub-Saharan Africa relative to those of Asia, Latin America and the Caribbean since 1960. The period following independence was marked by substantial economic growth in most SSA countries reaching up to 3.8 per cent. However, most analysis of the growth experiences in Africa have often missed this period. Most datasets show that the entire Africa recorded positive until the mid-1970s before an experiencing a major economic downturn. However, this was never sustainable and by 1967, the region experienced its first negative growth which reached -3.05 per cent.

However, the discovery of major oil fields and other mineral resources in most countries in the early 1970s increased economic growth by more than 6 per cent, which set Africa on the right path to emergence. The region would later experience a major economic downturn in the early 1980s, which reached an all-time low value of negative 5.23 per cent, despite the introduction of structural adjustments and stabilisation programmes. However, economic growth has largely improved in the last 10 years, reaching 2.5 per cent in 2018, which was down from 2.6 per cent in 2018 (The World Bank, 2019). Latin America and the Caribbean and East Asian countries have, nonetheless performed better. A major question that remains to be answered is what explains this recurring growth across African countries? Collier (2007) explains that most African economies were small and trapped in

poverty, conflicts, resources, bad neighbours and bad governance, which is consistent with the explanations offered by Acemoglu and Robinson (2010, 2012).

Within the same period, average per capita income has only grown by \$544 in absolute terms from 1960 to 2018 in SSA, compared to \$7562 in China and \$54744 in Singapore (World Development Indicators, 2019). Furthermore, the poorest African countries such as Niger, Central African Republic and Chad have all experienced a decrease in GDP per capita by more than \$200 between 1960 and 2018. This was further worsened by a highly skewed distribution of income, persistent malnutrition among populations in some countries amidst food shortages and food insecurity. However, North African countries generally performed better than all other regions on the continent. According to the International Monetary Fund (2018), the main challenge in SSA was to increase living standards by implementing policies towards the realisation of sustainable development goals (SDGs).

In 2018, average gross domestic product (GDP) growth in Africa was estimated at 3.5 per cent, which was up by 1.4 percentage points from that in 2016. East Africa, with an annual growth rate of 5.7 per cent was the fastest growing region on the continent, while North Africa accounted for upto 37 per cent of overall growth on the continent. Factors that contributed to this growth included consumption, investment, exports and a rebound of commodity prices. According to the 2018 annual report from the African Development Bank, five countries went through a recession in 2018, while 17 realised a growth rate above 5 per cent and 21 between 3 and 5 per cent (African Development Bank, 2018).

Although countries such as Equatorial Guinea, Seychelles, Mauritius, Botswana and Gabon have realised substantial growth in their GDP per capita, some, including Equatorial Guinea, with a GDP per capita of about \$10174 in 2018, are highly vulnerable to external shocks due to their heavy reliance on oil revenue (United Nations Conference on Trade and Development, 2017). Africa's largest economies such as Nigeria, South Africa and Egypt continue to suffer from the effects of poor macroeconomic policies, high external debts, persistent unemployment and state fragility (Chuku & Onye, 2019).

Unsustainable debt management has, perhaps been one of Africa's greatest challenges in realising rapid growth. According to data presented by Ndoricimpa, (2017), countries such as the Congo, Gambia, Mauritania and Sierra Leone have had average debt-to-GDP ratios of more than 100%. The data further showed that most African countries have average debt-to-GDP ratios of more than 50%, which is high compared to the debt overhang threshold of 35 to 40% (Pattillo, Poirson, & Ricci, 2002). In SSA, the total stock of external debt rose from \$176.36 to 235.94 billion between 1990 and 2010, representing an increase from 58.2 per cent of GDP to 72.0 per cent. Although a report by UNCTAD (2017) was optimistic about debt management in Africa, the Figure rapidly increased to about

\$367.51 billion in 2013, and became a major concern in many countries (Senadza, Fiagbe, & Quartey, 2017).

As a result of these debt crises, most African countries have often relied on foreign aid to finance economic growth. In 2012, for instance, SSA received more than 25% of global aid flows. However, the idea that official development assistance enhances economic growth, especially in Africa has remained highly controversial. There is unequivocal evidence that US foreign aid significantly contributed in rebuilding Europe after World War II through the Marshal Plan. A common belief now is that foreign aid enhances growth conditional on certain factors. This has stimulated research dedicated to finding circumstances under which foreign aid becomes effective. This was motivated by the growing fatigue by donors after the global financial crisis and unsustainable debt management (Tait, Siddique, & Chatterjee, 2015).

As far as FDI and commercial bank loans are concerned, they have increased from 29% in the 1960s to approximately 57% in recent years (Mahembe & Odhiambo, 2019). Although Africa does not attract sufficient levels of investments to upset declining growth, statistics show that returns on FDI are higher in Africa than in most regions, amounting upto 11.4% between 2006 and 2011 (Odusola, 2018). There are, consequently, high expectations that FDI could eventually substitute foreign aid in financing economic growth, in a similar way that remittances have grown in importance in recent years.

According to the the African Economic Outlook (2019), however, recent statistics show that the state of the continent has since been good. Estimates suggest that economic performance increased by 3.5 per cent in 2018, representing a 1.4 percentage point increase since 2016 and with future projections that place the continent at a higher performance level than all other emerging and developing economies. Similarly, fundamental economic indicators increased significantly in 2018 and 40 African economies were projected to realise growth rates of at least 5 percentage points by 2020, with more optimism in countries with stable exchange rates and little inflationary pressures.

However, these forecasts are threatened by persistent structural challenges such as fiscal and BoP deficits and sustainable debt management, which have largely resulted in macroeconomic instability, high unemployment and high levels of emigration and even the outbreak of coronavirus (African Economic Outlook, 2019). While robust industrialisation can pave the way to increased growth and stability in the region, most African countries are trapped in informality, which further compounds the situation. Nevertheless, the recent move towards a more integrated African market presents opportunities for the future of economic growth, despite being a leap in the dark.

Africa's economic experience in the past two years of uninterrupted growth and important peace and security gains is replacing the sense of "Afro-pessimism" with an "Afro-euphoric" outlook despite the

impending turbulence in some areas (Frankema & Waijenburg, 2018). Although the economic boom has not been sufficient to reduce absolute poverty levels due to the rapid increase in the population, there are high expectations that replicating the Chinese experience could enable it to eradicate poverty by 2030 as enshrined in the UN SDGs. This will, however, require robust macroeconomic policies that can structurally transform labour productivity in every sector, investments in social capital and improvements in the business environment.

Development is a process of social change. It involves the evolution of educational systems and how they drive productivity, energy availability, access to health care and happiness. In any debate on economic development and its determinants, growth in GDP per capita, which is the most common measure, is an important but not sufficient means of improving human well-being. There is broader agreement that investment (both domestic and foreign) enables higher economic growth, which in turn, enhances the realisation of social and other development objectives (Kolstad & Tøndel, 2002). A number of studies also agree on the existence of reverse causality in which improvements in social development attract investments, which consequently lead to economic growth. Therefore, the social development of a country can have important signalling effects on foreign investors. The United Nations Development Programme, as the lead agency, remains at the forefront of implementing and achieving the SDGs through an integrated approach that focuses on systems in order to tackle the root causes (UNDP, 2020).

In Africa, the continent enjoyed a 4.6% growth from 2000 to 2016 compared to 2.8% in Latin America and the Caribbean. Many countries have also targeted investments in public infrastructure, education and health. However, employment remains a major obstacle that cuts across Africa, especially underemployment in most countries. In Southern Africa, unemployment rates range from 15 to 35%, with persistent levels of income inequality. Although Southern Africa performs relatively better than other regions, gender disparities in employment are still wide, and a majority of rural populations have limited access to basic services such as electricity, water and sanitation (AUC/OECD, 2018). Lesotho has an unemployment rate of more than 27% and is closely followed by South Africa and Namibia. Central African countries have also made remarkable progress with growth and employment, albeit with high volatility, income inequality and alarming rates of underemployment. North, East and West Africa also recorded improvements in social development indicators.

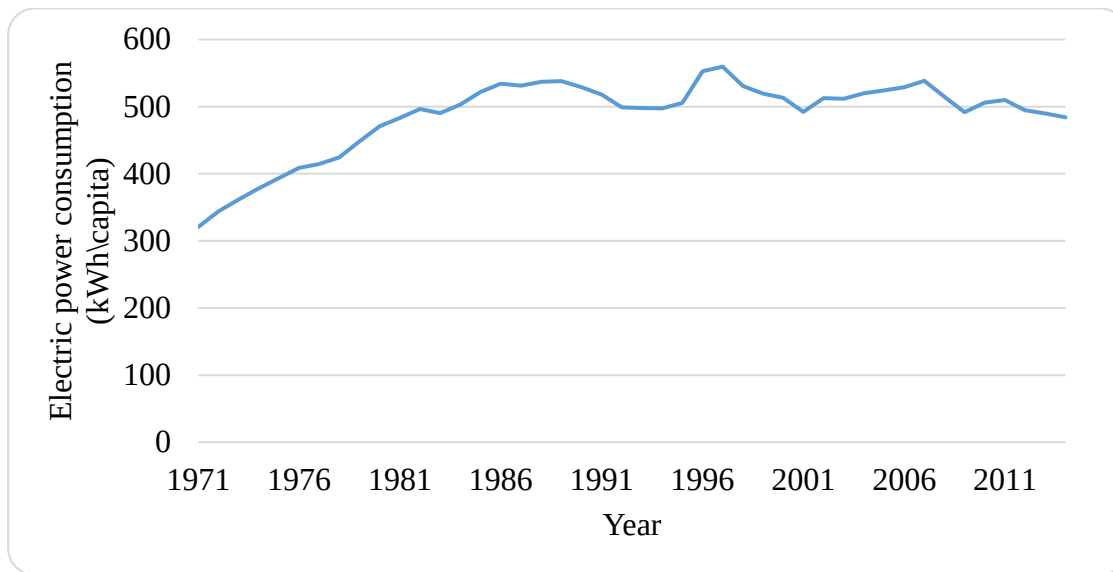


Figure 4.2 Electricity consumption in Sub-Saharan Africa

Source: Author's compilation (2020)

Figure 4. 2 shows the trend of energy consumption in Sub-Saharan Africa. It can be seen that it is still relatively low despite Africa's enormous potentials. SSA has the lowest electrification rate in the world with more than 600 million people (42%) lacking access to electricity in 2016. Total installed capacity in the region was 96 gigawatts in 2014 for a population of 800 million people, compared to 106GW for a population of 45 million in Spain. Although South Africa has recently had problems with electrical energy due to corruption allegations, it accounts for almost one-half of the region's generation capacity, and the remaining 48 is shared amongst the other nations with only 14 countries having power systems larger than 1GW (Eberhard, Gratwick, Morella, & Antmann, 2017).

Nigeria, with four times the population of South Africa has only about one-quarter of its installed generation capacity. Africa's average annual consumption of electricity in KWh per capita was 484.04 in 2014, which is 4% of consumption in the United States. All Northern African countries have the best electrification rates, followed by South Africa and Ghana. However, Burundi, Sierra Leone and Liberia are the least electrified countries in SSA with just 1.2% of their rural populations having access to electrical energy (Wolde-Rufael, 2006; Wee, 2017). According to the International Energy Agency, China accounted for more than 30% of new capacity additions in SSA from 2010 to 2015 (International Energy Agency, 2016). Energy consumption is closely associated with manufacturing value added, and countries with sufficient electrical energy are likely to receive more investments. Therefore, the low investments in Africa relative to other regions of the world could be closely correlated with difficulties in accessing energy. This is further justified by the fact that the major FDI recipients on the continents are those with heavy energy consumption.

In 2013, the Electrify Africa Act designed a strategic approach to support affordable and reliable electricity in SSA. Its goal was to provide access to more than 50 million people by installing at least 20000MW of generation capacity by 2020. This required action from a number of U.S. institutions, including the U.S. Agency for International Development, the Overseas Private Investment Corporation, and the Trade and Development Agency, and also encouraged the World Bank and the African Development Bank (AfDB) to increase electrification investments in SSA.

Regarding health in Africa, Murray (2002) cites three main goals for any health system as stipulated by the World Health Organisation; a) to improve health as a primary goal, b) to provide financial protection for people through fair financial contribution, and c) respond to people's expectations regarding non-health issues such as respect for people's dignity, autonomy and confidentiality of information. These three intrinsic goals form the bases for assessing health systems' performance and should be closely monitored in every country. This is because people's health essentially depends on the performance of those systems that serve them. However, healthcare systems in Africa are faced with the challenge of resource scarcity, as they are often insufficient to respond to all health problems and target groups simultaneously.

According to the WHO, Africa confronts the world's most public health crisis that can only be overcome with sufficient international support. The burden of communicable diseases such as HIV/AIDs, hepatitis, tuberculosis, malaria and outbreaks remain high and mostly affect the vulnerable, poorest and disadvantaged communities. In 2012, for instance, 71% of people living with HIV/AIDS(PLWHA) were in Africa. However, most African countries have adopted the 90-90-90 targets and are now on the right trajectory to realisation. Consequently, nearly 70% of PLWHA knew their status in 2016, 53% were receiving antiretroviral treatment and viral suppression rates were at 44%. Although prevalence varies within genders, countries and regions, Southern Africa is the most affected region with the epidemic. Malaria, however, remains the highest killer disease and Africa was home to 92% of all cases and 93% (435000) of all deaths in 2018 (WHO, 2018). Life expectancy, malnutrition and sanitation have slightly improved on the continent due to increased sensitisation programmes, although it is still below international standards.

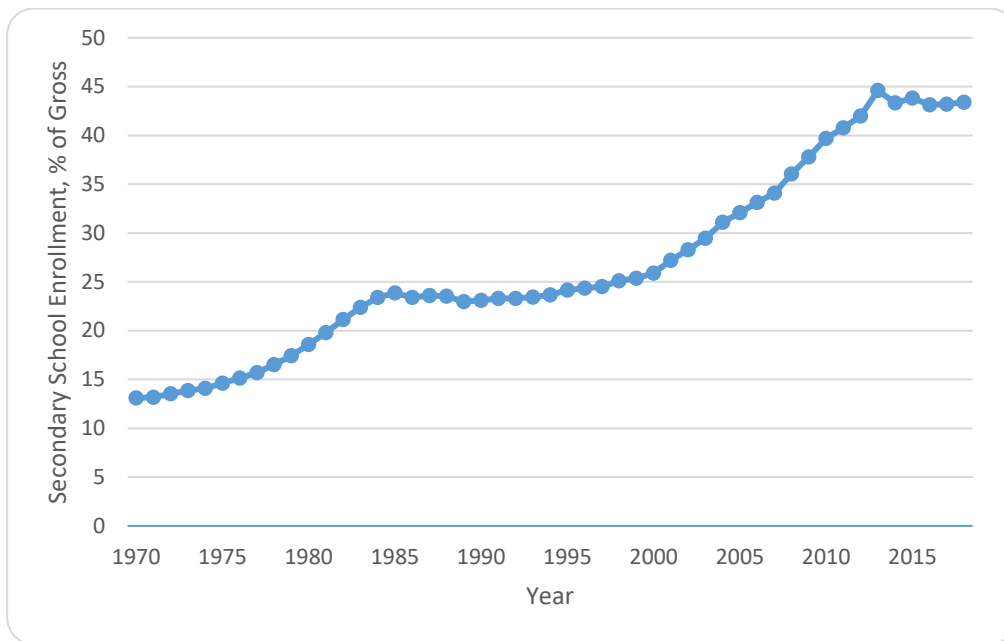


Figure 4.3 Secondary school enrollment in SSA

Source: Author's compilation (2020)

Similar to health, Africa is in the midst of an education crisis especially that of the girl child. Figure 4.3 shows the trend of secondary school enrolment as a percentage of gross enrolment. Since 2010, significant improvements have been realised and secondary school enrolments now reached 45 per cent in 2012. 75% of girls are reported to start primary school in SSA, yet, only 8% complete secondary schools. In 2018, primary, secondary and tertiary school enrolments in SSA were 97.8%, 43.4% and 9.4% (WDI, 2018). Seychelles, Equatorial Guinea and South Africa have achieved 95% literacy rates for their population above 15 years; while Niger, Guinea and South Sudan are the least with less than 30% literacy rates.

Education and health are fundamental aspects of human capital. Researchers have found that where malaria prospers most, human societies have prospered least (Sachs & Malaney, 2002). Diseases undermine social and economic development through their erosion of fundamental determinants of economic growth such as social capital, domestic savings, investment, and worker productivity (Bonnell *et al.*, 2002). This is because they prevent a greater share of the population from participating in economic growth through its effects on productivity. Human capital increases a labourer's skills and quality of life, and economic growth also allows more investment in human capital (Eggoh, Houeninvo, & Sossou, 2015). Therefore, a healthy and educated environment can be expected to be a successful business location for foreign enterprises.

With regard to Africa's recent trade performance, there is now renewed interest in trade due to the recent increasing waves of globalisation and digitalisation that are further characterised by trade integration and liberalisations. According to the World Trade Report (2019), services have become the most dynamic component of international trade, accounting for almost three-quarters of GDP in the developed countries and an increasing share of GDP in developing economies. For example, trade in services amounted to US \$13.3 trillion in 2017 and had been growing by an average of 5.4 per cent since 2005. Furthermore, global trade contributed 57.92% to GDP and 50.97% in SSA compared to just 23% and 44% in 1960 respectively (Were, 2015). On average, total merchandise trade has grown by more than 7% per year from 1980 to 2011 and expanded by 7% in 2018 due to a significant recovery in oil-exporting countries (African Trade Report 2019, 2019).

The overwhelming growth of trade in services relative to merchandise trade is being enhanced by advances in technology, telecommunication, transport and improved trade openness that have created further opportunities around value chains in production and distribution systems (Were, 2015). However, intra-African trade is not yet fully optimised, albeit there are speculations that it could be under-reported by up to 11%, according to the World Economic Forum. The burgeoning of trade, particularly in Africa, has partly been as a result of the proliferation of regional and international trade agreements.

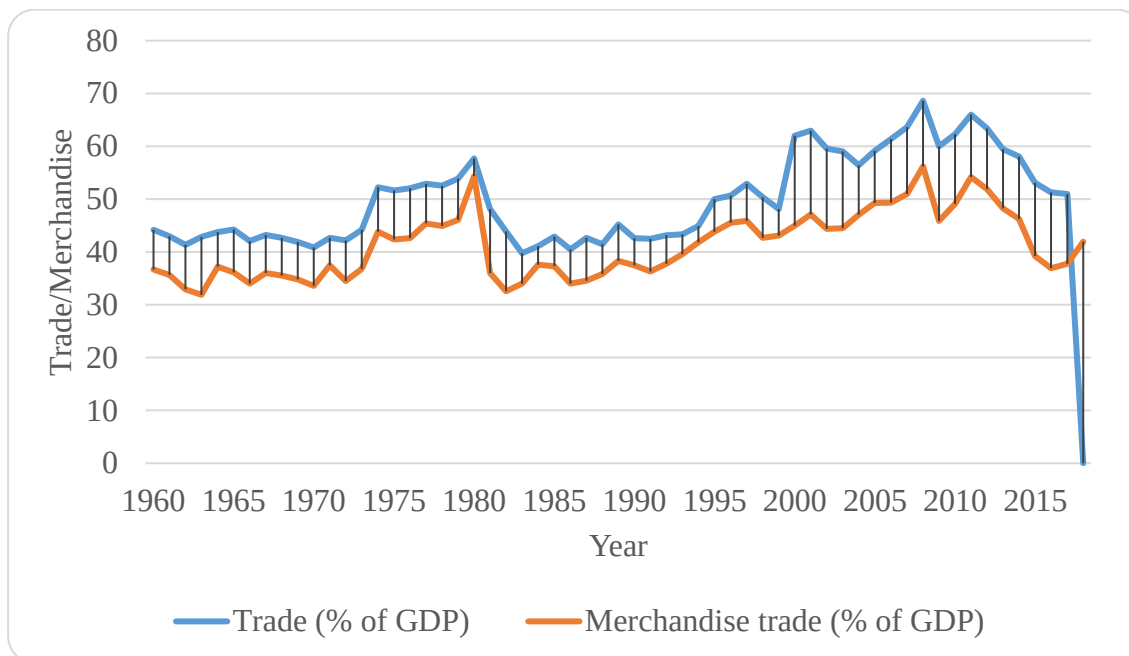


Figure 4.4 Trade in Africa

Source: Author's compilation (2020)

Figure 4.4 shows the growth of total trade and merchandise trade as percentages of GDP from 1960 to 2015 in SSA. It depicts an upward linear trend until after the 2008 global financial crisis. In 2008, trade contributed 68.6 per cent to GDP compared to 44.1 per cent in 1960 when African countries were practising restrictive trade as a way to protect their fragile economies. Therefore, the greatest achievement over the years has been the move towards free trade across all countries within the WTO system, which has had a profound impact on trade in Africa.

Although trade has contributed significantly to economic growth in some African countries, the level of intra-African trade is still very low and only accounts for about 16 per cent (US\$159.1 billion in 2017) of total trade compared to significant intra-regional trade in Asia that amounts to 59 per cent of aggregate trade values. The growing share of intra-African trade was attributed to increase in the prices of commodities traded within the region and the resilience of manufactured goods traded. South Africa remains the leading African country that trades with the rest of the continent, and its trade with Africa was estimated at US\$36.5 billion in 2017 (World Development Indicators, 2019). Other top contributors to trade within Africa include the Democratic Republic of Congo, Nigeria, Namibia, Zambia and Egypt.

In the past 60 years, African integration has occurred in several phases which started with the desire to establish an African Union through which many leaders were reluctant due to issues related to national sovereignty. However, many African countries started constituting themselves into economic blocks and other monetary unions. Integrating Africa is necessary because it has 16 landlocked countries and 33 of the 37 LDCs are on the continent. According to the African Economic Outlook (2019), 76 per cent of African countries had a population of less than 30 million in 2017, and almost half of the countries in Africa have a GDP of less than \$10 billion. Therefore, a more integrated Africa will create opportunities for smaller economies with highly fragmented markets. The move to sign the African Continental Free Trade Area in 2018 was, therefore, a landmark achievement as it is expected to lay the foundation for Africa to be competitive in global trade and also take advantage of value additions in trade.

4.3 Africa and the global patterns of FDI

Foreign direct investment has long been considered one of the most stable source of capital flowing into developing countries, particularly known for driving technological progress and productivity of domestic economies. FDI has been highly sought after by African countries as a means of complementing their domestic resources with resources coming from outside of their economies. Their quest has led a number of them to undertake major changes in their investment framework with the aim of improving their image and attracting more FDI (UNCTAD, 1999). An important

preoccupation in the late 1990s was to enhance a more diversified flow of FDI into the manufacturing and tertiary sectors of production. A review of this trajectory at the global level and specifically in Africa along other macroeconomic fundamentals can paint a good picture of why Africa is still lagging in terms of FDI relative to other regions.

Multinational enterprises have been active in the continent since the 1960s. In 1989, the Berlin wall came down, and shortly afterwards, members of the OECD, the United States, Canada etc., went into a recession. This was followed by the end of the cold war, which was characterised by the struggle for more opened systems, competition and freedom of choices against centrally-planned economies. The success of capitalist-oriented ideas during the cold war led to an interest in investing in foreign countries. According to Sargent (2013), the 1970 represent a transitional decade that saw the ascendance of globalisation and financial deregulations. Accordingly, liberal international political economy experienced dramatic changes within this period, while the communists suffered diminished growths before finally collapsing in the the late 1980s. As a result, global capital mobility experienced an exponential growth, both for market-seeking, resource-seeking or to build strategic assets. In Africa, FDI increased from \$9billions to \$18.5 billions from 2000 to 2001 (UNCTAD , 2002). However, the rate of increase in this FDI was not commensurate with the expectations. In most cases, only a few countries such as Egypt, Nigeria, South Africa, Algeria and Angola benefited from such investments.

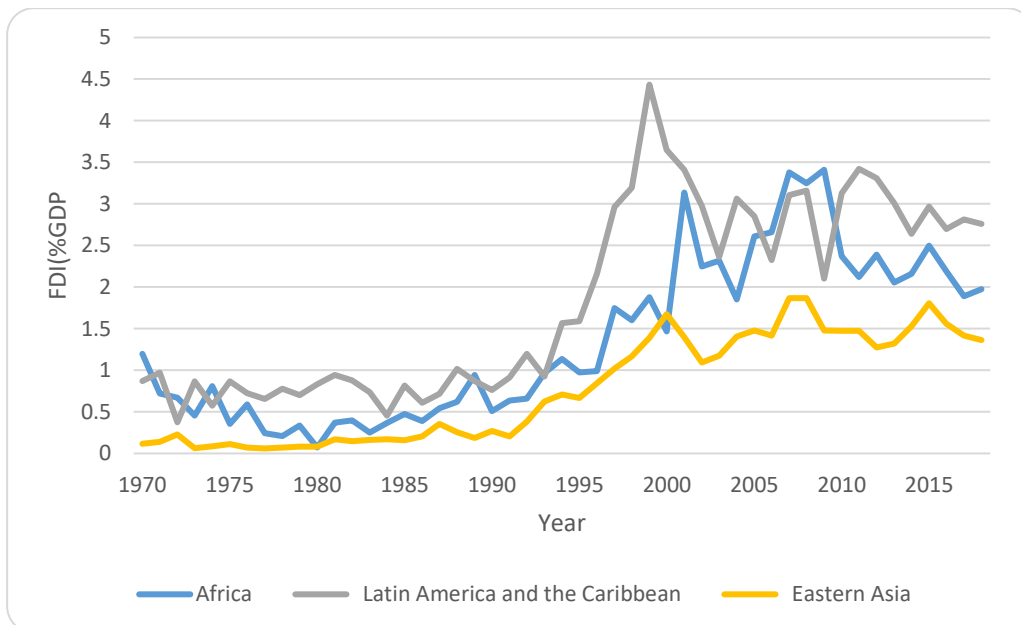


Figure 4.5 FDI into Africa (% of GDP)

Figure 4.5 presents the aggregate inflow of FDI as a percentage of GDP into Africa, Sub-Saharan Africa (SSA), Eastern Asia and Latin America and the Caribbean. Accordingly, FDI contributed less

than 1% to GDP between 1970 and 1993. This was due in part to protective mechanisms imposed by African countries within that period. However, post-1993 corresponds with a period of structural adjustment and stabilisation programmes and a quantum leap in the number of investment agreements that led to trade liberalisation programmes across Africa.

This also resulted in a significant inflow of foreign investment, sometimes above 3% until the global financial crisis in 2008; which kick-started a period of reduction of FDI down to about 1.8 per cent in 2017. The contribution of FDI to GDP in Latin America and the Carribeans is greater than in Africa. Similarly, although Asia receives the second largest volumes of global FDI after the USA, it has generally contributed less to its GDP relative to African countries since 1970. This shows the importance of foreign capital on the economic development of the continent since most investment projects always require heavy capital and technology that are not readily available to most Africans.

As can be observed from Figure 4.5, the inflow of FDI as a percentage of GDP has been consistently greater in Latin America and the Carribean than in Africa, though East Asia's own share of FDI as a percentage of GDP has been lower. Overall, in Africa, FDI inflows have increased significantly in the last two decades in part due to an increasing perception of business optimism in Africa. Despite Africa's US\$ 44 billion decrease in FDI in 2010, its share in global flows reached 4.4 per cent in 2014. Countries with significant deposits of natural resources continued to attract more investments, despite considerable improvements in diversifications across the continent.

Table 4.1 Regional FDI into Africa

Year	Statistic	CEMAC	EAC	ECOWAS	SADC	North Africa
1970-1980	Mean	112.14	39.57	523.21	258.04	184.02
	Maximum	235.3	106.3	856.51	871.43	707.97
	Minimum	22.2	3	317.54	-107.95	-397.98
1981-1990	Mean	207.2	55.29	696.83	347.6	894.89
	Maximum	403.11	108.57	2726.17	595.54	1649.83
	Minimum	-102.47	18.59	-461.48	54.25	152.37
1991-2000	Mean	126.12	226.22	2121.64	2158.64	2013.89
	Maximum	650.82	651.84	2784.56	5420.18	3347.95
	Minimum	-85.42	25.28	1364.9	54.13	914.08
2001-2010	Mean	2078.99	1426.26	6285.59	9050.94	12083.61
	Maximum	4658.67	3404.48	14767.32	19075.01	23096.56
	Minimum	552.64	593.5	1998.05	3235.95	3250.13
2011-2018	Mean	4495.65	3751.72	12550.25	13808.62	13023.33
	Maximum	7364.03	4801.73	18337.56	23339.76	15745.92
	Minimum	1870.55	2496.33	9494.17	2380.97	7548.07
Total	Mean	1340.93	1045.69	4269.9	4947.55	5489.27
	Maximum	7364.03	4801.73	18337.56	23339.76	23096.56
	Minimum	-102.47	3	-461.48	-107.95	-397.98

Source: Computed by author (2019), data from WDI, in millions (\$US)

Table 4.1 presents FDI stocks into regional economic communities in Africa classified into clusters of ten year intervals from 1970 to 2018. It seems evident from the table that Northern African countries received the largest share of FDI in Africa over the period under observation, while the East African community received the least.

Table 4.2 Classification of FDI recipients in Africa-FDI inflow (2000-2018)

Least 10 recipients		Volume(\$M)	Top 10 recipients		Volume(\$M)
1	Angola	-119.37	10	Congo, Rep.	1254.71
2	Burundi	4.99698	9	Libya	1394.69
3	Comoros	5.351	8	Algeria	1448.21
4	Guinea-Bissau	14.3541	7	Sudan	1463.34
5	Sao Tome and Principe	23.9675	6	Ghana	1833.13
6	Central African Republic	26.7335	5	Mozambique	2022.33
7	Gambia, The	37.7428	4	Morocco	2301.78
8	Eritrea	39.2486	3	South Africa	4147
9	Eswatini	48.5188	2	Nigeria	4591.77
10	Lesotho	54.296	1	Egypt, Arab Rep.	5159.45

Source: author (2020)

Similarly, Table 4.2 presents the classification of top FDI recipients on the continent from 2000-2018. It shows that within this period, Angola, Burundi and Comoros received the least inflow of FDI, respectively, while Egypt, Nigeria and South Africa were the largest recipients of FDI within the period under consideration.

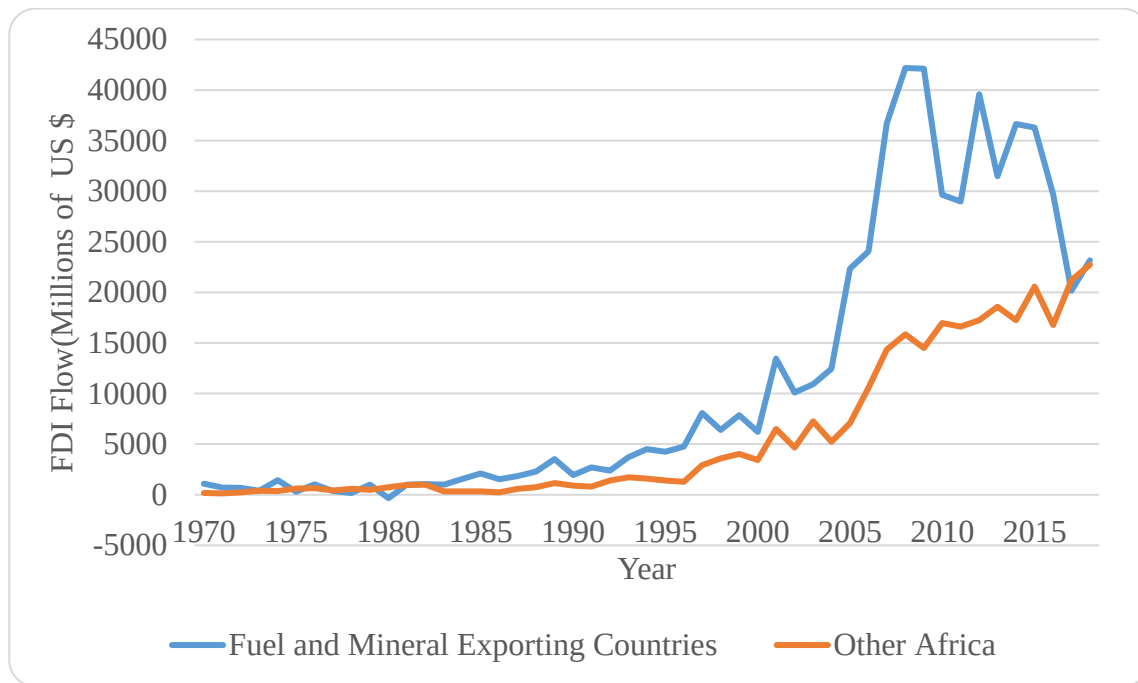


Figure 4.6 FDI inflows to African fuel- and mineral-exporting countries compared to other African countries, 1970 to 2018

Source: UNCTAD FDI/TNC database.

Note: Fuel- and mineral-exporting countries include: Algeria, Angola, Botswana, Cameroon, Central African Republic, Egypt, Ghana, Guinea, Kenya, Libya, Mauritania, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, South Africa, Sudan, Togo, Zambia, Zimbabwe (United Nations Conference on Trade and Development, 2005).

In the 1990s, FDI inflows to fuel and mineral exporting countries were more volatile and this contributed to high volatilities in the rest of the region until 2003, as shown in Figure 4.6. FDI to resource-and-mineral exporting countries increased to more than \$42 million in 2008 before declining to less than \$22 million in 2017. The declining levels of FDI into resource rich nations could be a reflection of a burgeoning interest of investments into the manufacturing and tertiary sectors by investors, including the increase of the services component of manufacturing and trade. This is evident from a surge of FDI into other African countries from \$822000 in 1991 to more than \$22 million in 2018.

These changing patterns of FDI correspond and seem to correlate with the growing number of IIAs signed by most African countries during this period. Therefore, identifying the constructive role of FDI in African development and how it aligns with these agreements can be informative. This is because low levels of FDI in Africa were strongly attributed to the abuse of trade policies or less commitment

to investment agreements for welfare benefits, especially fluctuating tax regimes (United Nations Conference on Trade and Development, 2005).

4.4 Emerging patterns of investments

Though the bulk of FDI is still flowing into fuel-and-mineral exporting countries in Africa, there seems to be an emerging pattern that shows that besides resource-seeking FDI, foreign investors are now allocating investments to other (non-resources rich) African countries, based on a set of other criteria and considerations. Generally, African countries are also striving to diversify their economies by making economic reforms that are attracting more Greenfield FDI.

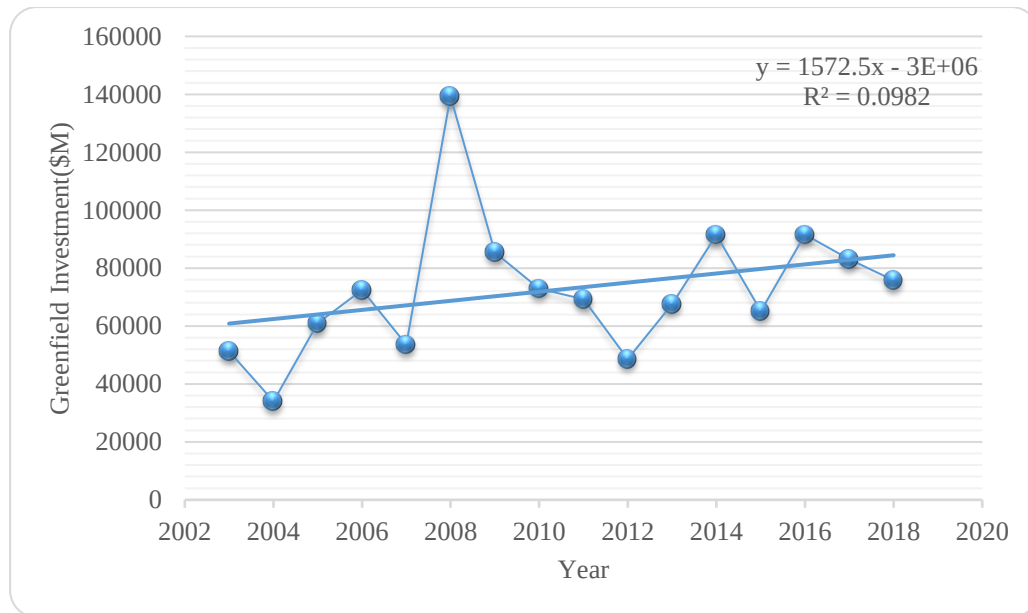


Figure 4.7 Greenfield Investments in Africa (2003-2018)

Data source: FDI Markets

As shown in Figure 4.7, Greenfield investments increased by more than 47 per cent between 2003 and 2018 and the line of best fit suggests that FDI will grow by 9 per cent every year. Ethiopia, with limited natural resource endowments is gradually emerging as one of the largest recipients of FDI. Although resource-rich countries are still the highest recipients of FDI, sectoral analysis shows that more investments now flow into the manufacturing and tertiary sectors.

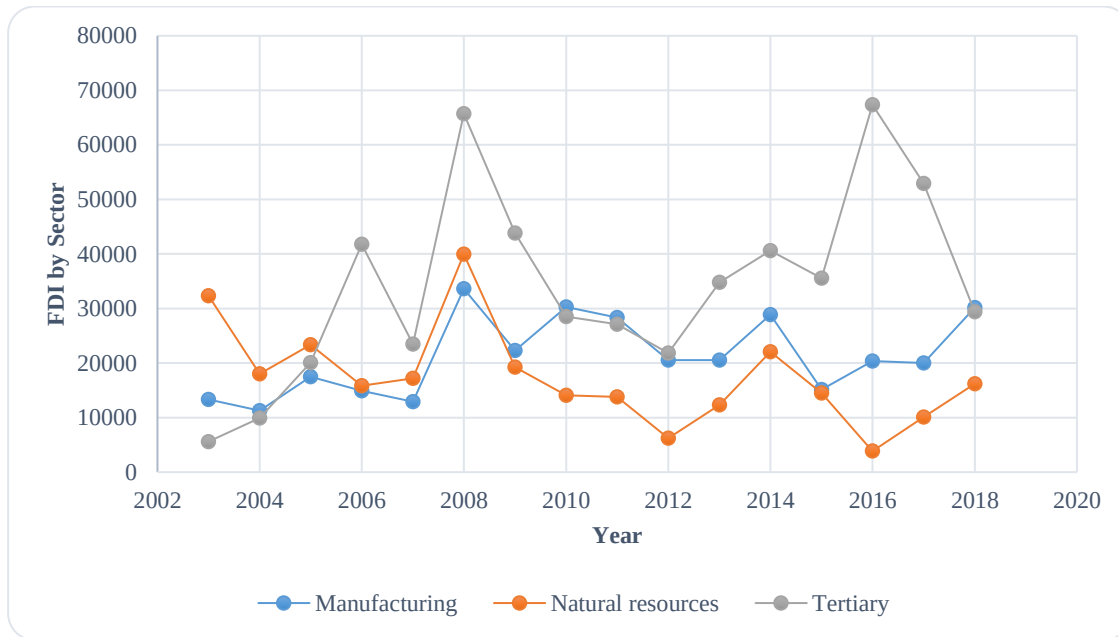


Figure 4.8 Sectoral decomposition of FDI in Africa (2003-2018)

Data source: FDI Markets

A closer examination of the trajectory suggests that previous narratives of Africa being able to attract only resource-seeking FDI have dramatically shifted in favour of other sectors of the economy. As shown in Figure 4.8, Africa attracted almost \$32,311.50 million worth of natural resource-seeking FDI, while only \$13,333.51 million and \$5,599.80 million went into the manufacturing and tertiary sectors in 2003, respectively. The tertiary sector would later attract \$67,342.20 million in FDI in 2016, while \$20,334.5 million went into manufacturing and only \$3,846.10 million into the natural resource sectors. Generally, Greenfield FDI into the natural resource sector has declined more than any other sector since the global financial crisis in 2008. However, the global downward trend in FDI was reversed in Africa by an 11 per cent increase to \$46 billion in 2018, despite the overall decrease into giant economies such as Nigeria, Egypt and Ethiopia. This was accounted for by the sustainable non-resource seeking FDI into some countries.

FDI provides the principal source of external finance to most developing economies and that is why many countries continue to explore better ways of attracting such investments. According to UNCTAD (2017), many governments have in recent years engaged in the process of invigorating their investment policies to facilitate the transition from natural resource into newer sectors of the economy with higher productivity in order to enhance sustainable development. This could be seen from increased investment in diversified sectors of the economies being witnessed in countries such as Egypt, Morocco, Tunisia and Algeria. While West Africa, and Nigeria in particular, realised reduced FDI by 11 per cent and 21 per cent, respectively, Nigeria attracted market-seeking technology firms

from the USA such as Facebook, Meltwater Group and Uber. Chinese efficiency-seeking manufacturing firms also invested in textile, automotive and aerospace industries. Ghana's diversified economy also continued to facilitate FDI inflows, while Cote d'Ivoire attracted investments in consumer goods. Russian producer, KAMAZ, pledged to invest \$60.5 million in truck assembly in Senegal, while investments in central Africa were basically in the primary sector. The increased investments into more diversified sectors is expected to reduce Africa's vulnerability to commodity bust.

4.4.1 Major recipients of Greenfield investments

Africa still receives a small volume of FDI inflows relative to other developing regions of the world. These inflows remain unequally distributed across the continent – with only five countries hosting 57 per cent of the continent's total FDI inflows in 2018. Despite the traditional predictors of patterns of FDI into the continent, many African countries are now increasingly receiving diversified investments from major players such as China, the USA and France. A combination of investment reforms through the restructuring of investment agreements, and the agency of new players (particularly from China and other emerging economies such as Turkey and Korea) on the field are actively driving a change in the FDI landscape on the African continent (World Investment Report, 2018).

Table 4.3 Greenfield FDI into Africa (2003-2018)

Nº	Country	Amount(\$)	Nº	Country	Amount(\$)	Nº	Country	Amount(\$)
1	Egypt	235970.8	21	Gabon	10061.4	41	Togo	1556.5
2	Nigeria	119614.1	22	Namibia	9953.4	42	Eritrea	1515.4
3	South Africa	97881.31	23	Sudan	8920.8	43	Burundi	1114.5
4	Angola	77035.39	24	Guinea	8592	44	Somalia	1113.3
5	Algeria	75400.24	25	Madagascar	8322.4	45	Cape V	1065.2
6	Morocco	71891.84	26	Congo, Rep	8270.3	46	Eswatini	1064.2
7	Mozambique	58227.89	27	Rwanda	7902.9	47	Gambia	1064.1
8	Ghana	43310.48	28	Botswana	7063.1	48	Lesotho	1039.1
9	Libya	32702.93	29	Liberia	6728.3	49	Guinea, B	1037.8
10	Ethiopia	28619.01	30	Mauritania	5443.1	50	Seychelles	1000.72
11	Tunisia	28127.29	31	Niger	5397.2	51	Benin	797.11
12	Zambia	22142.36	32	E. Guinea	5284.1	52	Sao T & P	458.5
13	Tanzania	21216.28	33	Djibouti	5183.5	53	CAR	265.8
14	Kenya	19600.24	34	Mauritius	4658.1	54	Comoros	161.4
15	Zimbabwe	18342.38	35	S. Sudan	4424.4			
16	Congo, Dem	18250.65	36	S. Leone	4379.3			
17	Cameroon	17845.49	37	Mali	3143.9			
18	Uganda	16814.95	38	B. Faso	3121.6			
19	Cote d'Ivoire	12117.8	39	Malawi	2818.6			
20	Senegal	11091.72	40	Chad	1834.1			

Source: Author's compilation (2020), data from FDI markets

Table 4.3 ranks African countries by Greenfield Investments received from 2003-2018. It can be observed that Egypt, Nigeria, South Africa and Angola have received the largest amounts of Greenfield investments since 2003, while Sao Tome and Principe, Central African Republic and Comoros received the least amount of amounts of Greenfield investments over the entire period. Ethiopia has recently emerged as a major FDI destination, attracting \$3.2 billion in 2016, that represented a 46 per cent increase from 2015.

Comparing Tables 4.2 and 4.3, it would be observed that although Angola is the least overall host of FDI stocks in Africa, significant amounts of Greenfield investments have been flowing into the country and it was the 4th largest recipient in terms of Greenfield investment between 2003 and 2018. This historical low inflow of FDI into Angola can be attributed to its long-term civil war that ended in 2002.

The period during this civil war was characterized by political instability and a poor investment climate that was not conducive for foreign investments.

4.4.2 Major Greenfield investors in Africa

In 2018, France continued to have the largest stock of FDI among all foreign investors in Africa, which was due in part to its strong colonial ties with many countries on the continent and heavy investments in major hydrocarbon producing economies such as Nigeria and Angola. However, French total stock of FDI in Africa has not changed by a significant proportion since 2013. The Netherlands has also gradually ascended to become a major foreign investor in Africa, although two-thirds of its investments are concentrated in Nigeria, South Africa and Egypt. The United States and the United Kingdom are still important players in terms of foreign investments in Africa, although 2017 statistics showed that their overall stocks of FDI decreased due to divestments. The United Kingdom has also announced their desire to become the leading G7 investor in Africa by 2022.

Table 4.4 Major Greenfield investors in Africa (2003-2019), millions of \$US

Activity	China	France	Germany	India	SA	Spain	Switzerland	UAE	UK	US	GT
Business Services	24	199	42	96	179	49	88	136	346	214	1373
Construction	19	39	8	15	31	43	17	71	30	32	305
Customer Contact Centre	1	31	2	15		4	2	1	22	26	104
Design, Development & Testing	7	34	21	10	2	4	16	3	18	49	164
Education & Training	17	27	9	8	8		4	7	10	39	129
Electricity	16	30	1	14	1	14		20	19	38	153
Extraction	20	20	3	10	19	3	9	11	108	56	259
Headquarters	11	16	8	6	8	7	3	9	27	37	132
ICT & Internet											172
Infrastructure	9	24	2	26	33	1	5	8	21	43	279
Logistics, Distribution & Transportation	18	42	44	9	14	18	15	31	34	54	58
Maintenance & Servicing	12	9	7	1	2		5	2	7	13	1415
Manufacturing	214	245	138	150	67	97	75	46	174	209	27
Recycling	4	7	1	2		4	1	3	2	3	35
Research & Development	3	9	2	1		1	2		6	11	517
Retail	14	83	15	43	101	69	25	65	28	74	1392
Sales, Marketing & Support	54	174	162	72	109	79	50	90	215	387	17
Shared Services Centre	1	4		2			2	1		7	26
Technical Support Centre	3	3	1	9						10	6557
Grand Total(GT)	447	996	466	489	574	393	319	504	1067	1302	

Source: Source: Author's compilation (2020), data from FDI markets

On the other hand, China's investments on the continent are rising exponentially and they recorded a more than 50 per cent increase between 2013 and 2017. Table 4.4 summarises major Greenfield investors in Africa by source from 2003 to 2019, and their sectors of activities according to data obtained from FDI Markets. China, France, Germany, India and South Africa are the top 5 Greenfield investors in Africa, accounting for more than 50 per cent of all new investments.

4.5 International investment agreements

4.5.1 Bilateral investment treaties

The growing level of global economic integration is helping to facilitate the convergence of economic policies at bilateraal, regional, interregional and multilateral levels. This has been spearheaded by the importance of FDI that led to the emergence of its international legal framework. As a result, there is now an extensive number of bilateral and international investment agreements (IIAs) in existence. These IIAs have a long history that dates back to the eighteenth century. Vandevelde (2005) has classified these agreements into those during the colonial era, those that existed through the late eighteenth century until the end of World War II; those during the post-colonial era that began at the end of World War II right to the 1990s; and IIAs during the global era that started in the 1990s until the present era. The protection of foreign investments was never a major factor during the colonial period, though a few colonial administrations included clauses on the protection of foreign property in the territory of another country. For example, the United States of America is reported to have signed bilateral treaties of Friendship, Commerce and Navigation (FCN) in the eighteenth century, which granted special or perfect protection of investments in both countries, and compensation in the event of any expropriation.

The post-colonial era of IIA began immediately after the Second World War. This saw the creation of the General Agreement on Tariffs and Trade (GATT) in 1947. The creation of GATT shifted the focus from bilateral to multilateral trade agreements, which aimed to liberalise global trade. In March 1948, the Havana Charter, previously known as the Final Act of the United Nations Conference on Trade and Employment, was signed by 56 countries. This separate treaty designed to establish a liberal regime for both investment and trade was never implemented. Its failure greatly diminished the significance of bilateral trade agreements as GATT became the main forum through which all trade negotiations were being made.

In 1974, the United Nations General Assembly adopted the New International Economic Order (NIEO). This gave sovereign states rights to nationalise or expropriate foreign investments according

to their national laws. Potential risks posed by this order to foreign property led to a response from developed countries in which they initiated BITs. Germany would become the first country to conclude bilateral investment agreements, one with the Dominican Republic and another with Pakistan in 1959 (UNCTAD Data, 2019). BITs became highly favoured since they disinclined countries from altering their domestic investment policies, and consequently, elevate them to the level of international laws that bind such investments.

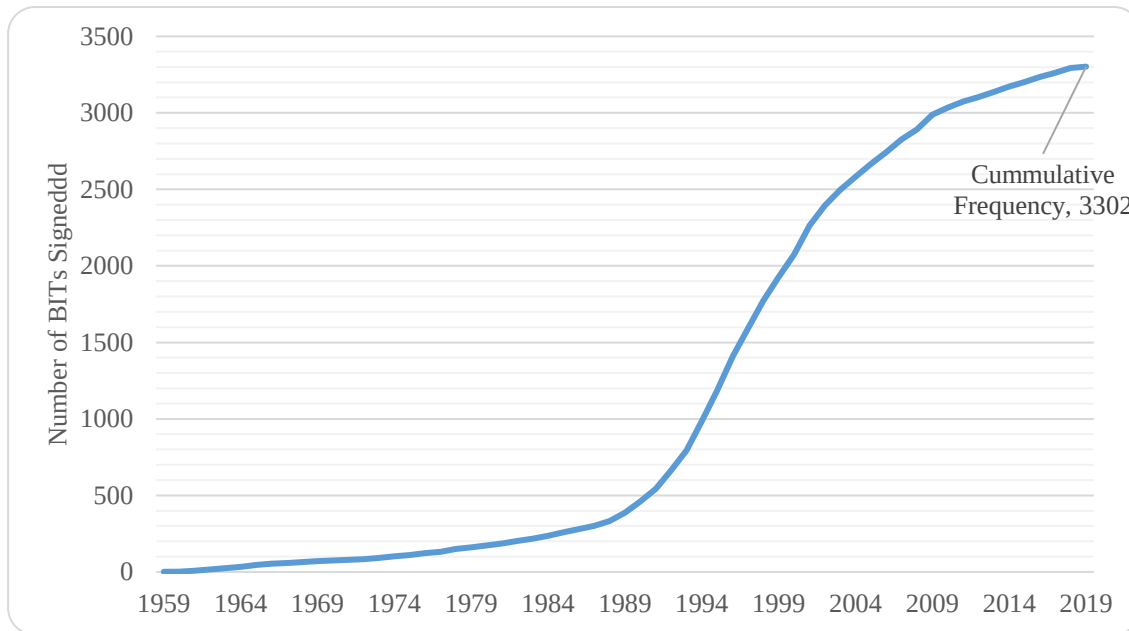


Figure 4.9 Cumulative number of BITs signed

Source: Author's compilation (2020), data from Investmentpolicyhub

During the early 1960s, Germany signed more BITs with other developing countries including Malaysia, Togo, Thailand and Guinea. Switzerland, the Netherlands and France also quickly started signing investment treaties with mostly developing nations. However, BITs were still not very popular and by 1990, the cumulative number of BITs signed was only 460 of which 333 were in force and 109 terminated. From 1990 to 2000, the cumulative number of BITs increased and by October 2019, 3302 BITs had been signed with 2339 in force and only 331 terminated at the global level. The changing patterns of cumulative BITs signed since 1959 are presented in Figure 4.9.

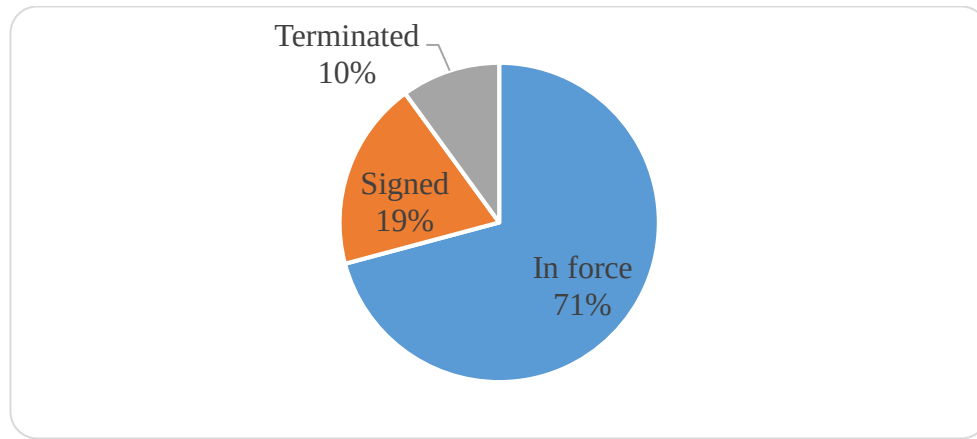


Figure 4.10 Status of BITs since 1959

Source: Author's compilation (2020), data from Investmentpolicyhub

As shown in Figure 4.10, only 10 per cent of all BITs signed since 1959 have been terminated (309), 19 per cent have not yet been ratified, while 71 per cent are in force. In 2016, 37 new IIAs were signed and there were at least 19 termination of treaties. Furthermore, the number of treaties terminated has been increasing significantly since the 1990s, when investment treaties spiraled. There are increasing concerns that countries are beginning to question the content of most treaties, especially in Africa, thereby re-adjusting their policy engagements. Among many others is South Africa that unilaterally terminated BITs with European member countries in 2012 and even planned to cancel further. Accordingly, the South African government's aim has been to replace all international protection laws with its domestic regulations on foreign investments.

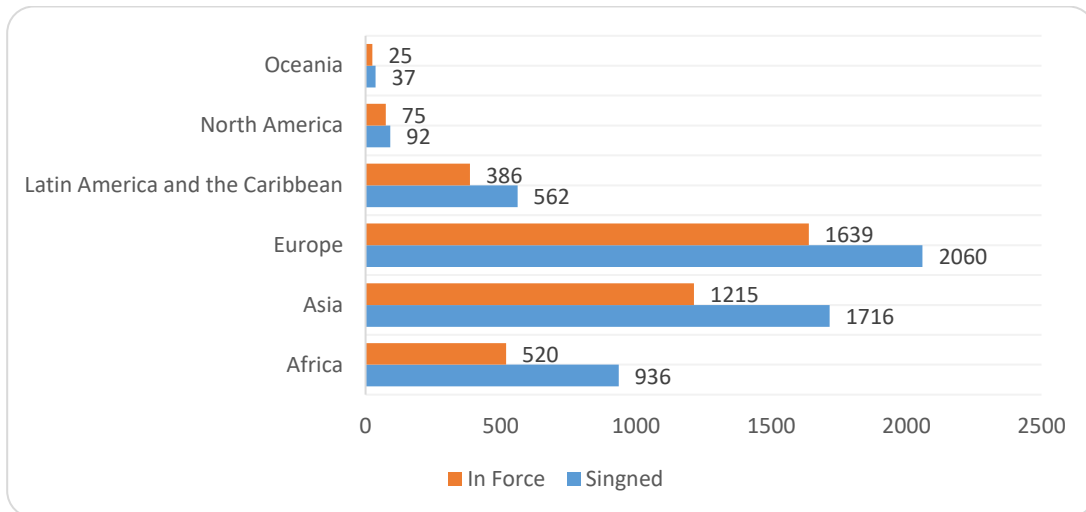


Figure 4.11 Distribution of BITs by Status since 1959

Source: Author's compilation (2020), data from Investmentpolicyhub

Figure 4.11, on the other hand, presents the distribution of BITs by continent. It would be observed that European countries have so far signed more BITs than any other continent having 1639 active BITs as of November, 2019. They are closely followed by Asia, Latin America and the Caribbean, and lastly, Africa. Oceania has the least number of BITs and is closely followed by the United States of America with just 92 active BITs in 2019, despite being one of the leading foreign investors across the globe.

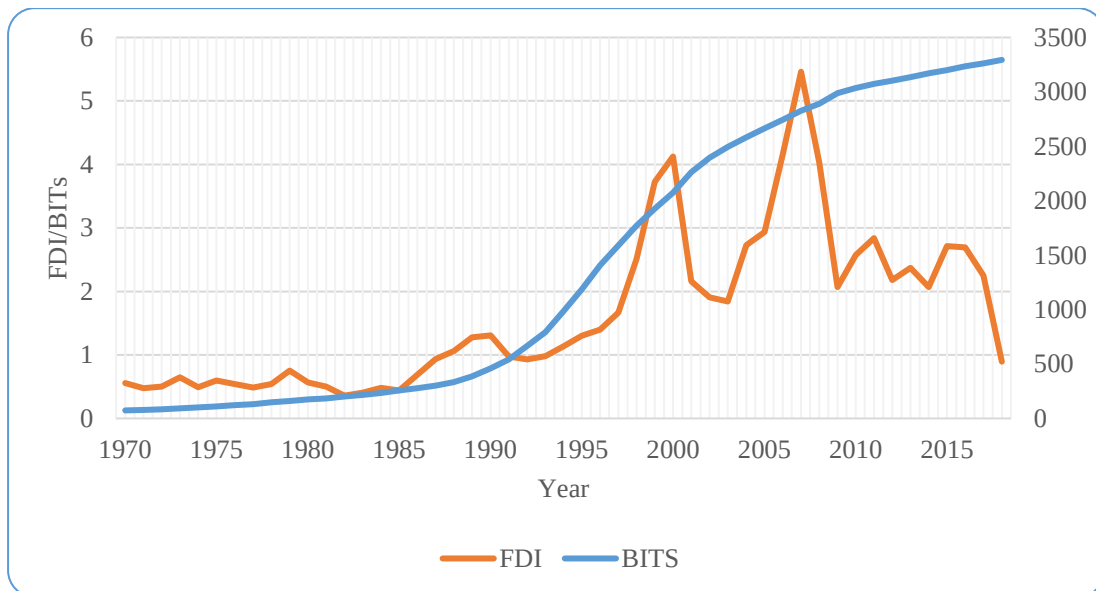


Figure 4.12 Trends of FDI and BITs

Source: Author's compilation (2020), data from Investmentpolicyhub and WDI

Furthermore, Figure 4.12 shows the trend of FDIs and the cumulative number of BITs from 1970 to 2018. It can be observed that, while the pattern of BITs has had an average linear trend, FDI shows a similar pattern with some seasonality. From 1970 to 1990, BITs were not yet very popular as many countries were still adamant to liberalise their economies. Consequently, inward FDI was generally very low. However, the post-1990s correspond with the current global age in which more BITs were signed by nations, economies became increasingly liberalised and inward FDI similarly increased significantly, reaching 5.4 per cent of global gross domestic product in 2007. However, post-2007 corresponds with the global financial crisis in 2008, in which the flow of FDI dropped significantly and the world is yet to recover from it.

4.5.1.1 *Bilateral investment treaties in Africa*

The history of IIAs in Africa corresponds with those during the post-colonial era until present. The end of WWII saw the creation of newly independent states in Africa that were economically underdeveloped. These independent states regarded foreign investments as a form of neocolonialism and, therefore, were very protective of their independence. They also pushed at the UN General Assembly for the recognition of their right to expropriate foreign investments without a fair compensation at market values, a move that was adopted in May 1974.

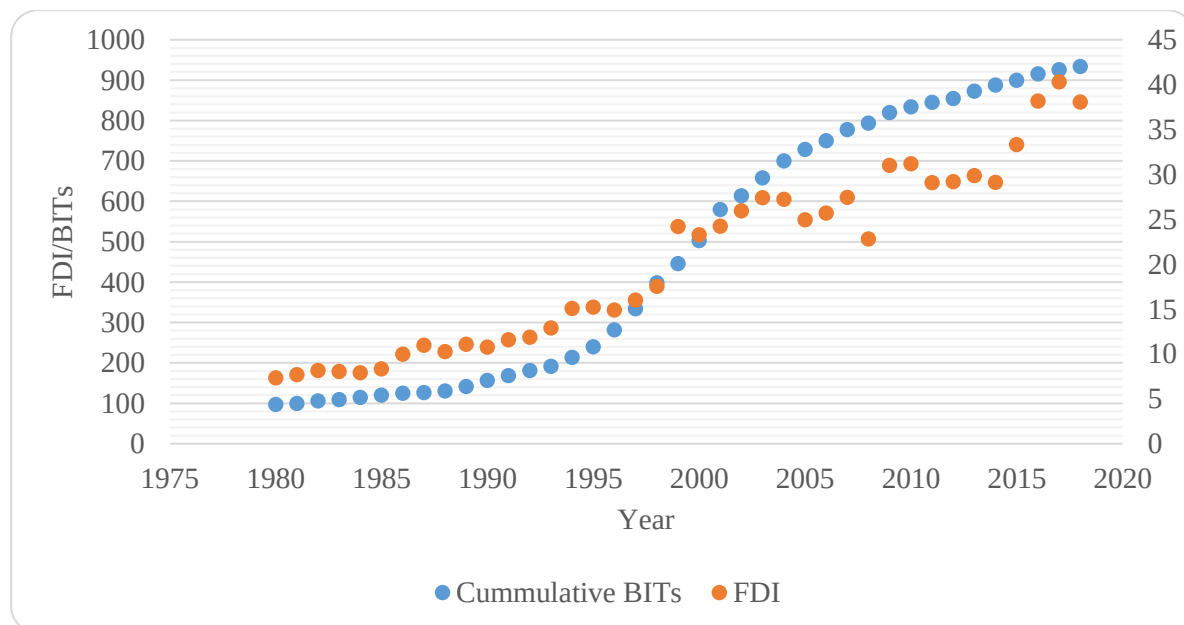


Figure 4.13 Trends of FDI and BITs in Africa

Source: Author's compilation (2020), data from Investmentpolicyhub and UNCTAD

Therefore, customary international law was evidently deficient in protecting international investments, which potentially gave BITs an advantage in protection. After Germany signed the first BIT in 1959, other European countries, including France, quickly followed and they became the legal mechanism that governs FDI. Togo was the first African country to sign a BIT with Germany in 1961. Morocco, Tunisia and Liberia also signed BITs in 1961 with Germany and Switzerland. However, only 97 BITs were signed from 1961 to 1980. By 2019, 936 BITs had been signed cumulatively by African countries, most of them in the 1990s. Figure 4.13 shows the trend of inward FDI and cumulative number of BITs signed from 1980 to 2018 in Africa. It can be observed that both series show linear trends implying that an increase in BITs correlate with FDI into Africa. Both trends had a similar pattern until after the 2008 global financial crisis when FDI started experiencing sharp decreases.

4.5.1.2 Intra-African BITs

Despite the number of BITs signed, African countries are known for short-term attempts to liberalise their economies. FDI, by nature is a long-term venture and countries need to demonstrate over a long period that they can commit to policies in order to attract the kind of investments that can promote sustainable economic development. Investigating the effects of these BITs over a relatively longer period can lead to more informed conclusions on their effects on foreign investments in Africa.

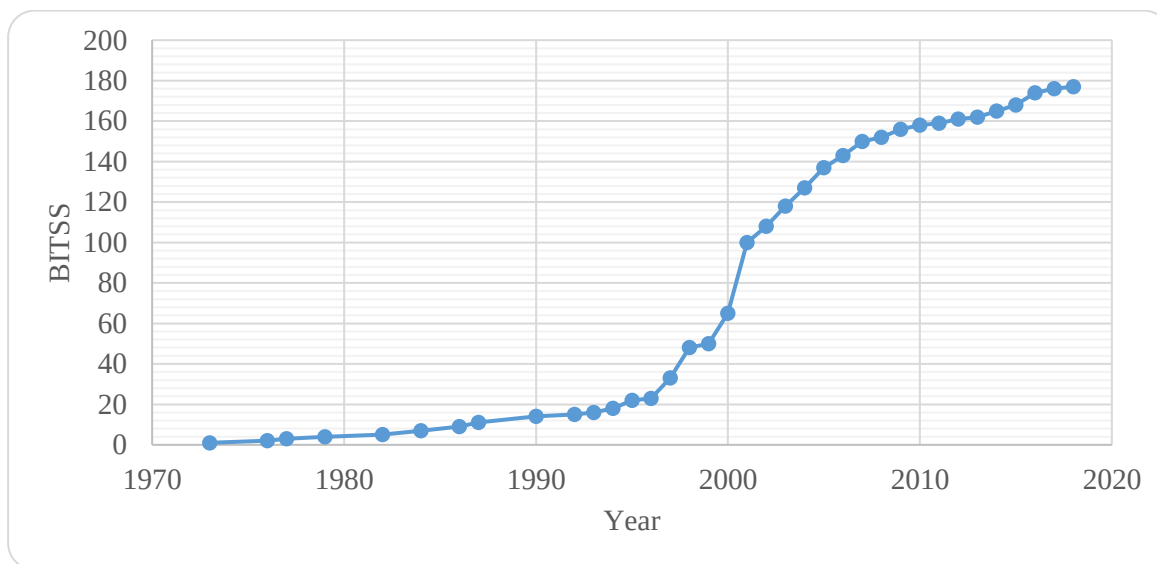


Figure 4.14 Intra-African BITs

Source: Author's compilation (2020), data from Investmentpolicyhub

Figure 4.14 shows the growth of intra-African BITs from 1970 until 2019. Intra-African BITs started very slowly in the 1970s and peaked in the 1990s. BITs between African countries are still very few which confirms the narrative that inter-African trade is still very slow and should be promoted. The first

intra-African BIT was signed in 1973 between Tunisia and Libya. A total of 177 of them have since been signed between African countries, 46 are still in force, 126 are yet to be active and five have already been terminated. A number of African countries including South Africa, Nigeria and Northern African countries also contribute significantly to intra-African BITs and FDI, respectively. While BITs with Western countries are expected to contribute more to FDI and important spillover effects due to their technological advancement, the effect of intra-African BITs cannot be underestimated, especially with efforts being directed towards promoting intra-African trade.

Domestic investment presents an opportunity for African countries to adopt an endogenous model to sustainable development. Studies have also established that there is a positive relationship between domestic investment and FDIs. Therefore, while policymakers generally agree that BITs improve the domestic business environments and attract foreign investments, such explorations should also consider their effects on domestic levels of investments.

Finally, the African continental Free Trade Area (AfCFTA) is now in its operational phase after successfully pooling together 54 countries by June 2019. Only Eritrea has so far not signed the agreement that is already operational in 27 African nations. It aims to create a single African market for goods and services on the continent; fostering the free movement of people and investments with the ultimate objective of paving the way for the establishment of an African customs union. There are high expectations that the agreement will stimulate trade flows across African regions, improve industrial production and reduce the overreliance on the primary sector. It will also facilitate job creation, enhance competition between small and medium size enterprise (SMEs), reduce poverty and set Africa on a promising trajectory towards growth and sustainable development.

The private sector would certainly benefit more when both tariff and non-tariff barriers on trade in goods are eliminated and trade in services liberalised. GDP is projected to range from \$2.1 trillion to \$3.4 trillion or \$6.7 trillion by 2030 and could attract up to \$4 trillion worth of investments (Azikiwe, 2018; International Trade Centre, 2018). This multilateral approach to regional economic integration in Africa holds a great deal of potential for future trade and value additions in supply chains.

4.5.2 Treaties with investment provisions (TIPS)

Besides BITs, African countries have also been actively engaged in preferential trade agreements and the establishment of some treaties with investment provisions (TIPS). According to the WTO (2011), the global number of PTAs increased dramatically from 18 to 35 per cent between 1990 and 2008 (Cardamone & Scoppola, 2012). There are also intra-African TIPs, and those that have been signed with non-African countries. These treaties are presented in Table 4.5 and 4.6 below.

Table 4.5 Intra-African treaties with investment provisions

No.	Short Title	Status	Parties
1	ECOWAS Supplementary Act on Investments	In force	ECOWAS (Economic Community of West African States)
2	COMESA Investment Agreement	Signed	COMESA (Common Market for Eastern and Southern Africa)
3	SADC Investment Protocol	In force	SADC (Southern African Development Community)
4	ECOWAS Energy Protocol	Signed	ECOWAS (Economic Community of West African States)
5	EAC Treaty	In force	EAC (East African Community)
6	WAEMU Treaty	In force	WAEMU (West African Economic and Monetary Union)
7	COMESA Treaty	In force	COMESA (Common Market for Eastern and Southern Africa)
8	Revised ECOWAS Treaty	In force	ECOWAS (Economic Community of West African States)
9	SADC Treaty	In force	SADC (Southern African Development Community)
10	AU Treaty	In force	AU (African Union)
11	Arab Maghreb Union Investment Agreement	Signed	UMA (Arab Maghreb Union)
12	ECCAS Treaty	In force	ECCAS (Economic Community of Central African States)
13	ECGLC Investment Code	In force	CEPGL (Economic Community of the Great Lakes Countries)
14	ECOWAS Protocol on Movement of Persons and Establishment	In force	ECOWAS (Economic Community of West African States)
15	CEMAC Convention on Liberalization	In force	CEMAC (Economic and Monetary Community of Central Africa)
16	CEMAC Investment	In force	CEMAC (Economic and Monetary Community of Central Africa)
	The African Continental Free Trade Area (AfCFTA)	Signed	54 African countries, except Eritrea

Source: Author's (2020), compiled from PolicyHub, UNCTAD

Table 4.5 presents a summary of 17 intra-African TIPs. However, investment between African countries is still relatively low and the most effective treaties that can be expected to attract heavy investments are those with Western countries due to their technological capabilities and availability of capital that is mostly inadequate in these countries.

Table 4.6 Extra-African treaties with investment provisions

No.	Short Title	Status	Parties
1	EU - SADC EPA Group Agreement (2016)	Signed	Botswana, Eswatini, EU (European Union), Lesotho, Mozambique, Namibia, South Africa
2	ECOWAS - US TIFA (2014)	Signed	ECOWAS, United States of America
3	Libya - United States TIFA (2013)	Signed	Libya, United States of America
4	Eastern and Southern Africa States - EU Interim EPA (2009)	Signed	Comoros, EU (European Union), Madagascar, Mauritius, Seychelles, Zimbabwe
5	Angola-US TIFA	Signed	Angola, United States of America
6	EU - SADC Interim Agreement (2009)	Signed	Botswana, Eswatini, EU (European Union), Lesotho, Mozambique
7	EU - Cameroon EPA	Signed	Cameroon, EU (European Union)
8	Cote d'Ivoire-EC EPA	Signed	Côte d'Ivoire, EU (European Union)
9	EAC - US TIFA (2008)	In force	EAC (East African Community), United States of America
10	SACU-US TIFA	In force	SACU (Southern African Customs Union), United States of America
11	Liberia-US TIFA	In force	Liberia, United States of America
12	EFTA-Egypt FTA	In force	EFTA (European Free Trade Association), Egypt
13	Mauritius-US TIFA	In force	Mauritius, United States of America
14	EFTA-SACU FTA	In force	EFTA (European Free Trade Association), SACU (Southern African Customs Union)
15	Rwanda-US TIFA	In force	Rwanda, United States of America
16	Egypt-Turkey FTA	In force	Egypt, Turkey
17	Mozambique-US TIFA	In force	Mozambique, United States of America
18	EFTA-Tunisia FTA	In force	EFTA (European Free Trade Association), Tunisia
19	Tunisia-Turkey FTA	In force	Tunisia, Turkey
20	Egypt-Mercosur Framework Agreement	Signed	Egypt, MERCOSUR (Mercado Común Sudamericano)
21	Morocco - US FTA (2004)	In force	Morocco, United States of America

22	Morocco-Turkey FTA	In force	Morocco, Turkey
23	US-WAEMU TIFA	In force	USA, WAEMU (West African Economic and Monetary Union)
24	Algeria-EC Association Agreement	In force	Algeria, EU (European Union)
25	EC-OCT Association	In force	EU (European Union), OCT (Overseas Countries and Territories)
26	COMESA-US TIFA	In force	COMESA, United States of America
27	Algeria-US TIFA	Signed	Algeria, United States of America
28	EC-Egypt Association Agreement	In force	Egypt, EU (European Union)
29	Cotonou Agreement (2000)	In force	ACP (African, Caribbean and Pacific Group of States), EU (European Union)
30	Nigeria-US TIFA	In force	Nigeria, United States of America
31	EC-South Africa Cooperation Agreement	In force	EU (European Union), South Africa
32	Egypt-US Investment Development Agreement	In force	Egypt, United States of America
33	Ghana-US Investment Development Agreement	In force	Ghana, United States of America
34	South Africa-US TIFA	In force	South Africa, United States of America
35	Canada-South Africa Cooperation Agreement	Signed	Canada, South Africa
36	EFTA-Morocco FTA	In force	EFTA (European Free Trade Association), Morocco
37	EC-Morocco Association Agreement	In force	EU (European Union), Morocco
38	EC-Tunisia Association Agreement	In force	EU (European Union), Tunisia
39	Egypt - Saudi Arabia (1990)	In force	Egypt, Saudi Arabia

40	OIC Investment Agreement (1981)	In force	OIC (Organisation of Islamic Cooperation)
41	Arab Investment Agreement (1980)	In force	League of Arab States
42	Libya - Malta Agreement on Movement of Capital for Investment (1973)	In force	Libya, Malta
43	Gabon - Switzerland TIA (1972)	In force	Gabon, Switzerland
44	Arab League Investment Agreement(1970)	In force	League of Arab States
45	Rwanda - Switzerland TIA (1963)	In force	Rwanda, Switzerland

Source: Author's (2020), compiled from PolicyHub, UNCTAD

On its part, Table 4.6 presents a summary of extra-African TIPs. The most important treaties in this category are those with the European Union that have been active in promoting North-South agreements. These include the African-Caribbean and Pacific (ACP) countries, South Africa, European Free Trade Association and Economic Partnership Agreement. These agreements have evolved to include non-trade provisions such as investments, standards of treatment and dispute settlement, competition policy, intellectual property rights and services. Other agreements such as the Cotonou Agreement, which was signed in 2000 between the EU and ACP countries, were also expected to increase trade and investment flows between EU member states and their ACP counterparts.

Therefore, countries having treaties that involve clauses on investment with the EU can be expected to be opened to a variety of nations and should attract FDI from firms that are both inside and outside the EU (investment creation effect). Cardamone and Scoppola (2012) argue that besides this investment creation effect, EU PTAs may also displace FDI in developing countries when MNCs prefer to concentrate their plants in one partner country to benefit from economies of scale (investment diversion effect).

Besides those with the European Union, many, including the Arab League Investment Agreement of 1970, Organisation of Islamic Cooperation signed in 1981 and many others with the United States such as the Common Market for Eastern and Southern Africa and US-WAEMU TIFA have also played significant roles in signalling a better investment climate. Furthermore, membership of the WTO has also been found to correlate with the flow of investments in some countries. However, this study only covers a few extra-African TIPs like the AGOA, EU treaties and WTO membership.

4.5.2.1 The African Growth and Opportunity Act (AGOA)

The African Growth and Opportunity Act is a United States trade act that enhances qualified Sub-Saharan African countries to have access to US markets on some defined commodities. Qualification to this initiative is based on the country's acceptance to work on upholding the rule of law, democracy, human rights and labour standards. The initiative was enacted on 18 May 2000 and has since been renewed until 2025. AGOA is basically a US free trade agreement that was extended to Africa. It previously existed under the Generalised System of Preferences (GSP) programme and the combined AGOA/GSP market covers close to 6500 products (African Growth and Opportunity Act, 2018).

As a result of this initiative, two-way trade in good between the United States and Africa increased by 5.8 per cent from \$36.9 to \$39 billion dollars between 2015 and 2017. Sub-Saharan FDI in the U.S. stood at \$4.2 billion in 2016, up 164% compared to \$1.6 billion in 2014; while US investment in SSA stood at \$29 billion in 2016, despite decreasing by 23% compared to \$37.5 billion in 2014. The three largest destinations for U.S. investment were Mauritius, South Africa and Nigeria.

Similarly, the main suppliers from SSA to the United States were South Africa, Nigeria, Angola, Cote d'Ivoire and Botswana.

4.6 Africa's political environment

One of the most important considerations by multinational enterprises when making location decisions of their firms is the political environment of the host nations. MNEs will generally wish to locate their firms in democratic countries with apt institutions, economic freedom and respect for the rule of law. In fact, the 1990s literature on economic development was more focused on institutional quality as the main determinant of cross-country variations in FDI and economic growth. There is also growing evidence that IIAs have a close collinearity with the domestic investment climate. Therefore, the political environment remains fundamental in understanding patterns of FDI, especially in this era where total value of trade in services has transcended merchandise trade and is now at the centre of future trade policy. Africa's political environment and how it affects economic growth and FDI remains of striking importance due to their inextricable link.

This is because the political environment influences the quality of governance which translates into how broader macroeconomic fundamentals perform. According to Oloruntoba and Falola (2018), politics in Africa are characterised by the antinomies of liberal and radical thoughts. Liberalists such as Samuel Huntington and Sidney Verba generally considered African countries as arenas for power tussles that make conflicts inevitable. This has been attributed to poor leadership, as well as lack of legitimate political authority that has often resulted in frequent coup d'etats among other challenges.

The continent has mostly been ruled by dictators with the barrel of the gun, poor implementation of the rule of law, as well as high levels of corruption and embezzlement. According to Transparency International, SSA remains one of the most corrupt regions in the world. This is due to its weak political institutions and high levels of tribalism and nepotism. Many Western and Asian countries also have been accused of taking advantage of these weak political institutions to project their agenda (Demir, 2016). Similarly, the greatest challenge confronting African institutions is that they were inherited from their colonial masters and scarcely reflected their socio-cultural realities. This created a dysfunctionality between formal institutions, the informal and traditional ones. A sound political system is usually a prerequisite for performance of FDI. Consequently, investors will generally shy away from countries with weak political institutions and democracy.

4.7 Chapter conclusion

In this chapter, the global patterns of FDI have been discussed, particularly those in Africa. The approach followed identified major sectors of investments, investors, recipients and the changing

patterns of FDI in Africa. The chapter suggests that although Africa is not yet a major recipient of FDI on the global scale, the emerging pattern of more FDI being directed into the secondary and manufacturing sectors gives all nations irrespective of their natural resource endowments some future potential of being a major beneficiary from foreign investments. This seems to contradict the traditional narrative that predicted FDI to flow mostly into resource-rich countries, despite the fact that the resource sector still remains vibrant. Many African countries have also engaged in both bilateral and multilateral trade agreements as a way of attracting more FDI. This may have also accounted for the growing level of diversification on the continent. China has been spearheading this drive towards diversifying FDI on the continent.

Besides BITs, many African countries also sign preferential trade agreements that often include clauses on investment. The cumulative effect has been an improving business environment, despite being in a region full of turbulence. The growing number of BITs is traditionally expected to signal a safe business environment and attract FDI. In the next chapter, the various methods used in collecting and analysing data would be clearly explained. The chapter would also present a game-theoretic framework that was adapted from game theory to explain FDI as a set of dynamic choices between the home country and foreign investors while factoring risk of expropriation.

5. Chapter 5 Data and estimation strategies

5.1 Introduction

This chapter explains the approaches that underpins the research with clear justifications of the methods chosen to meet the primary aims of the study. This systematic organisation of the chapter is necessary to show how variables in the study were operationalised in order to realise the specific objectives. It is divided into nine sections. In section 5.2, the research design is presented. This is followed by the setting and samples in section 5.3, which shows which countries were retained for the analysis and why others had to be dropped. Section 5.4 details an innovative game-theoretic framework to modelling IIAs that motivates the empirical framework in section 5.4.2. The various models estimated are presented in section 5.5 with their requirements and potential challenges often faced in empirical studies. This section also shows how these challenges were overcome within our context. In subsection 5.5.4, we present model diagnostics that ensure the validity of the results. Section 5.6 presents all variables used in the study and their measurements while 5.7 details how the data were transformed and managed prior to the empirical analysis. Finally, section 5.8 presents result of principal components analysis as a data reduction procedure to ease our analysis on economic freedom and infrastructure, while section 5.9 concludes the chapter with a summary.

5.2 Research design

The study employs a non-experimental research design since we cannot manipulate the trajectory of events or variables under investigation. It typically involves correlational studies, comparative research and longitudinal studies. This study utilises the longitudinal design in its framework. Although some longitudinal studies can be structured as randomised experiments that are credited for having more power to make causal inferences, its retrospective nature supports only the observational approach in which the researcher observed the state of nations, investment agreements and patterns of FDI without being able to manipulate them.

The repeated nature of observations at the individual levels, however makes it stronger than cross-sectional studies because of its ability to remove time-invariant and unobserved individual effects of selected samples. Furthermore, there are many types of longitudinal studies. These include cohort studies, record linkage studies and panel studies. The study specifically adopted the panel design, which involves pooling cross-sectional and time series data. Consequently, the study is more of a cross-sectional time series study. Menard (2008) describes this as a longitudinal panel design.

Within the context of this design, the quantitative research approach was adopted. The researcher had no control over the variables and environment in which the study was being investigated. The method, therefore, permits measurements of change and explanations of why the change took place. Besides investigating the impact of the aggregate number of international investment treaties on FDI, an indepth analysis was also carried out on some intra and extra-African IIAs to ascertain their specific effectiveness in attracting FDI. Results of our quantitative data analysis were used to make generalisations on the entire patterns of FDI in Africa, with IIAs as the main covariate.

5.3 Setting and sample

The sample for this study is the continent of Africa and the data cover the years 2000 to 2018. According to Green (2018), African borders are exogenous to present political regimes since they were largely divided by colonisers during the Berlin conference from 1884 to 1885, which led to an increase in the activities of European colonial powers. Consequently, such exogenous colonial borders make cross-country regressions more realistic since the units of analysis are already clearly delineated.

This may not be the case in places such as Europe and South-East Asia because borders were demarcated by political and military powers and units of analysis could suffer from endogeneity with variables of interest. Furthermore, African countries achieved their independence at almost the same time and have gone through similar experiences in terms of economic growth and other socio-political challenges before and after the colonial period. This similarity of experiences further make cross-country comparisons more reasonable and realistic.

The dataset used in the study is taken from multiple sources as shown on the table of variable description. These include the World Development Indicators (WDI), United Nations Conference on Trade and Development (UNCTAD), Transparency International, the Heritage Foundation in collaboration with the Wall Street Journal, the Polity IV database and Policyhub. The Heritage Foundation has an extensive database of economic freedom indices covering 186 countries since 1995.

It is a balanced panel that covers 19 years, starting from 2000 to 2018. This period represents the most recent trends and economic experiences of African countries. It also covers the period within which the largest number of investment treaties effectively went in force, and more treaties were also signed both between African countries and the rest of the world. It also corresponds with the period within which African countries opened their domestic economies, as a result of structural adjustment programmes, after prolonged periods of trade restrictions. Such a contemporary study with recent data is necessary to understand and address current challenges

that countries are facing in financing development. Data are not completely available for every country, which is a common feature for panel data to have some missing observations.

However, the final sample retained for the study has 950 observations that spans 50 countries. This is a relatively larger sample than in most panel studies on Africa. The sample excludes small island countries such as Sao Tome and Principe and Seychelles while mainland countries such as Somalia, South Sudan and Western Sahara were removed because they did not have sufficient data needed for the study over the given period. The removal of these very small economies can reduce the extent of heterogeneity between cross-sections. The estimations also examine the effects of landlockness and a further dummy for countries in least developed countries (LDCs) The choice of Sub-Saharan African countries was based on the list proposed by the UN Development programme, which excludes Algeria, Djibouti, Egypt, Libya, Morocco, Somalia, Sudan and Tunisia (UNDP, 2020).

5.4 Frameworks of the study

This section presents the theoretical and empirical frameworks from which the techniques of analysis are derived. Section 5.4.1 models IIAs in a game-theoretic framework while section 5.4.2 presents the empirical framework of the study which is grounded in the generalised methods of moments.

Generally, property rights theory takes primacy in its analytical strategy. As cited in Obeng-Odoom (2018), Hardin (1968) opined that common property is bound to fail because of its overuse by commoners. Although Obeng-Odoom (2020) takes a disparate position that commoning property can lay the foundation for inclusive growth, the current study on the role of IIAs on foreign investment activities in Africa is grounded on the hypothesis that privatisation of the commons drives efficiency in the management of assets. By delineating property rights and designing strategies to restrict governments from interference in markets, multinational enterprises are better able to pursue their self-interests by locating investments in areas with the least cost. Therefore, the state through its institutions can only provide the necessary conditions for investments by invigorating and committing to the protection of property rights and business freedoms (Dutt, 2011). In doing so, transactions cost which include, among others, information cost and cost of negotiating contracts are substantially reduced to the benefit of investors (Obeng-Odoom, 2013).

5.4.1 A game-theoretic framework of BITs

5.4.1.1 Introduction

Theories of FDI are currently underdeveloped and difficult to employ as theoretical frameworks due to challenges in quantifying any single one in an empirical analysis. However, a review of FDI/trade theories in Chapter 2 illuminated the nature of trade protection and processes that lead

to their formation. Basically, trade policies are not permanent initiatives and this is partly due to the dynamic nature of country's interests, which also depends very much on their production structures and levels of economic development (Taşbaşı, 2017).

The current study is basically on the relevance of a policy initiative in which participants can choose to engage or abstain based on projected benefits. The choice could be between signing a bilateral investment treaty with another nation or joining a multilateral initiative such as the AGOA, WTO and even regional economic blocks. Sometimes, after signing treaties, countries may still decline from ratifying based on the changing dynamics. Furthermore, there are extreme cases of the termination of treaties after ratification, maybe after investments have been sunk. The rising numbers of international investment disputes also explain why treaty signing requires scrutiny. These can be modelled as a form of strategic interaction in a game-theoretic framework.

Basically, IIAs may be regarded as dynamic processes of strategic decision-making between countries with the aim of maximising their individual welfare functions. Specifically, trade negotiations are games played according to mercantilist rules in which an increase in exports, *ceteris paribus*, is perceived as victory and an increase in imports is seen as defeat. Therefore, countries come to the negotiation table with the aim to minimise imports and maximise exports (Krugman, 1997). In the case of FDI, however, an increase in inflows is perceived as a victory. It is uncommon to find the incorporation of these complex theoretical approaches in routine investment policy analysis. For instance, issues of imperfect competition and strategic policy interactions within GATT/WTO can yield insightful outcomes if a game-theoretic framework is employed (Abbott & Kallio, 1996).

Generally, developing countries face a challenge with mobilising domestic capital that can enhance a long-term path to sustainable development finance. A possible solution is always to attract foreign capital through FDI, which from investors' perspectives, is plagued with many uncertainties (i.e. future tax policies, expropriation risk). However, foreign investors are always aware of the kinds of risks and sources of uncertainties surrounding investments in foreign nations and generally require some enforceable assurance that their investments would be safe. Since developing countries understand that such challenges can cause investments to be diverted to other nations, it motivates them to be interested in signing BITs in order to fill this gap and finance investment projects from abroad.

These assurances are often in the form of bilateral or multilateral agreements (Griebeler & Wagner, 2017), and can have spillover benefits on other foreign investors that transcend the originally targeted country. The existence of such a policy signals a show of commitment by the host country to cooperate in maintaining a good institutional or business environment or readiness to take responsibility for damages that may be caused by a change in its own policies. Thomas and Worrall (1994) argued that such agreements may even be self-enforcing if countries anticipate to have mutual benefits in the future that may be jeopardised by failure to commit.

During trade negotiations, the traditional approach is to compare a country's welfare under the existing structure of protection (e.g. a unilateral policy) with that under some alternative structures such as a bilateral or multilateral agreement (Harrison & Rutstrom, 1991). These agreements are a series of decisions controlled by interests of participants and expectations of other party's best response policies (Stuhlmacher & Stevenson, 1997). Bilateral and multilateral trade negotiations are a form of cooperative games that permit communications and enforceable agreements between trading nations through courts (Harsanyi & Selten, 1988). They permit trading nations to reconcile their policies which is usually characterised by a reduction of tariff and non-tariff barriers as concessions to other countries (for those exclusively on trade). However, there is always a possibility of hidden or asymmetric information, since negotiations are driven by private objectives and the international system does not have any police that can enforce them.

It is well known that before investments, governments' optimal policy is always to promise good protection for such foreign investments. This eventually changes into expropriation or rent seeking after investments have been made. Aisbett (2007) calls it the case of dynamic inconsistencies in the host's optimal policy, which is known by both governments and investors. Since this perception is under government's control, they can use domestic investment policies or IIAs to *signal* their willingness to be foreign-capital-friendly or increase investors' confidence (Griebeler & Wagner, 2017). Apparently, negotiating BITs is the most common way governments use to achieve this objective, which is rooted in the theory of games. Therefore, the application of game theory is necessary for a deeper understanding of such strategic interactions.

Negotiating to trade with other nations has both costs and benefits. It can lead to cheap imports which improve consumer welfare, but cause unemployment and sometimes shutdown in some industries, resulting in complete reliance on trading partners mostly in lower-income nations. In the case of FDI, it can lead to total dependence on foreign investors, especially if the investments are related to host country strategic sectors and sensitive to their national interest, which investors can use as a leverage. In the case of developing countries, failing to properly negotiate an investment agreement may incur costs such as diversion of investment, depending on the country to other competitive destinations, which offer comparable conditions but provide certainty through the establishment of an investment agreement.

However, high-income countries often capitalise on benefits of liberalisation by stressing on gains from increased exports that can exceed losses from imports. The process of bargaining to internalise costs of welfare losses due to tariff reductions can be modelled as a dynamic game between two or more countries, with each having pay-offs that are a function of the negotiated structure of protection (Baldwin & Clarke, 1987).

In order to analyse an IIA as a game, it is necessary to understand that what precedes the decision to negotiate BITs is often a unilateral investment or domestic policies that result in an *investment dilemma*. This is because countries try to shift cost (e.g. welfare finance through taxes) to each

other resulting in retaliations and, subsequently, trade wars. From an investor's perspective, this is seen as a less conducive investment climate that cannot guarantee success. Now, both nations are bound to cooperate since defecting has resulted in externalities that can only be internalised by mutual cooperation. In practice, developed countries generally have more leverage over developing countries since they have the necessary finances and technology required for investment. However, this simple model assumes that countries negotiating a trade deal are equally powerful and do so based only on standard rules.

5.4.1.2 Defining the game

The simple dynamic framework here is adopted from that proposed by Aisbett (2007) with two major participants, i.e., the host government and the foreign investor (monopolist). Its' primary aim is to serve as motivation for the empirical model used in the analysis. Although BITs are usually signed by governments, only MNEs in the source nations are responsible for carrying out investments. Therefore, reducing the analysis between the host government and the foreign investor can still retain its value, despite the facts that such agreements are usually signed between governments.

The strategic form of games is defined by exhibiting a set of countries $N = \{1, 2, 3, \dots, n\}$. Each country i has a set of strategies S_i from which it can choose an action $s_i \in S_i$ and receive utility, $U_i(s)$; if a given combination of strategies is chosen, where $s = (s_1, s_2, s_3, \dots, s_n) \in S = \prod_{i=1}^n S_i$. This is based on the assumption that payoffs are known and countries act rationally, i.e., each country dynamically chooses actions that maximises utility given its subjective beliefs about the other party (Varian, 1992; Tian, 2008). The question now is, how should a nation aiming to maximise its welfare negotiate a BIT with another that is also a rational utility maximiser?

This game is organised in three phases. Accordingly, the host government takes the first move by deciding whether or not to participate in a BIT given its stock of past and current investments. This is followed by a calculated response from the foreign investor on whether or not to invest in the host's country. It ends in the third phase when the host government decides on whether or not to expropriate the investment. Although the game could be extended into the future to examine the ramifications of government's choices and counter moves taken by investors in cases requiring arbitration, this short-run analysis can sufficiently signal future patterns of FDI attraction and how government's actions mediate with the investment climate to attract FDI. The stages of the game are enumerated below:

1. Step 1: Government decides to participate in a BIT

Based on the expected payoffs and the present stock of investments, the host must decide whether to sign a BIT or not. In doing this, the government compares the expected benefits from new investments against cost. There are existing investments from which the host receives taxes (τ), and the host understands that signing the BIT implies the investor will be redeemed

completely in the event of any expropriation, not only for new investments but also for future ones. Participating in the BIT implies that the host will receive a tax rate t , if the investors decide to invest. These are taken into consideration alongside the expected stream of investments in the absence/presence of such BITs. Should the host expect investments to still flow without a BIT, it would be optimal to avoid engaging into such treaties.

2. Step 2: The foreign investor makes an investment decision

In the second phase of this game, the investor has to decide whether to invest in the host country or not. The investment requires sunk cost of $K < 1$ and the investor's choice depends on known (revealed) information from the governments choices. Supposing that the government signed the BIT in step 1, the decision to invest will still depend on future moves by the government to expropriate such investments and whether the BIT has been ratified or not.

3. Step 3: The Government makes an expropriation decision

In period 3, the host now decides whether to expropriate the investments or not based on revealed salvage or residual values, (r) and ρ , where r represent residual values for new investments and ρ is the residual values for the existing stock of investments. These values are drawn from a random distribution $f(\cdot)$ which has as lower boundary zero and upper boundary, R ; and is known by both participants. If the government decides not to expropriate, it would receive taxes (t) from the new investments while the investor receives revenue $1 - t - K$. This is similar for existing stocks of investments in which the government would be receiving revenue from taxes amounting S_t , if they do not expropriate.

If the host government chooses to expropriate the investments, the payoffs will depend on whether the treaty has been ratified or not. Supposing that the treaty was ratified and new investments later expropriated, the foreign investor will receive full compensation worth the same amount, if investments had not been expropriated (i.e., $1 - t - K$). However, the government, on the other hand, will be losing all residual benefits from the investments worth $r - (1 - t)$. Similarly, the government will also have to compensate for existing investments in which the investors receive $\rho - S_t$ while the government will be losing $\rho - (1 - S_t)$.

The very process can be followed to establish payoffs when the treaties have not been signed. Accordingly, the host government will only be interested in expropriation if the benefits exceed income from taxes (i.e., $r > t$). Therefore, given utility from the residual values ($U[0, R]$), Aisbett (2007) presented the following probability of no expropriation:

$$p_N = \begin{cases} \frac{t}{R}, & \forall t < R \\ 1, & \forall t \geq R \end{cases} \quad (5.1)$$

Aisbett further shows the payoffs to a host governments that fails to ratify investments and as a consequence, does not receive foreign investments to be equal to:

$$U_{NoBIT} = \frac{S}{2R}(R^2 + \tau^2) \quad (5.2)$$

Similarly, the new investor's expected payoff when a host government fails to ratify the BIT is shown to be:

$$V_{NI} = \frac{t(1-t)}{R} - K \quad (5.3)$$

If it is assumed that residual values from investment are less than revenues when in the hands of the investors, the compensation required from the host government in the event that the BIT is ratified will restrict it from ever expropriating the investments. Therefore, payoffs to the host that ratifies and receive the investments would be $U_{BI} = t + S_\tau$ and $U_{BO} = S_\tau$ if investments are not made in the country.

The game identifies the distribution of possible residual values that the host obtains if it expropriates an investment. This measure captures the investment climate variables of the host. The size of the potential new investment relative to the existing stock and the host's probability of expropriating are two main determinants of benefits to the host of participating in a BIT with the source country. Therefore, given the size of the current investments, an increase in the size of potential investments will increase the probability of a host participating in a BIT.

Furthermore, changes in hosts' investment climate also alternate the probability that it participates in a BIT. A host who anticipates that it will receive more investments even if it does not sign a BIT will have less incentive to participate in one. Therefore, host nations will typically think at the margin, weighting the cost of every commitment against extra benefits from new investment before venturing into the treaty. This component of the model basically separates hosts based on whether they are investment-friendly or not, which effectively captures the investment climate of the host country.

The game also identifies three types of hosts. These included those with low residual values of expropriated FDI. These ones can attract investments without BITS due to their low probability of expropriation. Type B hosts are those with medium residual values of expropriation. This type of host has a high incentive to expropriate that foreign investors will not invest in the absence of a treaty, irrespective of the tax rate. Type C are those with very high incentives to expropriate that they would not accept to ratify a BIT. Consequently, only hosts with medium probability of expropriation will likely participate in a BIT. The game further identifies circumstances that can motivate a potential investor to engage in foreign investments. This choice is based on expected revenue or residual benefits from investing in the host country.

To summarise, given the stock of present investments, an increase in the potential of new investments flowing into the country increases the probability that a host nation would participate in a BIT. Any econometric analysis must therefore consider the possibility of reverse causality in order not to overestimate the effect of a BIT. Secondly, the decision to participate in an investment treaty significantly depends on previous or existing investments in the nation. Therefore, estimating a static model of investment cannot account for this dynamic component since its flows adjust with previous ones. Thirdly, changes in the domestic investment climate of the host will alternate its probability of participation. Therefore, some previous results on the impact of BITs on FDI may have suffered from omitted variable bias. Estimating the true effects of BITs should appropriately account for both the institutional and business climate of the host nations (Aisbett, 2007). Besides these major points, the game-theoretic model retains the ability to factor in other traditional determinants of FDI.

5.5 Empirical framework

The empirical model in this study is derived from previous studies that include Mileva (2007); Anyanwu and Yameogo (2015); Bhasin and Manocha (2016), Adeleye, Osabuohien and Bowale (2017); Ullah *et al.* (2018) and Green (2018). It employs a dynamic panel data model to estimate the impact of international investment agreements on FDI in Africa. The dynamic model can be specified as shown in equation 5.4:

$$\begin{aligned}
 FDI_{it} &= \alpha_i + \delta_i FDI_{it-1} + \beta_i IAs_{it} + \gamma_i x_{it} + \vartheta_i z_{it} + \omega_{it} \\
 \omega_{it} &= \eta_i + \mu_{it}, t = 1, \dots, T, i = 1, \dots, N \\
 E[\mu_{it} | icr_{i1}, \dots, icr_{iT}, z_{it}, \eta_i] &= 0
 \end{aligned} \tag{5.4}$$

From equation 5.4, i refers to the country or number of cross sections and t denotes the period under consideration. FDI_{it} is the value of FDI stocks, FDI_{it-1} is a lagged dependent variable, which shows the dynamic nature of the model and illustrates the interdependence of FDI over time. The z_{it} matrix represents a set of instrumental variables that are orthogonal to residuals while x_{it} represents control variables in the model. Table 5.1 presents detailed information on variables and their expected signs. Unobserved country-specific fixed effects and idiosyncratic shocks are accounted for by η_i and μ_{it} respectively, which are orthogonal components. The most common methods used to estimate such panel regression data are the fixed and random effect models. These models rely highly on the unrealistic assumption of strict exogeneity, no serial correlation and the absence of heteroscedasticity to provide consistent estimates of the parameters.

However, the introduction of FDI_{it-1} in equation 5.4, presupposes the possibility of endogeneity and autocorrelation. Therefore, estimating such a model using OLS can result in biased, albeit

consistent estimates of the parameters. Similarly, estimating the model using a static panel data model may not produce efficient results. In situations where these fundamental assumptions fail, GMM provides more consistent, asymptotically normal and efficient parameter estimates than traditional moments estimators such as OLS, fixed/random effect models and two-stage least squares (2SLS) (White, 2000).

Although empirical evidence has shown that the GMM model and 2SLS yield similar results, Wooldridge (2001, 2010) argues that it theoretically offers greater precision. The GMM is therefore recommended because it controls for endogeneity bias in the parameters of a lagged dependent variable in a dynamic panel data model. It also controls for omitted variable bias, unobserved panel heterogeneity and measurement errors in the data (Hansen, 1982; Newey & West, 1987; White, 2000). Empirically, either the difference GMM or the systems GMM can be used in the estimation. Both methods work well when variables in the equation exhibit a random walk and there is no autocorrelation of residuals.

In order to deal with short time periods and large country dimensions, the difference GMM is often employed because it uses first differences in its transformation as shown in equation 5.5. The idea is that differencing removes country specific effects since they do not vary with time. The danger in differencing, however, is that it may lead to significant loss of information.

$$\begin{aligned}\Delta fdi_{it} &= \alpha_i + \delta_i \Delta fdi_{it-1} + \beta_i \Delta IIAs_{it} + \gamma_i x_{it} + \vartheta_i \Delta z_{it} + \Delta \omega_{it} \\ \omega_{it} - \omega_{it-1} &= \eta_i - \eta_i + \mu_{it} - \mu_{it-1} = 0\end{aligned}\tag{5.5}$$

The difference GMM was designed for models with small time periods and large cross-sections. A practical challenge in applying this method lies in choosing the number of moment conditions. Wooldridge (2001) posits that two researchers will generally choose different moment conditions, a procedure that opens one's research to criticisms in search for different ones. He further cautions that GMM may also suffer from finite sample problems when researchers add more moment conditions that add less information.

Furthermore, it is conventionally expected that as $T \rightarrow \infty$, $\omega_{it} \approx 0$, and the correlation between the lagged dependent variable and the disturbance term also become insignificant hence no need for the difference GMM. However, lagging variables often result in poor instruments after taking first differences. Literature has shown that using the two systems GMM can improve efficiency of the results, since it reduces potential bias and imprecision associated with a simple first-difference GMM estimator (Nayan, Kadir, Ahmad, & Abdullah, 2013). Nonetheless, a major empirical challenge with this method is that it is often difficult to find appropriate instruments that are completely correlated with the endogenous regressors, resulting in weak instruments. Similarly, the model is generally presumed not to work well with long time periods and small groups as it often results in the problem of overidentification. However, recent work by Hayakawa (2015) has found support for the use of systems GMM when both N and T are larger. `xtabond` has been

recommended for longer panels, while `xtabond2` is better for shorter panels given that it incorporates instruments in levels, reducing the loss of information (Barajas, Chami, & Yousefi, 2013).

5.6 Models and estimation techniques

5.6.1 Econometric models

The following models were estimated during our data analysis in order to achieve the specified objectives. One of the intended outcomes of this study is to contribute towards an understanding of what informs the propensity of African countries to enter into investment agreements. This has an immediate policy relevance for countries that want to increase the inflow of FDI, because it will help them ascertain whether to engage in an investment treaty or consider alternative options. It is motivated by Swenson (2005), Elkins *et al.* (2006), Rosendorff and Shin (2012), Jandhyala, Henisz, & Mansfield (2011) and Arias, Hollyer and Rosendorff (2018). To attain this objective, this study estimates equation 5.6 below.

$$BITS_{it} = \gamma_t + \beta x_{it} + \mu_{it} \quad (5.6)$$

Where $\gamma_t = \beta_0 + \delta_2 W_t$, W_t denotes time heterogeneity, μ_{it} represents the idiosyncratic error term and x_{it} covers other explanatory variables that determine the probability that a nation will sign a treaty. Equation 5.6 is a one-way error component model that can be estimated with a fixed/random effect procedure. In this estimation, the main variables examined include those relating to investment climate such as economic freedom, democracy, autocracy and corruption. We also included traditoinal variables such as competitiveness (share of FDI into the continent), market size, terms of trade, corruption and trade openness. We used similar variables as in Swenson (2005) and Elkins, Guzman and Simmons (2006), who did a similar study, but added more variables to capture the specific experiences of African countries.

In our second specification, we estimated the determinants of FDI in Africa with IIAs as the main variable using the two-step systems generalised method of the moments. The model is preferred because of its additional advantage of accepting dummy variables in the estimation. The model is informed by those in previous studies such as Tobin and Rose-Ackerman (2011) and Bhasin and Manocha (2016). During the estimations, we started with a general model and gradually nested down until the best estimates were produced. The dynamic panel data model is specified in equation 5.7.

$$FDI_{it} = \beta_0 + \beta_1 FDI_{it-1} + \beta_2 IIAs_{it} + \beta_3 X_{it} + \beta_4 Z_{it} + \omega_{it} \quad (5.7)$$

Where ω_{it} represents the error terms. This is the main model of our study. The dependent variable, FDI_{it} , is measured as aggregate FDI, X_{it} represent a vector of endogenous covariates, while Z_{it} is a vector of exogenous covariates. IIAs in equation 5.7 are composed of either the

cummulative number of BITs or a TIP, depending on the model under investigation. Separate estimates were run for cummulative number of BITs, the effectiveness of specific BITs with some countries that were entered as dummies and TIPs that were similarly entered as dummies.

The third objective aimed to examine the impact of the investment climate and its mediating role with other macroeconomic and political factors on FDI in Africa. This was realised by estimating the impact of investment climate variables and further creating interactive variables between IIAs and market size, natural resource rents, democracy, autocracy, corruption and economic freedom. The model is specified in equation 5.8. The analysis took full advantage of Stata's interactive commands.

$$FDI_{it} = \beta_0 + \beta_1 FDI_{-1} + \beta_2 IIAs + \beta_2 IIAs \# M_{it} + \beta_3 X_{it} + \beta_4 Z_{it} + \omega_{it} \quad (5.8)$$

In equation 5.8, all variables remain as previously defined. However, $IIAs \# M_{it}$ represents the introduction of interactive terms, where M is an investment climate variable. In the analysis, a general model of the effects of various investment climate variables is run to ascertain its effect on FDI before interacting the variable with either BITs or TIPs. During the analysis, we employed both static and dynamic approaches. Firstly, the model was estimated using the fixed/random effect models and finally, the systems generalised method of moments. These multiple estimations check for reliability and consistency of the estimated parameters in order to arrive at best estimates. However, only the two-step systems GMM results were presented in the final analysis.

The interpretation of interactive variables follows from Braumoeller (2004), who presents sufficient evidence to support the notion that the statistical significance of lower-order coefficients becomes less important in the presence of interactive factors. Consequently, a model with three factors such as $y = b_0 + b_1 x_1 + b_2 x_2 + b_{12} x_1 x_2$ only makes sense where focus is on the coefficient of $b_{12} x_1 x_2$ during interpretation. This is because b_{12} captures the joint impact of $x_1 x_2$ when $x_1 = x_2 = 0$. Therefore, lower-order interactive term coefficients may be ignored during interpretation since their quantifiers are not always of any direct interest in most hypothesis tests. This is because an independent interpretation of either x_1 or x_2 can only hold for a subset of the cases and cannot be generalised. However, the introduction of more control variables in the estimation usually compounds the complex models.

➤ Model requirements

One obstacle with dynamic panel analysis lies in choosing an appropriate number of cross-sections(n) and time (t), for which its definition in the literature as small t and large n is ambiguous. Some researchers have suggested that for the number of cross-sections to be suitable, $n > 100$ and $t \leq 15$ with the ideal being $t < 10$. However, the random and fixed effect models work well when $t \leq 20$ and having a large sample. In most instances, researchers face a multiplicity of

challenges when estimating dynamic panels with $n < 100$ and $t > 15$ due to panel data structure and the way the system generates instrumental variables in the GMM approach (Labra & Torrecillas, 2018). However, more recent simulations have shown that the GMM method can still produce efficient parameter estimates with large N and T (Hayakawa, 2015). The sample in this study is more than twice the size of the time period and we provide sufficient evidence that our estimated models were consistent and efficient.

➤ **Endogeneity of investment agreements**

Apparently, the problem of endogeneity has remained one of the greatest challenges in empirical analysis of the impact of investment treaties on FDI. Researchers have typically approached the problem of endogeneity in different ways, which now constitute a major criticism for previous studies that relied on the predictive power of static models such as fixed and random effects. According to Tobin and Rose-Ackerman (2011), there is a possibility that host countries might engage in BITs with source countries that already have substantial FDI flows. Should such a precedence exist, the effect on investment might be different compared to those that did not have prior investments. Generally, BITs are more likely to be established between countries with greater investment potentials (Jandhyala, Henisz, & Mansfield, 2011). Equation 5.4 shows that there is a need to address the possibility of reverse causality, i.e. while an increase in the number of BITs is expected to increase FDI, an increase in the stock of FDI in a country could also increase the probability that a BIT will be signed, which implies high correlation between the two variables over time.

This is usually handled in GMM by using exogenous instrumental variables, which is challenging for most applications with BITs. Generally, any valid instrument must meet the restriction criteria of having a strong correlation with the endogenous regressor but not the dependent variable. Aisbett (2007) opined that BITs by their nature are exogenous *ex post*. This is because once it has been signed, it cannot be more or less in place for at least 10 years, implying that endogeneity can be addressed by controlling for BITs adoption (for studies entering BITs as dummies).

Furthermore, although BITs have accounted for the leap in FDI into developing countries, there is a risk of obtaining statistically significant results for two upward trending variables which is, in fact spurious. Although micro-panels, as in this case, are less likely to be characterised by spurious regressions, this is often handled in econometric estimations by including year dummies in the panel regression to mitigate potential spuriousness of the results. This was dealt with by creating year dummies. In the estimation, the inclusion of time fixed effects (host-year dummies) also controls for features of the investment climate and hosts' FDI regimes that are either unobserved or observed without accuracy. Similar to the work of Vaisey and Miles (2017), we include lagged values of BITs as instruments in our models.

Another way to control for endogeneity is to correct for autocorrelation. Generally, the presence of autocorrelation does not lead to inconsistent estimates of the parameters when right-hand-side variables (RHS) are strictly exogenous. However, when RHS variables fail to meet this criterion, existing bias will be exacerbated. Typically, when an increase in FDI leads to the formation of a BIT, a positive shock to FDI may increase the probability that a BIT will be formed in the subsequent year (Aisbett, 2007). Therefore, correcting for autocorrelation ensures that a BIT dummy does not capture the omitted effect of serial correlation in the stochastic term. This was the case for estimations of the effects of BITs with top FDI investors that were coded as dummies in our models and also multilateral agreements such as EU treaties, WTO membership and AGOA membership.

➤ **Endogeneity of investment climate**

In our models on the impact of institutions and the economic freedom on FDIs, the possibility of endogeneity was also established since they could be endogenous to FDI. Specifically, Bénassy-Quéré, Coupet and Mayer (2007) argued that economic openness could happen as a response to pressure from MNEs for reforms that improve the investment climate to be made. The case of structural adjustment programmes is a classic one.

Structural reforms¹⁰, initiated through the structural adjustment programmes were a set of free-market policy reforms that were imposed on developing countries by the Bretton Woods institutions (World Bank & the IMF) as an indispensable prerequisite for receipt of loans. Their overarching goal was to foster FDI flows from foreign companies within the OECD countries to certain sectors of target economies. They also aimed to enhance productivity by sweeping away all impediments to the functioning of the supply side of the economy. As a consequence, developing countries had to reduce monopoly power, privatise state assets, reduce regulations and red tape, remove licensing, enforce property rights and other impediments on free entry into the markets (Rodrik, 2017). It is clear that such openness had some influence on the inflow of FDI. Therefore, instrumenting for investment climate is necessary to arrive at efficient parameter estimates.

Previous studies by Mauro (1995), Hall and Jones (1999) and Acemoglu *et al.* (2001) used longitudes and latitudes as instruments because they tend to correlate with many institutional variables but have no direct influence on bilateral FDI. Bénassy-Quéré (2007) similarly utilized the number of religions and also included a dummy for monotheism to measure the level of ethnic and social fragmentation in the population. They argued that these measures should have a negative impact on institutions. Furthermore, some other studies have also employed landlockness although this status may be a source of hindrance to FDI since it increases export

¹⁰ Structural reforms tackle obstacles to the fundamental drivers of growth by liberalising labour, product and service markets, thereby encouraging job creation and investment and improving productivity.

costs. Finally, Green (2018) used the spatial lags of Polity scores as valid instruments for the quality of institutions.

However, one thing in common with these studies is that none presented the outcome of their Sargan and Hansen's tests for exogeneity of instrument subset statistics to justify their validity, leaving some scepticism on their accuracy. Roodman (2009) cautioned that researchers should not take pride in Hansen p-values below 0.1 and those above 0.25 should also be seen as a sign of trouble with the model. Furthermore, he also emphasised the necessity to present instruments. We do not assume the existence of better instruments outside the present dataset. Therefore, all instruments were internal and based on the lags of our explanatory variables at every stage of the estimation. In this study, we use the lags of democracy, autocracy and economic freedom as instruments of investment climate variables with the collapse and orthogonality options. The first lag of FDI was also utilised as an endogenous variable with the collapse option.

➤ **Model diagnostics**

Just such as in any time series analysis, the reliability, consistency and efficiency of any results from panel data analysis are a function of the system's ability to meet basic expectations. To this end, basic assumptions common in time series analysis such as stationarity, heteroscedasticity, cross-sectional dependence and autocorrelation are fundamental tests that were performed before the regression (Wooldridge, 2010). However, when working with micro-panels, the central limit theorem ensures that the distribution of the stochastic term turns to normal.

Specific tests to panel analysis such as time-fixed effects were performed using the Wald joint test on time dummies before arriving at the decision to include year dummies. Cross-sectional dependence becomes a serious problem when T is large and adjusting for standard errors can resolve it. Its null hypothesis is that residuals are not correlated across units. The Pesaran test is the most common approach to test for cross-sectional dependence. However, it is based on stringent assumptions and the presence of missing data in this panel made it impossible to perform the test.

We also performed the panel unit root test to determine the order of integration for all variables in our models using a mixed-up strategy approach (Fowowe, 2011). Panel unit root tests are based on the AR (1) process in the following equation.

$$y_{it} = \mu_i + \gamma_i t + \rho_i y_{it-1} + \varepsilon_{it} \quad (5.9)$$

Where $t = 1, \dots, T$ is the time period and $i = 1, \dots, N$ is the number of cross-sections, γ_i is the individual trend, μ_i represents the entity or country-specific fixed effects, ρ_i is the autoregressive parameter = 1 when there is a unit root and ε_{it} is the idiosyncratic error. There are two types of panel unit tests for stationarity, i.e. those assuming that ρ_i is constant across entities (homogenous) and those that assume that ρ_i varies across included entities (heterogeneous).

Homogenous panel tests for stationarity pool all cross-sections together and test them as a single entity. Also known as the first generation tests, the most commonly used is the *Levin-Lin-Chu Test* and it assumes homogeneity across panels. The reason for adopting the test is because all African countries still face a similar challenge of underdevelopment, which is characterised by poor growth and other socio-political challenges. Results from the Levin-Lin-Chu test were similar to those from the Breitung test, which is theoretically, an improvement to the former one.

On the other hand, heterogeneous panel tests for unit root or second generation tests allow for differences in panels (i.e. different unit roots), but never tell which countries have different unit roots. The reason why a heterogeneous test for unit root was adopted was because African countries are grouped into different economic blocks that have different characteristics. The *Im, Pesaran and Shin (IPS)* test is the most common for panels assuming heterogeneity and was also used in this study (Nagayasu, 2002). It accepts an unbalanced panel, but there should be no missing data points in each individual time series.

The null hypothesis for both tests assumes the existence of unit root across the cross-sections while the alternate depends on whether the autoregressive parameter is assumed to be constant or varies. For instance, in the *Levin-Lin-Chu test*, the alternate hypothesis assumes that all panels are stationary while in the *IPS tests*, the alternate hypothesis only assumes stationarity for *some cross-sections*. It is necessary for all variables to have the same order of integration and GMM estimates are efficient when variables are estimated at levels. Because panel unit root tests are a precursor to panel cointegration, it is shown in Chapter 6 that all variables, except exchange rate, were stationary at levels, and therefore, no need for any cointegration test, since the first difference of exchange rate was stationary at levels. Finally, the presence of heteroscedasticity (group-wise) was verified in GRETL prior to using robust standard errors in the final estimation. Arellano's method was used to correct for heteroscedasticity.

In the two-step systems GMM analysis, we test for possible misspecification of our models. Although standard errors in GMM are more robust to model specification than maximum likelihood because they require less information, this is believed to only happen when the sample size turns to infinity (Arellano & Bover, 1995; Blundell & Bond, 1998). In practice, however, they are often biased and it is prudent to test for misspecification. Monte Carlo simulations have established that properties of the GMM tend to be substantially different in a misspecified model and can result in misleading inference. The Sargan-Hansen J-test was employed to test for over-identifying restrictions or overall validity of instruments. It assumes that all instruments as a group are exogenous.

Similarly, Arellano and Bond's (1991) tests were utilised to verify the null hypothesis that errors are not serially correlated particularly at the second order (AR2). Failure to reject both null hypotheses supports the model, since higher p-values are a lynchpin of valid results in all applications involving GMM (Adeleye *et al.* 2017; Roodman, 2009). This approach is also known

to work for both heteroscedasticity and serial correlation. Finally, we ensured that the p-values of the Hansen and Sargan tests were within the recommended range in Roodman (2009), i.e., $1 \leq P \leq 2.5$ by using valid instruments. These tests were necessary to control for the proliferation of instruments, which can result in overidentification of the model. Results from the variance inflation factor showed that there was no multicollinearity in the data. All econometric analysis were performed concurrently in STATA version 16.0 and GRETL.

5.7 Definition of variables and hypotheses

As noted in the literature, most empirical studies on the determinants of FDI into Africa arrive at a common conclusion that it is mostly driven by natural resources and market size. This is consistent with available data and can also be observed from the fact that the largest recipients of FDI, such as Egypt, Nigeria, Angola, South Africa seem to possess either or all of these characteristics. Besides these key variables used as controls, we operationalise all other variables that were employed to realise the study. These are elucidated in the following subsections.

5.7.1 Dependent variable

i. Foreign direct investment stock

The dependent variable used in this study is the annual stock of FDI. Empirical studies always pay less attention to the quality and importance of their measure of FDI, although there is no generally accepted measure. Most quantitative studies tend to use either FDI inflows or FDI stocks as their dependent variable. Bonnitcha (2017) opined that the quality of FDI stock is often very weak. Accordingly, Fujita (2008) had reported that only about 100 economies reported their data on inward FDI stocks with significant variations in their methods of evaluation.

This makes most empirical studies to prefer inward FDI flow due to its reliability, although it could also bias results if errors in FDI data significantly correlate with country characteristics. Beugelsdijk *et al.* (2010), however, noted that data on FDI inflow do not capture the value of investments in host countries financed from domestic banks through loans, which can underestimate its volume. This further raises issues as to which investments fall under the protection of investment treaties. In principle, data on FDI stocks should be preferred to that of inflows because it can more closely capture the value of foreign-owned assets in a country and corresponding with the value of investments covered by an investment treaty. Practically, most FDI inflows in African countries are still very low and often have very large negative values, which implies that foreign investments flow into and out of the country. Modelling these negative values can be very problematic in empirical applications since researchers either have to transform the data or deal with large missing values. Data transformation introduces a completely new scenario with its own challenges in a panel setting that is not fully developed. This explains our choice of FDI stocks in this study, as in Haftel (2010) to avoid injecting newer econometric issues into our dataset.

Furthermore, while most studies use FDI as a percentage of gross domestic product, Rose-Ackerman and Tobin (2005), Walter and Frenkel (2016) and Neumayer and Spess (2005) argued that such a measure encapsulates changes in the relative significance of FDI in the economy and not changes in direct investments. The argument seems plausible and a similar procedure was employed in this study. Therefore, our study utilises aggregate stocks of FDI in millions of US dollars. This procedure reflects a true measure of the activities of multinational enterprises in African countries. Our measure of the dependent variable with FDI stocks here follows from Neumayer and Spess (2005), Wacker (2016), and Frenkel and Walter (2019).

Although it could have been insightful to examine changes in FDI between the host-source pairs after ratification of treaties, data limitations and missing observations for several years were a serious impediment. This is further supported by Busse, Königer and Nunnenkamp (2010), who argued that dyadic analysis may underestimate the effects of BITs since it fails to account for the effect of signals they create to other investors. Furthermore, the aggregate effect on FDI from other friendly nations besides those engaged in the bilateral agreement is usually enormous. This was shown in Chapter 4 where FDI as a percentage of GDP increased to more than 5 per cent in 2007 from less than 1 per cent in the 1990s, as the number of BITs increased from 460 to 2827. On the basis of the above, this study settled for the use of FDI stock as a measure that can paint a good picture of the effectiveness of IIAs and its signalling role on other foreign investors in Africa.

ii. Bilateral investment treaties

The primary independent variable used is the presence of BITs. Firstly, it was measured using the cumulative number of existing BITs that each of the sampled countries had signed within the period of study. The cumulative number of BITs had earlier been used in influential studies by Rose-Ackerman and Tobin (2005) and Neumayer and Spess (2005). Secondly, the study also investigated the effects of some specific BITs on aggregate FDI into Africa. Interest was specifically directed to existing BITs between African countries and the top five investors on the continent. According to the 2019 World Investment Report, these include France, the Netherlands, the United States, The United Kingdom the Peoples' Republic of China. South Africa is the 6th largest investor in Africa and because of the growing importance in promoting intra-African trade, a dummy was also created to examine the importance of existing South African BITs with other African countries in attracting foreign direct investment.

So far, these are the largest foreign investors in Africa. The United Kingdom and France, for instance, still have strong economic and political ties with their former colonies. These translate into enormous bilateral trade and direct investments. The United States as the world economic power, is a natural candidate of FDI and has also contributed significantly to African development. Some studies even suggest that the presence of a US BIT is likely to have a strong spill-over

effect on other foreign investors. Finally, the role of Chinese investment has been in the spotlight in the international media as Chinese companies continue to spread across the continent at a faster rate than any other emerging economy. However, there is still limited evidence on whether BITs determine the direction of Chinese FDI. This study examines the role of Chinese BITs as an FDI enhancing mechanism in Africa, including a dummy variable if an African country has an existing BIT with China within the study period. Overall, BITs with top investing countries in Africa were entered as dummy variables, with 1 indicating the existence of a BIT between the above-mentioned countries and the sampled African counterpart. For instance, the United State and Rwanda ratified a BIT in 2012. Therefore, values of 0 were assigned for the years 2000 to 2011, and 1 for the periods 2012 to 2018. Several studies have similarly captured existing BITs as a dichotomous variable (Busse & Hefeker, 2007; Hallward-Driemeier, 2003; Salacuse & Sullivan, 2009; Aisbett, 2007).

Thirdly, the study also investigated the effect of intra-African BITs on aggregate FDI. Countries like South Africa, Egypt, Morocco and Nigeria have significant investments in other African countries, yet trade between African countries is still very little. This was necessary to cast more light on the necessity for the African Continental Free Trade Agreement which is gradually moving into its implementation phase. Perhaps, South Africa is the largest investor in other African countries. Therefore, the importance of South African BITs was examined to establish the potential of intra-African investments within the context of improving trade between African countries. Therefore, the following two hypothesis were formulated to guide the study

Hypothesis 1: *Bilateral investment treaties do not increase foreign investment activities in Africa.*

Hypothesis 2: *Signing BITs with top investing countries in Africa does not translate into increased foreign investment activities.*

iii. Treaties with investment provisions

The second type of IIAs examined in the study were treaties with investment provisions (TIPs). The study specifically examined the effectiveness of treaties with the European Union, Membership in the World Trade Organisation and preferential trade and investment agreements (PTIAs) such as the African Growth and Opportunity Act (AGOA). All these treaties are entered in the models as dummy variables with 1 indicating that the treaty has been ratified and 0 indicating non-existence of such a treaty.

Hypothesis 3: *Treaties with investment provisions do not enhance foreign direct investment activities in Africa.*

iv. Investment climate

Business opportunities as indicated in these classical economic variables are dominant drivers of FDIs. However, prominent features of investment climate such as effective institutions and,

perceived level of corruption are also indispensable and can attract foreign investors. According to a survey of almost 30000 FDI projects for which a location determinant was identified, Hornberger, Battat and Kusek (2011) concluded that the investment climate, proxied by business regulations and governments support was the third most significant determinant of FDI. Some empirical studies have found that, albeit lowering effective tax rates were positive correlates with inbound FDI, the effect was eight times stronger with a good investment climate (James, 2009). These studies, however, differ from what measure of business climate to adopt. While some consider the rate of capital formation to GDP as a measure of a country's investment climate (Çevis & Camurdan, 2007), others employ different dimensions of both political and economic risk (Dollar & Kraay, 2003; Sekkat & Veganzones-Varoudakis, 2007).

In this study, we adopt multiple measures. These include economic freedom index, democracy, autocracy, executive constraints and corruption perception index. The economic freedom index contains a rich database on business freedom, financial freedom, investment freedom and trade freedom. It basically measures the business climate in any country, while democracy and other institutional variables are measures of the political climate. Tchouassi (2014) had earlier employed similar variables to investigate the effect of investment climate on economic growth in Africa. Foreign investors are generally interested in countries with a high degree of economic freedom. In this study, we developed a composite index of economic freedom. The overall score of economic freedom was only used to verify for consistency.

Similarly, the effect of institutional quality was measured independently by a country's score on democracy, autocracy, executive constraints and level of corruption. They measure the political climate of host countries, which is an important signal for the investment climate in hosts' nations. These variables were also interacted with IIAs to examine whether they substitute or complement the investment climate. The expectation from corruption remains highly controversial in empirical studies. While it is generally expected that corruption should have a negative effect on FDI, most businesses may take advantage of weak and corrupt political institutions to navigate their way to investing in countries. Furthermore, countries such as India, Belgium and Italy are still relatively corrupt, yet attract significant amounts of FDI. We expect corruption as proxied by the corruption perception index from transparency international to have a negative effect on FDI. This is captured in our study/model through the formulation of the following hypothesis:

Hypothesis 4: *Business climate and political institutions do not influence foreign direct investment activities in Africa.*

5.7.2 Control variables

a) History of foreign direct investment

In order to examine the impact of IIAs on FDI, we controlled for fundamental economic and political indicators. These included FDI_{it-1} , the lag of our dependent variable. This variable represents the historical flow of FDI into the respective countries sampled for the study. The intuition behind lagging FDI is that new investors are often attracted to countries with existing foreign investments as their continuous presence, perhaps implying possibilities for business growth, a better investment climate, the countries commitment to international investment policies and protection of foreign investments in its territories. Therefore, we expect a positive association between the first lag of FDI and foreign investment activities in Africa.

b) Market size

Prospects for market growth and the degree of development are vital factors that attract market-seeking multinationals to establish factories in a country. This is in line with the principle of rationality, through which investors crave to locate their foreign plants in countries with favourable growth prospects, larger market size and economic development since they provide better opportunities to exploit their locational advantages and enjoy economies of scale. Some researchers even suggest the creation of economic blocks for small countries to expand their market potentials (Asiedu, 2005). Researchers, however, measure market size using different variables. While some see population growth rates as an indicator of market intensity that translates into a larger market, others measure market size using gross domestic product of the nation. In this study, we use GDP as our measure of present and potential market size, and expect a positive association with FDI.

c) Macroeconomic stability

Governments' fiscal balance, interest rates, and foreign exchange rates are often used as measures of economic health and stability of the host country. Countries with a sustainable and stable financial system, prudent fiscal policies, low inflation, devoid of both exchange and interest rate fluctuations are likely to attract more foreign investments (Strat, Davidescu(Alexandru), & Paul(Vass), 2015). This is rooted in the exchange rate theory of FDI. In this theory, it is hypothesised that countries with a cheaper exchange rate will attract more FDI than those with a more valuable currency. The study measures macroeconomic stability using the rate of inflation (real purchasing power parity) and real exchange rate. We expect countries with high levels of inflation to attract less FDI. Likewise, countries with less valued currencies are also expected to attract more FDI, as shown in the currency area theory of FDI. The study expects inflation and foreign exchange rates to be negatively associated with FDI activities in Africa.

d) Infrastructure

Infrastructure is an important factor in determining FDI irrespective of type. Most investors need good roads to transport their output, good information and telecommunication facilities. In economic theory, there are many types of infrastructure, including economic, social and financial infrastructure. Many studies, therefore employ different measures of infrastructure that can either be quantified in monetary or physical units. Measures include the number of telephone lines or internet subscribers, electricity consumption, numbers of electricity power production, as well as expenditures on road construction. Some authors, such as Asiedu (2004), suggested the use of gross fixed capital formation. She argues that it covers road construction, railways, schools and hospitals which makes it a comprehensive proxy for infrastructure. In all specifications, it is expected that countries with good infrastructural development should attract more FDI. In this study, we used a composite index of infrastructure that integrates both economic, social and financial infrastructures. We find this measure relevant within the African context due to data limitations in most cases. The role of infrastructure is expected to be a positive determinant of FDI activities in Africa.

e) Human capital

Human capital endowment and productivity are important drivers of innovation and development. One major channel of knowledge transfer and the acquisition of skills is through FDI. Research has shown that the stock of human capital available in a country may also attract FDI (Romer, 1986, 1990; Suliman & Mollick, 2009). Availability and high quality labour also show that a country is ready to benefit from technological and scientific progress since it can learn and adopt it faster. Although, within our current global context, labour shortages in one country can easily be replaced from another; Africa in particular still imposes many restrictions on labour mobility. Therefore, the size of the labour force in a country, its quality and cost are expected to have an attractive effect on FDI. Labour quality can be reflected in the level of academic attainment in the host nation, health and other human development indicators. Studies, however, differ on what measure of human capital to employ, although most of them tend to use secondary school enrollment. In this study, we use the number of secondary school enrollments in a country as our measure of human capital. We acknowledge that Africa's system of education is still poorly developed to the extent that the students who succeed to attain only secondary school education can hardly be considered real assets to the economy and creators of opportunities for growth and development. Therefore, the study expects human capital development to be a positive determinant of FDI activities in Africa.

f) Natural resources

Apparently, natural resources have been one of the most important determinants of FDI in Africa since independence and this is explained by the fact that over this period most of her direct investments have been made in the primary or resource sectors of African economies. Although this pattern is gradually changing, the natural resources sector still remains a major recipient of FDI moving into Africa.

Generally, countries with a great deal of more natural resources (especially fuel, precious metals and forest resources) tend to attract more FDI. In this study, mineral resource rents were employed as a measure of natural resources. Data were collected from the International Trade Centre. The study expects natural resources to be an important determinant of foreign direct investment activities in Africa.

g) Trade openness

The early post-independence period in Africa was characterised by trade restrictions as most countries perceived the inflow of FDI as another medium of controlling African economies. It wasn't for long that these economies started realising the benefits of attracting investments in the country, which required a more opened economy. In the late 1980s, most restrictions in African economies were gradually uplifted as a package from the structural adjustments and stabilisation programmes. These paved the way for the inflow of investments and technology from the rest of the world, that has enhanced production, efficiency and other advantages (Tahmad & Adow, 2018). Although the effect of trade openness has been generally inconsistent in most studies, a couple of them have found that it is positively associated with FDI activities (Busse et al., 2010; Liargovas & Skandalis, 2012; Tahmad & Adow, 2018; Cherif & Dreger, 2018). Therefore, we expect trade openness to be a positive determinant of FDI in Africa, and it is measured as a percentage of exports to imports.

h) Foreign aid

There are two main competing views about the importance of foreign aid in enhancing economic development. Researchers who are pro-aid argue that it acts as a complement to domestic resources, knowledge advancement, and eases access to foreign markets which can facilitate economic growth (Quazi *et al.*, 2014). On their part, the anti-aid view argues that foreign aid sustains inefficient and corrupt governments, funds outdated technology and worsens income inequality. Accordingly to Karakaplan *et al.* (2005), foreign aid can enhance FDI in countries with conducive business environments, while Aluko (2020) found that the positive effect of foreign aid on FDI in Africa was contingent on good institutions and financial development. In this study, foreign aid is measured using net official development assistance, and it is expected that it should be a positive correlate of FDI in Africa. Table 5.1 presents a summary of all included variables in the study.

Table 5.1 Description of Variables

Variable	Measurement	Source of Data	Expectation
FDI	FDI Stock(\$M)	UNCTAD	
BITS	Cum N° of BITS	investmentpolicyhub	+
$BITS_{i,t}^2$	BITS squared	investmentpolicyhub	+/-
BITS**	Dummy	investmentpolicyhub	+
WTO membership	Dummy	WTO	+
EU BIT	Dummy	investmentpolicyhub	+
AGOA membership	Dummy	AGOA	+
Market size	GDP(\$)	WDI	+
Macroeconomic stability	Inflation	WDI	-
	Exchange rate	WDI	-
Infrastructure	PCA	IEA	+
Labour quality	Secondary school enrolment	WDI	+
Natural resources	Mineral rents	ITC	+
Trade Openness	$\frac{Exports}{Imports} \times 100$	ITC	+
Foreign aid	AID	WDI	+
Investment climate	Economic freedom	Heritage Foundation	+
	Democracy	Polity IV	+
	Autocracy	Polity IV	-
	xconstraints	Polity IV	-
	Regime durability	Polity IV	+
	Corruption PI	Transparency Int.	-

Source: Author's compilation (2020); International Energy Agency(IEA), International Trade Centre (ITC), United Nations Conference on Trade & Development(UNCTAD), World Development Indicators (WDI), Transparency International(TI).

BITS** refer to French, the Neitherlands, US, Chinese, UK and South African BITS.

5.7.3 Data management and transformation

A. Economic freedom and infrastructure

Two important variables need further explanation. These are the aggregate indices of economic freedom and infrastructural development that were obtained through the method of principal components analysis (PCA). PCA has as an objective to find components $z_i = \{z_1, z_2, \dots, z_p\}$, that are a linear combination of $u = \{u_1, u_2, \dots, u_p\}'$ of the original variables $x = \{x_1, x_2, \dots, x_p\}$ to achieve maximum variance.

Specifically, when confronted with a large number of variables, the PCA can be employed to use these observed variables to develop a small number of variables (components) that can account for the largest variance. These components can then be used in subsequent analysis as a true representation of the original constructs. The process is recommended when there is sufficient correlation among variables to permit component representation. Its validity often depends on the value of the Kaiser-Meyer-Olkin (KMO), which theoretically should range from .5 to 1 in order to

be satisfactory. For instance, we expect that there should be high correlation between the different measures of infrastructure such as education and health expenditures since they collectively measure human capital. This is similar for measures of economic freedom such as property rights, business freedom and the investment freedom. Equation 5.9 is a mathematical formulation that is often used to transform the variables in principal components analysis.

$$PCA = \sum_{i=1}^n \frac{1}{n} a_{ij} \sum_{j=1}^n Z_j$$

$$= \frac{1}{n} \left[(a_{11} + a_{21} + \dots + a_{n1})Z_1 + \dots \right. \quad (5.10)$$

$$\left. + (a_{12} + a_{22} + \dots + a_{n2})Z_2 + \dots + (a_{1n} + a_{2n} + \dots + a_{nn})Z_n \right]$$

From equation 5.10, Z_j represents included measures of either economic freedom or infrastructure, a_{ij} are the resultant components of the matrix obtained through unrotated eigenvectors (Akame, 2015). Only few components recommended by the PCA procedure are often retained for further analysis based on the eigenvalue-one criterion, the proportion of variance accounted and an examination of the scree plots. According to the eigenvalue-one, only components with an eigenvalue greater than 1 can be retained while the criterion of proportion of variance accounted involves retaining a component if it accounts for a specified proportion (or percentage) of variance in the data set, typically above 50 per cent. Lastly, the scree plot procedure requires a plot of the eigenvalues associated with each component and looking for a significant break in the trend between the components with relatively large eigenvalues and those with small eigenvalues. Components that occur before the break can then be retained for further analysis. We analyse and present the outcome of all these in section 5.7.4, while the graphical performance of individual constructs and others are added in the appendix.

B. Transformation of other variables

Since some variables in our dataset contained missing values, we employed the method of linear interpolation to generate them (excluding FDI). This is often calculated using the formula $y_i = (1 - \rho)y_{i-1} + \rho y_{i+1}$, where y_{i-1} and y_{i+1} are previous and next missing values. Furthermore, it is common in econometric analysis for the final dataset to contain negative values and zeros. Busse and Hefeker (2007) proposed the formulation $x = \ln[x + \sqrt{(x^2 + 1)}]$ as a way of dealing with negative values and log transforming the variables. This method resulted in many negative values in our data after log transformation. As a result, we translated our variables using $\min(y_i + a) = 1$, such that $a = b - \min(y_i)$. The procedure is widely accepted by researchers, especially when y_i contains very few zeros.

Foreign direct investment and all other macroeconomic fundamentals were log-transformed prior to the analysis. However, measures of the investment climate were not transformed because they

were fairly symmetric. Taking the logarithmic form of data mitigates heteroscedasticity or skewed distributions and even makes its parameter estimates less sensitive to outliers. Therefore, their final formulation was $y_i = \log < y_i + \min(y_i + a) >$. In models where both the dependent and independent variables are log-transformed, the coefficients are interpreted as percentage changes in the dependent variable for a 1 per cent change in the predictor variable. The coefficients of investment climate variables are transformed using the formula $(e^\beta - 1) \times 100$, and interpreted as percentage changes in the dependent variable after a unit-increase in the independent variable.

5.7.4 Principal components analysis

This section summarises results from principal components analysis. It shows principal components of economic freedom, infrastructure and their corresponding Varimax rotated loadings (eigenvectors). The Kaiser-Meyer-Olkin (KMO) measures of sampling adequacy are also presented alongside these principal components to justify the use of the method as a data reduction tool for the study.

a) Components of economic freedom

Table 5.2 shows principal components from investment climate following the empirical analysis. The number of components (eight) equal the total number of variables injected in the system and all variables explain the total variation in the data. Two components were retained after analysis from the eight indices based on their minimum eigenvalues of 1. The first component accounted for 38.8 per cent of total variance while the second accounted for 16 per cent of the variance. Cumulatively, both components accounted for more than 54 per cent of the variance. As shown on the scree plot in the appendix, these two components (with eigenvalues > 1) truly represent the economic freedom index because they explain at least as much variation as the original constructs in the system. Therefore, they can be used as true measures of economic freedom since they explain most of the variance.

Table 5.2 Components of economic freedom

Component	Eigenvalue	Difference	Proportion	Cumulative
Comp1	3.10450	1.82371	.3881	.3881
Comp2	1.28079	.369591	.1601	.5482
Comp3	.911203	.175614	.1139	.6621
Comp4	.735589	.061447	.0919	.7540
Comp5	.674141	.123884	.0843	.8383
Comp6	.550258	.128329	.0688	.9071
Comp7	.421929	.100345	.0527	.9598
Comp8	.321584	.	.0402	1

Source: Author (2020)

In order to determine the constructs of economic freedom measured by these components, eigenvectors are estimated to examine components' loadings. Component loadings establish the correlation between components and the original constructs. The Varimax rotated loadings method is utilised and a benchmark of $-0.3 \leq r \leq 0.3$ is set for the loadings. Therefore, components with correlations (r) within that interval are dropped as shown by the empty spaces in columns 2 and 3 of Table 5.3 (small eigenvectors have less influence on the constructs).

Table 5.3 Varimax rotated loadings

Variable	Comp1	Comp2	Unexplained	KMO
Property rights	.5280		.2836	.7326
Tax burden		.6573	.3408	.6982
Business freedom	.4219		.4816	.7741
Labour freedom		.3583	.6426	.8665
Monetary freedom	.3263		.7060	.818
Trade freedom		.6491	.3489	.6978
Investment freedom	.4486		.4187	.8107
Financial freedom	.4554		.3927	.8065
KMO				.7756

Source: Author (2020)

Note: Empty spaces represent loadings $< .3$

Table 5.3 shows that component 1 loads strongly on property rights, business, monetary, investment and financial freedoms. Similarly, component 2 loads highly on tax burden, labour freedom and trade freedom. The implication of these loadings is that they permit the researcher to make reference to those individual constructs in further analysis. A high component loading implies that the construct has a high effect on the principal component. Therefore, property rights have the strongest effect on component 1, while tax burden has a very strong effect on component

2. Finally, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy of .7756 is greater than the threshold value of 0.5. The implication is that the method of principal components is appropriate as a data reduction technique in this situation.

b) Components of infrastructure

Similar to investment climate in the preceding subsection, Table 5.4 presents principal components of infrastructure. Infrastructure refers to those internal facilities that enhance the performance of business activities. These include communication, transportation facilities, patterns of distributions, energy, and financial institutions (Fourie, 2006; Clougherty & Grajek, 2006; Banga, 2006; Campos & Kinoshita, 2010; Nkoa, 2018). Specifically, Tabi et al.(2011), and Ogunmuyiwa & Ekone (2010) measured financial infrastructure with the ratio of M2/GDP and domestic credit to the private sector and savings ratio. These studies helped inform our choice of variables to use as an aggregate measure of infrastructure.

Table 5.4 Principal components/correlation

Component	Eigenvalue	Difference	Proportion	Cumulative
Comp1	2.88434	1.32085	.2622	.2622
Comp2	1.56349	.304488	.1421	.4043
Comp3	1.25901	.056587	.1145	.5188
Comp4	1.20242	.168140	.1093	.6281
Comp5	1.03428	.141626	.0940	.7221
Comp6	.892654	.140826	.0812	.8033
Comp7	.751828	.200875	.0683	.8716
Comp8	.550953	.177327	.0501	.9217
Comp9	.373626	.043812	.0340	.9557
Comp10	.329814	.172226	.0300	.9857
Comp11	.157588	.	.0143	1

Source: Author (2020)

Note: blanks are abs (loading) <.3)

Accordingly, five components were retained based on the minimum eigenvalue of 1. The first component (comp1) explains 26.2 per cent of the variance in the data, while the second component accounted for 14.2 percent of the total variation. Cummulatively, all retained components explain 72.2 per cent of the variation in the dataset. However, as shown on the screeplot in appendix on infrastructure, there is an elbow after component 2. Although using all five components is completely acceptable, the first two components were retained for this study to represent infrastructure due to the deviation at that level.

Table 5.5 presents Varimax rotated loadings (eigenvectors). Similarly, a benchmark of $-0.3 \leq r \leq 0.3$ was set for the loadings, showing that any eigenvector with a component loading within $-0.3 \leq r \leq 0.3$ does not strongly correlate with or affect the construct. Therefore, all loadings within that interval are dropped as shown in columns 2 to 6 by the empty spaces.

Table 5.5 Principal components (eigenvectors): Varimax rotated loadings

Variable	Comp1	Comp2	Comp3	Comp4	Comp5	Unexplained	KMO
Elect	.4064		.3456			.2374	.6883
Renewable	-.3064			.5073		.3270	.6201
Fixedbroad	.3710		-.4938			.2570	.7549
fixedtell2	.4619		-.3852			.1548	.5745
Railwaylin		.6226				.2412	.4392
Milexpendi			.5752			.2650	.3748
Healthexpe				.5910		.4017	.3714
Educatione		.3582		.3510		.5590	.3512
dcreditp2					.8706	.1481	.6318
Grosssavin		.5273				.2985	.5846
broadmoney	.5074					.1668	.5987
KMO							.5731

Source: Author (2020)

Note: blanks are abs (loading) <.3

Variables: Electricity production in kilowatts, renewable energy, fixed broadband, number of fixed telephone lines and railway lines, military expenditure, health expenditure, education expenditure, domestic credit to the private sector, gross savings and broad money supply

The first component (comp1) loads strongly on economic infrastructure (electricity, renewable energy, fixed broadband, fixed telephone lines) and broad money supply, which is a component of financial infrastructure. Similarly, component 2 loads strongly on economic and social infrastructure (military expenditures). Therefore, all retained components (comp1 and comp2) load strongly on economic infrastructure. Similarly, component 3 loads strongly on economic infrastructure, component 4 on social infrastructure and component 5 on financial infrastructure. These imply that economic infrastructure has a stronger effect on selected components. The KMO measure of sampling adequacy of .5731 is greater than the threshold value of 0.5, and therefore, the method of principal components is appropriate as a data reduction technique in this case.

Principal components are very sensitive to differences in the measuring scales in variables. Therefore, since our data were measured in percentages and units, we standardised the data and worked with correlations rather than covariances. Investment climate was measured using indices of economic freedom from the Heritage Foundation that included property rights, tax burden, business freedom, trade freedom, investment freedom, financial freedom, monetary freedom and labour freedom.

5.8 Chapter conclusion

In this chapter, the methods employed to realise the study were presented. Accordingly, we utilised the longitudinal panel design within the framework of non-experimental research due to its retrospective nature. The choice of this design was based on its ability to measure change and explain why the change took place. Furthermore, a sample of 50 African countries was selected based on data availability that spans 2000 to 2018. An innovative theoretical framework based on game-theoretic modelling is also suggested as the basis of the empirical analysis.

FDI was measured in stocks while the main independent variable (IIA) comprised of BITs and treaties with investment provisions such as membership of the WTO, treaties with the EU and AGOA membership. The chapter also clearly showed how results were validated using the Sargan-Hansen J-test, as well as the Arellano and Bond's, (1991) tests. The last section presents results of principal component analysis as a data reduction technique. Several components of economic freedom and infrastructure were reduced into order before incorporating them in further analysis. The next chapter will present and discuss the implication of these results within the context of FDI in Africa.

6. Chapter 6 Results and discussions

6.1 Introduction

Chapter 1 of this study was an introduction that outlined the specific objectives and hypotheses, that it aimed to achieve. Related literature was reviewed in Chapters 2 to 3, while Chapter 4 presented a background to the study area in terms of its economic performance, investment regimes and the socio-political environment of the study. In Chapter 4, the various methods employed in the study were explained. These included the techniques of analysis, variables used in the study, data sources and management. All econometric analysis was performed with the use of STATA and GRETL.

This chapter presents results from the empirical analysis. Section 6.2 presents the preliminary results. Trend analysis of fundamental variables and summary statistics are presented in section 6.2.1. In section 6.2.2, preliminary diagnostics of data are presented and their implications discussed. These include normality, bivariate correlation, stationarity and heterogeneity. Other important tests such as autocorrelation and heteroscedasticity are presented alongside the regression results. Regression results are presented in section 6.3 in order of the specific objectives. In section 6.4, results are discussed in relation to other studies and their implications outlined. The discussion follows the same process that was used in presenting the regression results, while section 6.5 concludes the chapter.

To summarise, the chapter shows that while bilateral investment treaties are a significant determinant of FDI in Africa, the effectiveness of treaties with investment provision is contingent on the availability of good institutions and other macro-economic fundamentals. The chapter also shows how BITs substitute domestic political institutions in Africa. All control variables are mostly in line with the expectations and results are robust to heteroscedasticity.

6.2 Preliminary results

6.2.1 Descriptive statistics

In this section, trend analysis, results from descriptive statistics and diagnostic analysis are presented. It covers summary statistics and bivariate correlations among independent variables. The section ends with preliminary diagnostics such as normality of the data, stationarity, panel heterogeneity and causality tests.

a) Trend analysis

This sub-section presents trends of principal variables to the study in conjunction with the performance of FDI in Africa. The aim is to show a visual performance of these variables in order to establish and dissect any possible relationship between them. The variables include mean

scores of BITs, democracy, autocracy and the global score of economic freedom from the Heritage Foundation. The data obtained from Policyhub show that, as at November 2019, 1106 BITs had been signed by African countries and the rest of the world since they began signing BITs in 1959. These also include intra-African BITs, (see Figure 6.1 below).

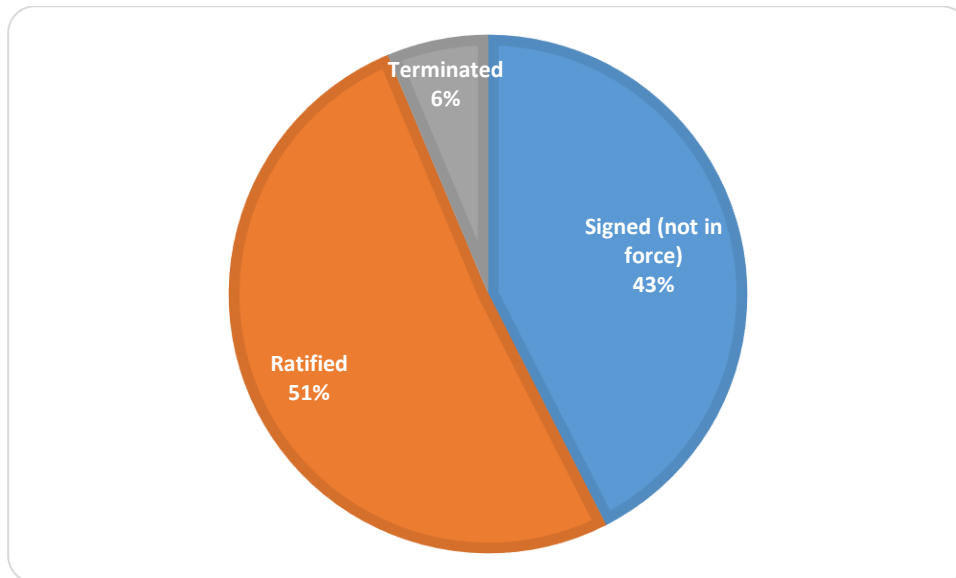


Figure 6.1 Mean BITs by Status for Africa

Source: Computed by author (2020)

As shown in Figure 6.1, 470 (43%) of these signed BITs are not yet in force, 566 (51%) are already in force or ratified while only 70 (6%) have been terminated. These statistics show that limiting the analysis to ratified BITs as in previous studies can result in significant loss of data. However, further analysis on the effectiveness of specific BITs such as with the USA and France that is coded as dummies consider only those that have been ratified.

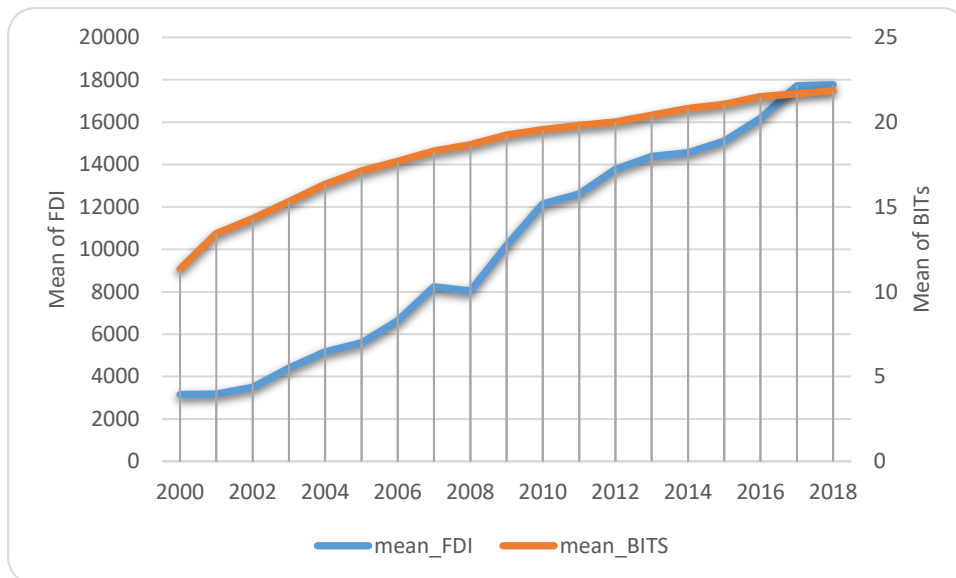


Figure 6.2 Mean BITS and FDI for Africa

Source: Computed by Author (2020)

As can be observed from Figure 6.2 above, although FDI dropped slightly during the 2008 global financial crisis, it has generally had an upward linear trend within this period. BITS, on the other hand, have on average followed a similar pattern despite at a decreasing rate. The slowing down of BITS after 2010 reflects the increasing rate of scrutiny towards their content and even cancellation in some countries. In spite of their similarity in movements, their relationship to one another can only be disentangled with a more rigorous investigation.

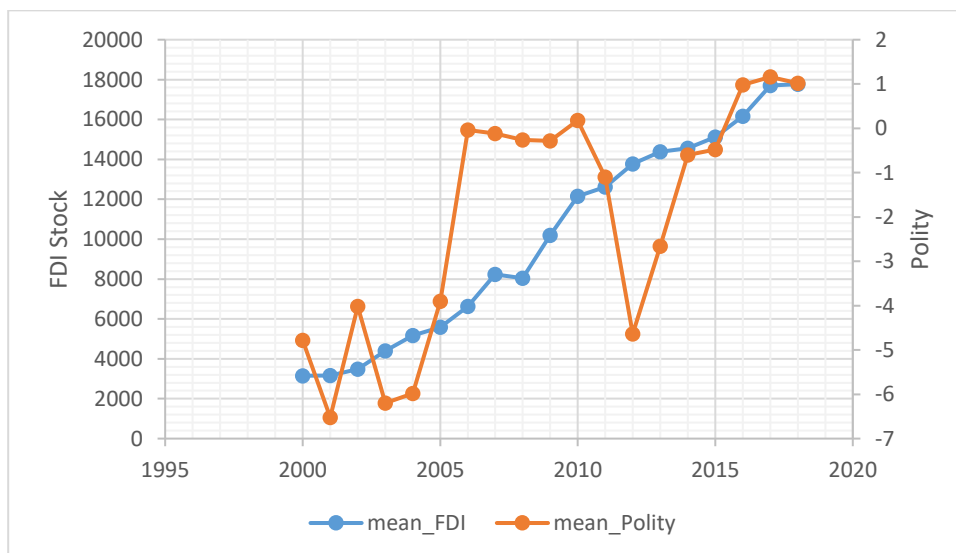


Figure 6.3 Mean Polity scores and FDI for Africa

Source: Computed by Author (2020)

Figure 6.3 on the other hand presents the mean polity (institutional quality) scores and FDI in Africa within the period of study. It can be observed that, although polity has been improving in Africa, it hit a trough in 2001 and began rising. This could perhaps be attributed to the Arab Spring

that started in late of 2010 and probably contributed in worsening the perception of institutions on the continent until 2012 when the results of the strikes with the overthrow of certain dictators and attempts to institute democratic governments could be perceived as making certain improvements to democracy. The trends of democracy scores and autocracies are presented in the appendix.

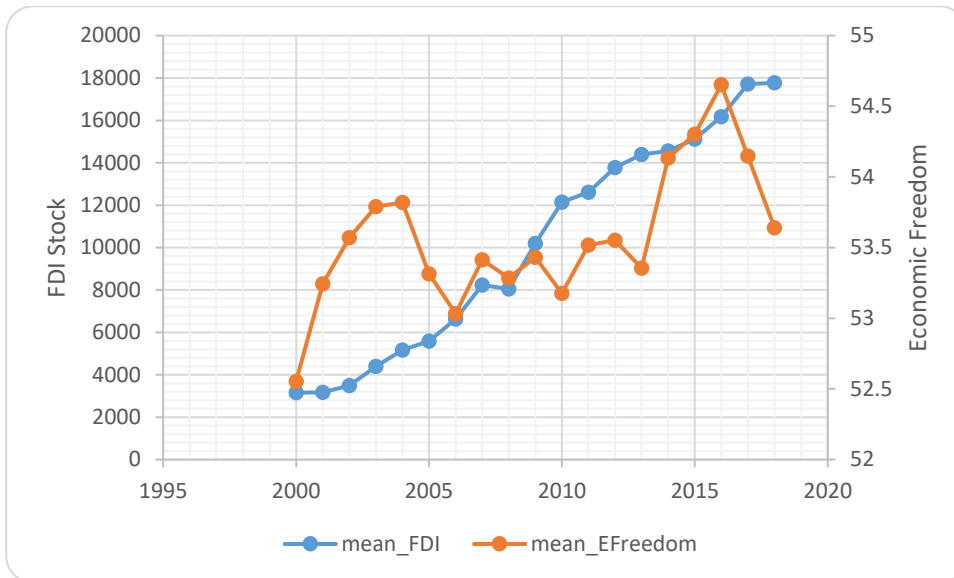


Figure 6.4 Mean economic freedom scores and FDI for Africa

Source: Computed by Author (2020)

As opposed to Figure 6.3, Figure 6.4 shows the trends of FDI and economic freedom. On average, economic freedom improved until 2004 when it suffered a decline and became cyclical until 2014. Although the business climate has fluctuated in recent times, it has since 2014 realised marked improvements.

b) Summary statistics

Summary statistics of all variables included in the estimations are presented in Table 6.1. The summary statistics are based on pooled estimates.

Table 6.1 Summary Statistics

Variables	Obs.	Mean	SD	Min	Max
FDI Stock	934	10190.73	22107.80	1.3	179564.8
Bilateral inv. treaties	950	18.34	19.51	1.0	114.0
French BIT	950	.4231579	.4943202	0	1
Netherlands	950	.4463158	.4973715	0	1
US BIT	950	.1715789	.3772127	0	1
UK BIT	950	.4652632	.4990546	0	1
Chinese BIT	950	.5736842	.4948013	0	1
South African	950	.3736842	.4840361	0	1
AGOA	950	.7242105	.4471466	0	1
EU	950	.2231579	.4165827	0	1
WTO membership	950	.8147368	.3887155	0	1
Landlocked	960	.3	.4584989	0	1
LDCs	950	.6252632	.4843099	0	0
Democracy	950	3.88	3.30	0.0	10.0
Autocracy	908	2.18	2.33	0.0	9.0
Polity	908	1.70	5.37	-9.0	10.0
Regime durability	950	12.96	13.06	0.0	59.0
Executive constraints	908	4.12	1.81	1.0	7.0
corruption	950	30.87	10.62	9.0	65.0
Econ. freedom, PC1	950	0.09	1.69	-5.6	5.0
Econ. freedom, PC2	950	0.10	0.99	-3.5	3.7
Infrastructure, PC1	948	0.00	1.65	-2.1	9.4
Infrastructure, PC2	948	0.10	1.21	-5.1	2.8
Gross domestic product	930	3.38e+10	7.17e+10	3.5e+08	5.7e+11
GDP per capita	930	2041.71	2828.94	111.9	22942.6
Trade openness	950	83.19	87.52	19.1	1053.4
Inflation	950	8.77	24.95	-9.8	513.9
Exchange rate	944	4.70e+08	4.90e+09	0.0	7.4e+10
Labour quality	858	44.08	23.70	0.3	118.4
Natural resource rents	864	13.30	13.38	0.0	84.2
Foreign Aid	900	7.16e+08	8.88e+08	-1.1e+08	1.1e+10

Source: Author (2020)

It can be observed from Table 6.1 that there are 950 observations, with some missing data points across the 50 retained cross-sections. It further shows that there is a wide deviation between minimum and maximum observations, suggesting the existence of potential outliers in the data range. Average FDI stock in Africa was \$10190.73 million with a standard deviation of 22107.80

US dollars at current prices in millions. As shown in the appendix, Comoros, Guinea-Bissau and Burundi have the least stocks of FDI, while South Africa, Egypt and Nigeria had the highest stocks of FDI within the period of study respectively. In 2008, Equatorial Guinea realised divestment amounting \$793.872 million, while Egypt received the largest all time inflow in Africa amounting to \$11578.1 million in 2007.

Table 6.1 also shows that the average number of bilateral investment treaties stands at 18.34 with a standard deviation of 19.51. As shown in the appendix, Sao Tome and Principe, Guinea Bissau and Somalia have the least number of BITS, while Egypt, Morocco and Tunisia have the most signed BITS in Africa. Major investors in Africa such as France, the Netherlands, the United States, China, the United Kingdom and South Africa are entered as dummy variables with 1 indicating the presence of a BIT between the host nation and an African country. Multilateral investment agreements such as the AGOA, the presence of a treaty with the European Union and membership with the WTO are also entered as dummies. The summary statistics further show that analysis took into consideration location of a country i.e.,landlocked nations. Finally, a dummy was also entered for least developed countries (LDCs).

The average democracy score for all African nations was 3.88 on a scale of 10 within the period of study, with a standard deviation of 3.30. While Equatorial Guinea, Rwanda and the Republic of Congo have the least scores on democracy, Cabo Verde, Mauritius, South Africa and Botswana are the most democratic countries on the continent.

Furthermore, the Gambia's rise from autocracy to a hybrid democracy represents the biggest leap of the last decade globally. Furthermore, the average scores on executive constraints are 4.12 on a scale of 7, with a standard deviation of 1.81. Equatorial Guinea, Chad, Eswatini and Cameroon have most constraints at the executive while Botswana, South Africa and Mauritius have the least. Zikalala & Sacolo (2018) attributes the development of a shadow economy in Eswatini to time, resource constraints and inflexible regulations. Similarly, indices of corruption, autocracy and regime durability are also presented. The average number of years African presidents have stayed in office within the period of study was 13, with a minimum of 1 and a maximum of 59.

Economic freedom is represented by PC1 and PC2. Zimbabwe, Democratic Republic of the Congo and Malawi have the poorest indices on economic freedom while Seychelles, Cabo Verde, Morocco and Senegal obtain the best predicted indices. These indices do not seem to suggest any relationship between BITS and economic freedom, rooted in literature suggesting that BITS either complement or substitute domestic investment climates. Zimbabwe, which is among the top FDI signatories in Africa, as shown in the appendix, obtains low scores on predicted indices of economic freedom. This is in contrast with arguments in the literature that BITs substitute/complement the investment climate in some countries. All summary statistics on

control variables such as inflation, exchange rate, terms of trade and gross domestic product are also presented in Table 6.1.

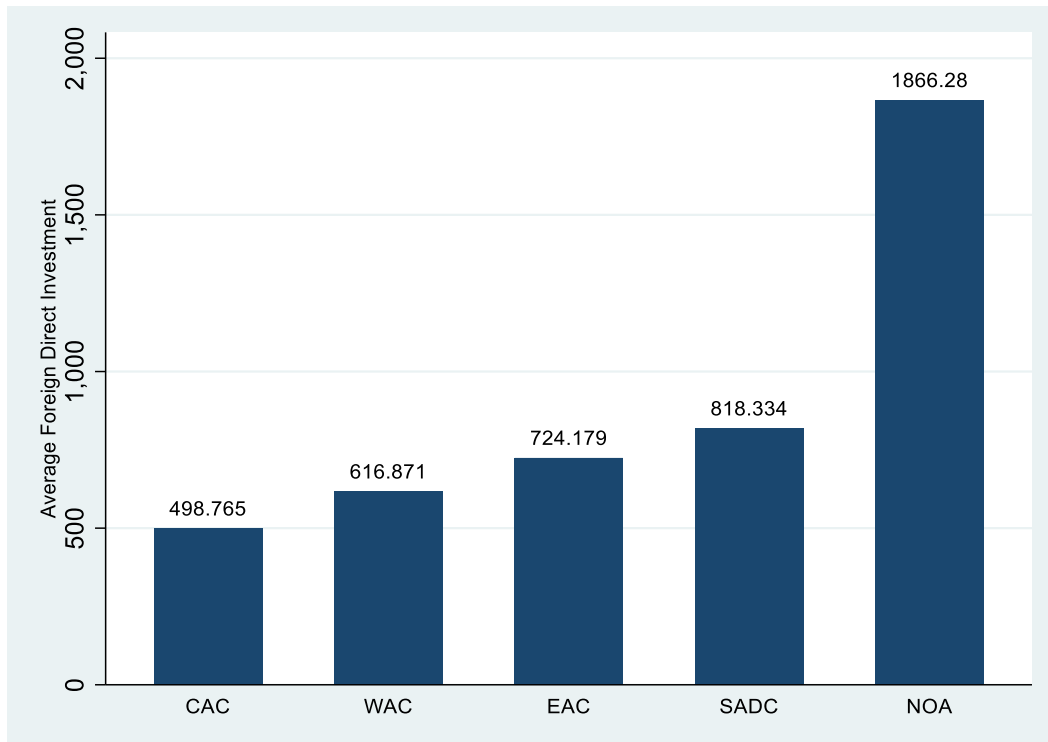


Figure 6.5 Distribution of FDI by region

Source: Computed by author (2020)

Note: Central African Countries (CAC); West African Countries (WAC); East African Countries (EAC), Southern African Countries (SADC), North African Countries (NOA)

Figure 6.5 shows regional distributions of FDI flows into Africa. Despite the differences in size across various regions, it can be observed that Northern African countries are the highest recipients of FDI, followed by Southern African countries, while the region that attracts least FDI is Central Africa. Figure 6.5 also corroborates the large inflows of FDI into Northern African countries since they account for the largest number of BITs on the continent. This suggests that the proclivity of BITs signing translates into more FDI. However, these are still subject to more rigorous investigations.

6.2.2 Preliminary diagnostics

i. Normality/distribution of residuals

Prior to the regression analysis, panel tests for normality using kurtosis and skewness were examined. Figure 6.6 shows the relative frequency distribution of residuals for foreign direct investment, which is leptokurtic (larger kurtosis than those of a normal distribution). This implies that African countries experience broader fluctuations in FDI characterised by extremely low and high FDI. The null hypothesis of the Chi-square tests is that the errors are normally distributed.

The calculated value of the Chi-square statistics was 1393.58 and a p-value 0.000, and therefore, we reject the null hypothesis and conclude that the residuals do not follow a normal distribution.

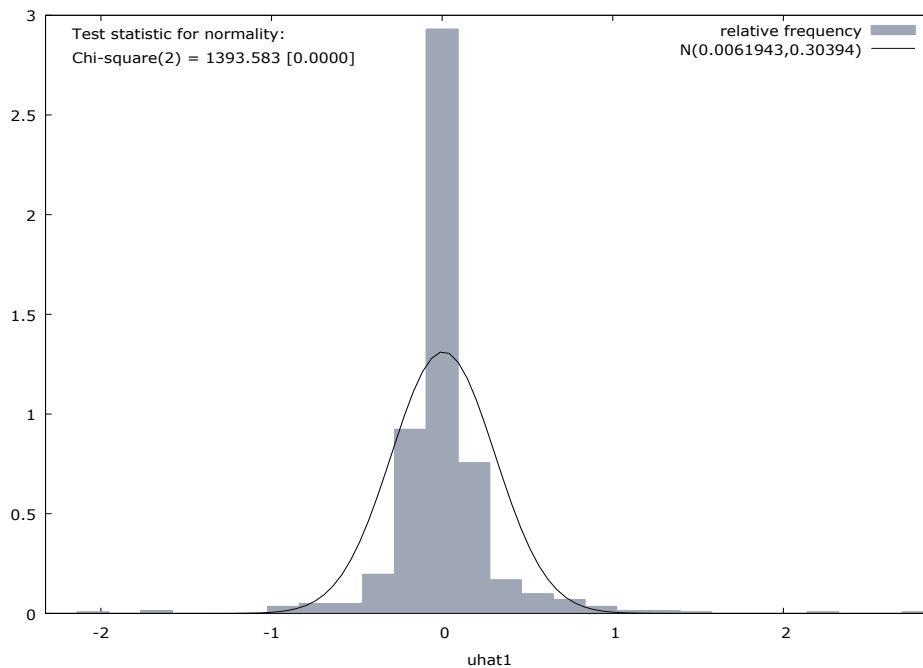


Figure 6.6 Distribution of residuals for FDI

Source: Computed by Author (2020)

Figure 6.7 shows that the distribution of residuals for bilateral investment treaties is not normally distributed. According to the value of the Chi-square test, we can reject the null hypothesis that the error is normally distributed and conclude that they do not follow a normal distribution [Chi – square = 34.74(0.000)].

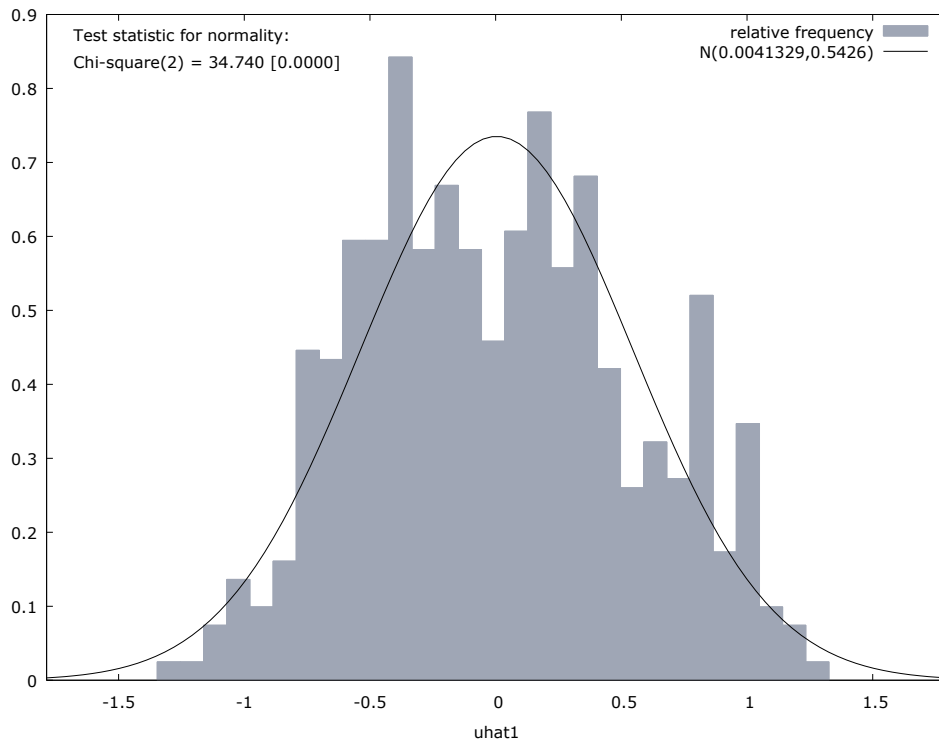


Figure 6.7 Distribution of residuals for BITs

Source: Computed by Author (2020)

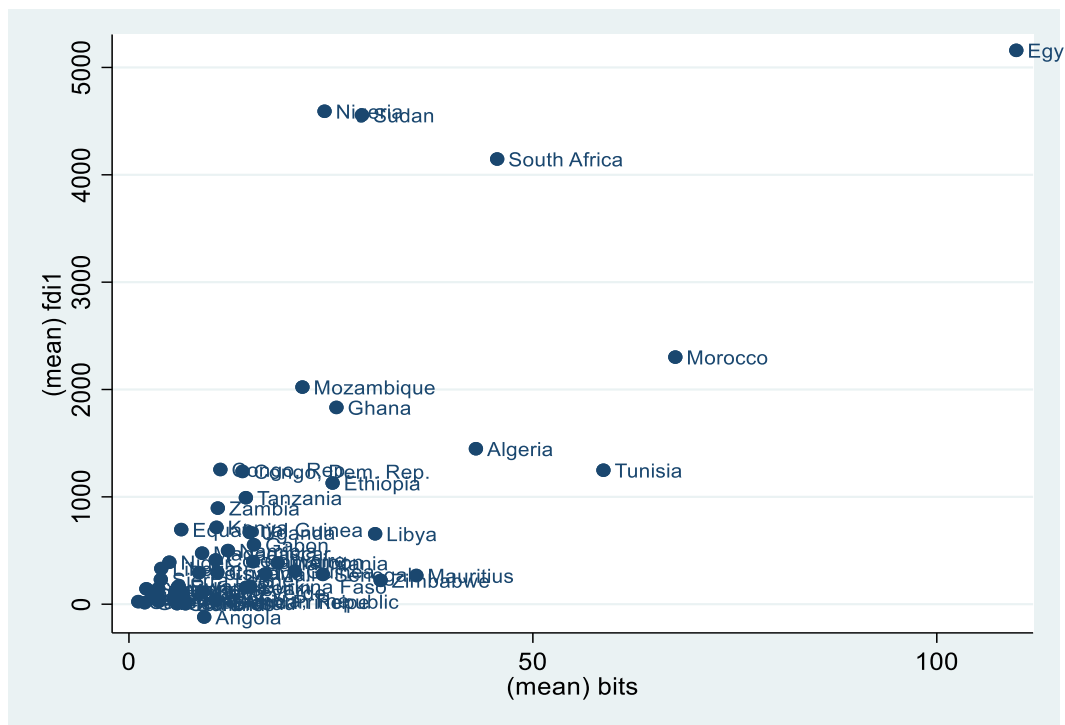


Figure 6.8 Scatter plot of FDIs and BITs

Source: Computed by Author (2020)

Figure 6.8 shows a panel scatter plot of FDIs and BITS in Africa. Egypt is at the extreme north-east of the Figure. This shows that its higher levels of BITS are strongly associated with inflow of

FDIs. This is closely followed by Morocco, Tunisia, South Africa and Algeria. All other countries that sign fewer BITs regressively cluster towards the origin. However, Nigeria and Sudan do receive impressive investments, despite signing comparatively fewer investment treaties than Morocco, Tunisia, South Africa and Algeria. Therefore, the scatter plot shows that besides BITS, there are still other fundamental factors that can explain the inflow of FDI.

ii. Bivariate Correlation Analysis

Table 6.2 present the bivariate correlaiton analysis of included independent variables. It is always neccessary to establish the direction and strength of the relationship between right-hand-side (RHS) variables. PC1 and PC2 represent principal components of economic freedom. Every point on the table represents an intersection between two variables, which shows their bivariate relationship.

Table 6.2 Bivariate correlation among independent variables

BITS	DEM	AUTO	XCONST	Corruption	
1.0000	-0.0588	0.0231	-0.0214	0.1649	BITS
	1.0000	-0.8140	0.9439	0.3780	DEM
		1.0000	-0.8110	-0.2749	AUTO
			1.0000	0.4172	XCONST
				1.0000	Corruption
PC1	PC2	GDP	GDPK	LABQ	
0.1471	0.0398	0.7671	0.4259	0.1157	BITS
0.3150	-0.0471	-0.0602	0.0546	0.1157	DEM
-0.3038	0.0029	0.0282	0.1182	0.0469	AUTO
0.3719	-0.0076	-0.0148	0.0385	0.1250	XCONST
0.5417	-0.2094	0.0306	0.2901	0.2451	Corruption
1.0000	-0.1422	0.1007	0.2159	0.0572	PC1
	1.0000	0.2051	0.0363	0.0483	PC2
		1.0000	0.4851	-0.0696	GDP
			1.0000	0.2667	GDPK
				1.0000	LABQ
NATR	Foreign aid	INFL	EXR	TRADE	
0.0028	0.3903	-0.0692	-0.2001	-0.1038	BITS
-0.4449	0.1060	-0.0123	-0.0060	0.0714	DEM
0.2431	-0.2442	0.0058	-0.1620	-0.0058	AUTO
-0.4106	0.1634	0.0285	-0.0215	0.0042	XCONST
-0.3314	0.0030	-0.1905	-0.2451	0.1926	Corruption
-0.3395	0.0736	-0.0806	-0.3414	0.0888	PC1
0.1674	0.2415	0.2580	0.0344	-0.0924	PC2
0.1874	0.4590	0.0331	-0.1902	-0.0995	GDP
-0.0800	-0.3417	-0.1774	-0.2898	0.4022	GDPK
-0.3386	-0.1573	-0.1697	-0.0214	0.1967	LABQ
1.0000	0.1360	0.0805	0.0409	-0.1249	NATR
	1.0000	0.1512	0.0817	-0.3389	Foreign aid
		1.0000	-0.1821	-0.1307	INFL
			1.0000	-0.1456	EXR
				1.0000	TRADE

Source: Author (2020)

LABQ (Labour quality), NATR (Natural resource rents), XCONST (Executive constraints), DEM(Democracy), AUTO (Autocracy), INFL (Inflation), EXR (Exchange rate).

Table 6.2 presents results on bivariate correlations among independent variables in the study. Accordingly, the direction and strengths of the correlaitons range from weak-negative to strong-positive relationships. For instance, there is a weak-negative correlation between BITS and democracy [$r = -.0588$]. This suggests that an an increase in the number of BITS may be associated with lower levels of democracy. Conversely, an increasing number of BITS can be associated with more executive constraints, principal components of economic freedom and gross domestic product. It can be seen that the corelation between GDP and BITS is positive and very strong [$r = 0.7671$], suggesting that countries with a larger market size may have been signing more BITS. Furthermore, the correlation between BITS and inflation, exchange rate and trade openness are all negative.

However, there is a moderate positive relationship between BITS and natural resource rents, foreign aid, foreign aid, labour quality (secondary school enrollments), and gross domestic product. However, correlation does not imply causation and it could be a daunting task to disentangle those chains. A strong correlation between two explanatory variables is often a potential indication of multicollinearity that requires serious examination in OLS and simple FE/RE analysis (e.g. correlations between democracy, autocracy and executive constraints). However, the existence of multicollinearity is one issue often addressed in the GMM.

iii. Heterogeneity in the data

Heterogeneity is often a major concern and it even constitutes the theoretical foundation for analytical techniques in panel data. There exist individual and unobserved heterogeneity over time. Therefore, overlooking individual and time heterogeneity can lead to the generation of inconsistent parameter estimates in panel data models (Campello, Galvao, & Ted, 2019). Identifying, qualifying and addressing individual and time heterogeneity is of utmost importance to make proper inference, given that most economic methods assume that panels are homogeneous.

Appendix E shows the heterogeneity of panels for FDI and BITs between cross-sections and over time. It can be seen that that over time and across countries, panels are generally heterogeneous. This characteristic of the data can typically be controlled by estimating regressions with country dummies. While the Fixed-Effect model ingenuously eliminate individual heterogeneity, the Random-Effects model accommodates it. However, the generalised method of the moments has an inbuilt system to control for unobserved heterogeneity in the data.

We performed a poolability test based on Chow's approach, with the null hypothesis that there are no fixed effects (no individual heterogeneity). The poolability test for fixed effects (joint validity of cross-sectional individual effects) showed that not all individual effects were equal to zero [$F(47, 779) = 24.69$, $\text{Prob} > F = 0.0000$]. This implies that cross-sections do not have common intercepts, and therefore, classical pooling would be inappropriate. Similarly, the joint significance of time dummies resulted in an $F(17, 811) = 4.83$ with $\text{Prob} > F = 0.0000$. Therefore, we rejected poolability across time and concluded that not all time fixed-effects were equal to zero. This also justifies the inclusion of time fixed effects in all estimates. Similarly, by adding time dummies in all our estimations, it helped in mitigating the severity of heterogeneity over time and also controls for cross-sectional dependence.

Results from the Breusch and Pagan test for heteroscedasticity showed that the variances were not constant [$\chi^2(1) = 1243.42$, $\text{Prob} > \chi^2 = 0.0000$]. In order to correct for heteroscedasticity, all estimates utilised corrected standard errors by including the robust option. Finally, Wooldridge test for autocorrelation showed the presence of first-order serial correlation in the data [$P(F(1,$

49) > 231.115) = 0.000]. Therefore, these problems can be incorporated and solved within a dynamic panel model.

iv. Stationarity Test

Unit root tests are conducted for all variables. Results from Levin-Lin-Chu and Im-Pesaran-Shin Tests are presented in Table 6.3. The LLC tests assumes homogeneity across sections while the IPS tests is based on the assumption of heterogeneity.

Table 6.3 Results of Stationarity Tests

	LLC	P-value	IPS	P-value	ADF Fisher	P-value
FDI	-9.175	0.000	-4.330	0.000	190.062	0.000
AFDI	-6.712	0.000	-8.057	0.000	258.758	0.000
AID	-4.629	0.000	-4.157	0.000	176.031	0.000
Autocracy	-9.076	0.000	-7.779	0.000	41.899	0.001
BITs	3.930	1.000	-11.922	0.000	386.695	0.000
Democracy	-1.994	0.023	-1.011	0.156	29.428	0.080
Durability	-549.605	0.000	-98.359	0.000	41.665	0.076
Exchange rate	0.829*	0.797	-5.511*	0.000	373.877	0.000
GDP	-8.196	0.000	-3.094	0.001	135.937	0.005
Inflation	-2.111	0.017	-4.401	0.000	130.895	0.000
LABQ	-5.345	0.000	-1.406	0.080	102.525	0.002
Resource	-5.859	0.000	-3.172	0.001	145.808	0.000
PC1	-3.617	0.000	-4.309	0.000	182.779	0.000
PC2	-11.642	0.000	-7.011	0.000	225.919	0.000
PC3	2.966	0.999	1.865	0.969	123.084	0.059
PC4	-3.774	0.000	-3.405	0.000	407.289	0.000
Polity	-28.523	0.000	-26.759	0.000	73.924	0.000
Corruption	-5.287	0.000	-5.179	0.000	186.229	0.000
TOT	-5.838	0.000	-2.461	0.007	124.651	0.048
Trade	-2.007	0.022	-2.158	0.015	162.514	0.000
xconstraints	-1.899	0.029	-2.658	0.004	37.342	0.005

Source: Computed by Author (2020), * Stationary at first difference, LABQ (labour quality), GDPK (GDP per capital)

The null hypothesis of both tests is that panels contain unit roots. On the other hand, the alternative hypothesis for the LLC is that panels are stationary, while that of the IPS is that some panels are stationary. According to Pesaran (2011), the significance of the p-value at any level implies that there is sufficient evidence that a statistically significant proportion of the units are stationary. Results from the LLC and the IPS tests support the stationarity of all variables, except

exchange rate which became stationary after first differencing. These are also supported by the Fisher-type augmented Dickey-Fuller test (ADF Fisher). Consequently, there is no need for a cointegration test, since GMM is known to produce consistent and more efficient results when variables are stationary at levels.

6.3 Regression results

This section presents regression results from the empirical analysis. The first subsection dwells on why African countries participate in BITs while the remaining ones examine the importance of BITs, TIPSS, business climate, political institutions and their mediating effects on their relationship with FDI in Africa.

6.3.1 Determinants of the proclivity of BITs signing in Africa

The first objective of this study was to examine characteristics of African countries that sign BITs. The dependent variable was logs of the cumulative number of BITs. Estimates were run using the one-way error component models while the Hausman's specification test was used to choose between the fixed and random effects. Results are presented in Table 6.4 below.

Table 6.4 Determinants of BITs signing proclivity

	(1)	(2)	(3)	(4)
L.FDI share	-.00310* (.00185)	-.00308* (.00185)	-.00311* (.00187)	-.00275 (.00185)
Gross domestic product	.192*** (.0254)	.190*** (.0240)	.190*** (.0252)	.193*** (.0242)
Freedom (PC2)	-.0777 (.0520)	-.0790 (.0518)	-.0797 (.0523)	-.0824 (.0524)
L.corruption	.0575* (.0303)	.0572* (.0303)	.0571* (.0303)	
Democracy	-.0115*** (.0041)	-.0115*** (.0041)	-.0115*** (.00414)	
Terms of Trade	-.00755 (.0294)			
Trade openness			.00295 (.0275)	
Autocracy				.0153** (.00603)
Freedom (PC1)				.0729* (.0427)
Constant	-1.66*** (.584)	-1.644*** (.580)	-1.673*** (.643)	-1.746*** (.578)
No. of Obs.	830	830	830	830
R-squared	.622	.622	.622	.621
F statistic	54.16***	56.69***	54.15***	56.45***

Standard errors in parentheses

* p<0.10, ** p<0.05, *** p<0.010

Dependent variable: Cumulative BITs

Time-fixed effects included but coefficients not reported

Accordingly, columns 1 to 2 in Table 6.4 were consistent and efficient under the random effects approach, while column 3 to 4 were consistent under the fixed effects model. According to the rho values, significant variances were due to differences across panels and the F-tests showed that all coefficients of the models were significantly different from zero. All estimations control for time-fixed effects by including year dummies.

Table 6.4 presents coefficients of all estimated parameters, their signs and levels of significance. It would be observed that the signs of all estimates are consistent across the four models. Each coefficient of a macroeconomic fundamental indicate the percentage change in BITs when the regressor changes by one per cent, *ceteris paribus*. The coefficients of corruption, democracy and autocracy are interpreted as $(e^{\beta} - 1) \times 100$ changes in BITs signing proclivity given a 1-unite increase in the former. For instance, a one unit increase of democracy scores in column 1 would significantly reduce the proclivity of BITs signing by $(e^{-.0115} - 1) \times 100 = -1.14\%$, and the value

remains the same across the remaining models. Two-tailed p-value tests were utilised to verify the hypothesis that each coefficient is different from zero. Rejecting each of the hypotheses is conditional upon the p-value falling short of a threshold of .10. Standard errors are presented in parentheses.

According to results in column 1, a one per cent increase in FDI share would reduce the cumulative number of BITS signed by .0031 per cent. This was significant at .10 level, two-tailed test and the signs were consistent in the remaining four models. These findings agree with our expectations from both theory and empirical literature. Similarly, we examined the impact of previous investments on cumulative BITs to explore the possibility that treaty signing could be investor-driven (see appendix). The existence of a positive and significant impact would have implied that treaty signing was driven by firms who wish to gain more protection for their investments and such BITs would typically not lead to future investments. It would also have signalled the possibility of reverse causality between FDI and BITs. Results showed that the effect was not significant.

Results on the impact of gross domestic product (market size) on treaty signing proclivity show that they are positive and statistically significant at .01 level across all estimations. Corruption similarly had a positive and significant impact on a country's cumulative number of BITs signed with the same level of significance across columns 1 to 3. Democracies were less likely to sign BITs as shown by their negative and significant coefficients in columns 1 to 3, while autocracies were more likely to sign them (column 4). Furthermore, the coefficient of economic freedom (PC1) was positive and significant at .1 level. This outcome supports our economic expectations.

6.3.2 The Impact of IIAs on foreign direct investment

i. Results on the impact of bilateral investment treaties

The second objective of this study was to examine the impact of IIAs [BITs and TIPs] on FDIs in Africa. A two-step systems GMM was run with FDI as the dependent variable and the cumulative number of BITs as the main independent variable. All estimations took into consideration time-specific fixed effects by adding year dummies in the regressions and t-statistics were based on white-heteroscedasticity-consistent standard errors. Finally, numbers of observations in every estimation vary because of missing data across some panels.

Tables 6.5 presents short-run dynamic coefficients of all included variables. Results of the F-statistics (not presented) show that all coefficients of the models are significantly different from zero. Similar to the previous section, two-tailed t-tests were utilised to verify the hypothesis that each estimated parameter is different from zero. Therefore, rejecting each of the hypotheses is conditional upon the p-value being strictly < 0.1 level. Standard errors are presented in parentheses and all results are robust to heteroscedasticity.

Analysis of model validation show that while all of the models suffer from first order serial correlation [$AR(1) < .05$] as expected, none have second order serial correlation as seen from insignificance in the p-values of AR (2) [$AR(2) > .05$]. Similarly, the difference-in-Hansen tests for exogeneity of instruments subsets statistics are all within the recommended range of $.1 \leq H \leq .25$; which are in agreement with their theoretical expectations. Finally, the total number of instruments generated at each stage of the estimation is less than the sample size (50); this is similarly in accordance with the theoretical expectation. These post estimation attributes show that the models are valid and the right instruments were used during the estimations.

Table 6.5 Results on the effects of BITs on FDI

	(1)	(2)	(3)	(4)
L.FDI	0.982*** (0.0176)	0.941*** (0.0183)	0.922*** (0.0147)	0.839*** (0.0322)
Bilateral inv. treaties	0.122** (0.0564)		0.103** (0.0400)	0.169 (0.108)
<i>BITs</i> ²		0.0044 (0.0059)		
Trade openness	0.115*** (0.0289)	0.0784*** (0.0282)	0.078*** (0.0286)	0.199*** (0.0320)
Exchange rate	-0.0062** (0.0023)	-0.0035** (0.0015)		-0.0048*** (0.0016)
Gross domestic product		0.0634** (0.0262)	0.0380* (0.0214)	0.212*** (0.0376)
Foreign aid		0.0230*** (0.0077)	0.024*** (0.0057)	0.0067 (0.0113)
Inflation	0.0244*** (0.0086)			
Infrastructure (PC4)	0.485*** (0.0997)			
Resource rents			0.0137 (0.0123)	
<i>BITs x L.FDI stock</i>				-0.0203 (0.0126)
Constant		-1.51*** (0.540)		-4.348*** (.831)
Observations	837	824	802	824
No. of instruments	46	47	48	45
AR1 (p-value)	0.0024	0.0001	0.0012	0.0008
AR2 (p-value)	0.122	0.219	0.199	0.218
Hansen-J (p-value)	0.181	0.188	0.186	0.189
Prob>F-statistics	0.000	0.000	0.000	0.000

Standard errors in parentheses

Dependent variable: FDI stocks

* p<0.10, ** p<0.05, *** p<0.010

Time-fixed effects included but coefficients not reported

All presented coefficients in Table 6.4 show the direction, magnitude and level of significance of the estimated parameters. The signs of included variables are consistent across all models. Each coefficient shows the percentage change in FDI, given a one per cent change in the regressor, all other things being equal. For instance, the coefficient of the first lag of FDI in column 1 suggests that, other things held constant, a one per cent increase in previous investments would increase

FDI by .982 per cent. The sign of this coefficient and level of significance are consistent across all four columns with a probability of 0.000.

Accordingly, BITs have a positive and significant impact on FDI in columns 1 and 3. In column 1, for instance, a one per cent increase in BITS would increase FDI by .122 per cent, all else the same. Column 4 shows that FDI would increase by .169 per cent given a one per cent increase in BITS, everything being equal and these coefficients are significant at .01 level. These findings agree with our theoretical expectations. However, squaring BITS results in a positive but insignificant impact [p-value = 0.468], suggesting that diminishing returns would set in at some level. Finally, the interactive effect of BITS and the first lags of FDI was negative and insignificant. This implies that the increase in FDI was a result of new investments attributed to foreign investors.

The coefficient of trade openness is positive as expected and highly significant at .01 level across all four models. Its estimated parameter in column 1 shows that a one per cent increase in trade openness, everything being equal, would increase FDI by .115 per cent. On the impact of macroeconomic stability, the coefficient of inflation is positive and statistically significant. This fails to agree with economic expectations. On the other hand, exchange rates have a negative and significant impact on FDI as expected. According to column 1, a per cent increase in exchange rate would decrease FDI by .00618 per cent. This coefficient is significant at .05 level.

Further results show that a unit increase in infrastructure would strengthen FDI by .485 per cent. This is statistically significant at .01 level. Gross domestic product is also a significant determinant of FDI in column 3, although the coefficient is barely significant at .1 level. Finally, foreign aid significantly influences the direction of FDI. In column 2, a unit increase in foreign aid would increase FDI by .0202 per cent, all other things the same.

ii. **The Impact of BITS in landlocked and least developed countries**

Models 1 to 5 in Table 6.6 present results on the impact of BITS in landlocked and least developed countries. The interactive effects of BITS with natural resource rents are also presented. Accordingly, all modes passed validation tests as seen from the number of instruments, AR (2) and the difference in Hansen's test for exogeneity (Hansen) of instruments. BITS, foreign aid, trade openness, the second principal component of infrastructure (pc4) and gross domestic product are significant determinants of FDI.

As shown in Table 6.6 below, resource rents become a significant determinant of FDI with a magnitude of 0.059 at a p-value of 0.039 in column 5. BITS also continue to be significant with a p-value of 0.020, while their interactive effect is negative and insignificant with a p-value of 0.103. In order to understand the performance of FDI across different parts of the continent, a dummy variable on a country's landlocked status was similarly added. Column 6 shows that the coefficient of landlocked countries was positively associated with FDI, despite being insignificant with a p-

value of 0.832. However, its interactive effect with BITs was positively associated with increased FDI on the continent and had a p-value of 0.053 as expected.

Table 6.6 Results on the effects of BITs on FDI in landlocked and LDCs

	(1)	(2)	(3)	(4)	(5)
L.FDI stock	0.922*** (0.0179)	0.957*** (0.0480)	0.943*** (0.0259)	0.965*** (0.0092)	0.943*** (0.0131)
Trade openness	0.102*** (0.0281)	0.0824* (0.0463)	0.0837* (0.0485)	0.0551*** (0.0174)	0.0925*** (.0225)
Gross domestic product	0.0490** (0.0241)	0.0332 (0.0506)			
Foreign aid	0.0199*** (0.0063)		0.0285* (0.0157)		0.0131* (0.00704)
Bilateral inv. treaties	0.0960** (0.0400)		0.0952 (0.0755)		0.0567 (0.0479)
Exchange rate		-0.0005 (0.0030)		0.0021** (0.0009)	
Infrastructure(PC4)		0.156* (0.0827)		0.142*** (0.0176)	0.195** (0.0820)
Resource rents	0.0598** (0.0282)				
<i>Resource rents x BITs</i>	-0.0137 (0.0083)				
Landlocked		0.0206 (0.0969)	-0.664* (0.334)		
<i>Landlocked x BITs</i>			0.261** (0.127)		
LDCs				-0.0220** (0.0104)	-0.215*** (0.0435)
<i>LDCs x BITs</i>					0.0776*** (.0175)
Constant		-0.820 (.937)		-0.136 (.111)	-0.687** (0.295)
Observations	802	875	847	886	839
No. of Instruments	48	48	48	46	47
AR1 (p-value)	0.0013	0.0020	0.0007	0.0016	0.0009
AR2 (p-value)	0.205	0.181	0.205	0.178	0.202
Hansen-J (p-value)	0.207	0.201	0.215	0.219	0.125
Prob>F-statistics	0.000	0.000	0.000	0.000	0.000

Standard errors in parentheses

Dependent variable: FDI stocks

* p<0.10, ** p<0.05, *** p<0.010

Time-fixed effects included but coefficients not reported

Finally, being a LDCs has a negative influence on FDI with a magnitude of .022 per cent and this coefficient is significant at a probability level of 0.01. Finally, the interactive effect of LDCs with commitment to more investment treaties produced a positive impact with a magnitude of 0.078 per cent that was statistically significant at a probability level of .01. This implies that an increase in the number of BITs signed by LDCs attracts FDI.

iii. Results on the effectiveness of specific BITS

A sub-objective on the impact of BITS was to examine the effectiveness of specific BITS in order to identify the most effective ones. Top-FDI investing countries in Africa were classified and the first five were selected. These included France, The Netherlands, The United States of America, The United Kingdom, China and South Africa. The presence of these BITS in an African country was entered as dummies. Countries not explicitly captured and years before the BIT was signed represent the reference group. A positive regression coefficient implies that FDI would be higher in countries that have a signed BIT relative to the reference group (those without a BIT). Table 6.7 presents results on the effectiveness of those BITS.

Table 6.7 Results on the effectiveness of specific BITS on FDI

	(1)	(2)	(3)	(4)	(5)	(6)
L.FDI stock	.937*** (.0138)	.936*** (.0165)	.941*** (.0227)	.938*** (.0193)	.946*** (.0197)	.942*** (.0123)
GDP	.0466** (.0206)	.0783*** (.0211)	.104*** (.0269)	.0664*** (.0223)	.0842*** (.0258)	.0453** (.0217)
Exchange rate	-.0017** (.000711)	.0025** (.00103)	.00049 (.00139)	.00045 (.00064)	.0029** (.00139)	-.0029*** (.000943)
Trade openness	.0726*** (.0223)	.107*** (.0244)	.0798** (.0348)	.0818*** (.0242)	.0725** (.0305)	.0463* (.0247)
Infrastructure	.201*** (.0236)	.152*** (.0209)	.143*** (.0332)	.157*** (.0178)	.124*** (.0322)	.151*** (.0243)
French BITS	.0537** (.0209)					
Netherlands		-.0359 (.0243)				
United States			.167* (.0994)			
UK				-.043** (.0204)		
Chinese BITS					-.0441 (.0296)	
South Africa						0.0961*** (0.0238)
Constant	-1.026** (.452)	-1.79*** (.498)		-1.38*** (.503)		-0.829 (0.519)
Observations	875	875	875	875	875	875
instruments	48	46	44	47	44	49
AR1 (p-value)	.00147	0.00147	.00139	.00158	.00147	.00138
AR2 (p-value)	.167	.173	.174	.173	.175	.169
Hansen p-value	.234	.194	.227	.115	.154	.235
Prob>F-statistics	0.000	0.000	0.000	0.000	0.000	0.000
Standard errors in parentheses		Dependent variable: FDI stocks				
* p<0.10, ** p<0.05, *** p<0.010		Time-fixed effects included but coefficients not reported				

Similar to regression tables in the preceding sections, columns 1 to 6 in Table 6.7 are valid based on the significant F-test, smaller number of instruments generated relative to sample size, absence of second order serial correlation and insignificance in differences in Hansen's tests for exogeneity of instruments, since all the tests lie within the theoretically expected interval of

$0.1 \leq H \leq 2.5$. Results in Table 6.7 show that besides exchange rate whose effect is inconclusive, the coefficients of the first lag of FDI, gross domestic product, trade openness and infrastructure are all positive and statistically significant in all estimations.

The presence of a French BIT attracts FDIs into the country by .0537 per cent, relative to countries that do not have a BIT with France. This coefficient is in accordance with the expectations, and statistically significant at 0.05 level. The presence of active BITS with the United States of America is similarly positive as expected and significant at .10 level. However, the presence of a BIT with the United Kingdom has a negative and significant impact on FDI at .01 level. Accordingly, signing a treaty with the United Kingdom reduces FDI by .043 per cent. Finally, the presence of a South African BIT increases FDI by .0961 per cent. This coefficient is as expected and attains statistical significance with 0.01 level. A confirmatory analysis with FDI inflow as the dependent variable (Appendix A22) showed that Chinese BITs had the largest impact on FDI inflow. All estimations also took into consideration time-fixed effects by including year dummies.

iv. **Results on the impact of treaties with investment provisions**

The fourth sub-objective in this study was to examine the impact of multilateral agreements with investment provisions on FDIs. Three main treaties were considered in this study, i.e. the AGOA, accession to the WTO and treaties involving investment provisions with the European Union. Similar to the previous section, a positive coefficient shows that FDI would increase in the country with an existing treaty, compared to the reference group (those that are not members). Table 6.8 presents results on the impact of these treaties on FDIs in Africa.

Table 6.8 Results on the impact of TIPs on FDI

	(1)	(2)	(3)	(4)	(5)	(6)
L.FDI stock	.951*** (.0196)	.901*** (.0130)	.959*** (.0219)	.963*** (.0188)	.963*** (.0218)	.944*** (.0153)
GDP	.0692*** (.0237)	.0290 (.0251)	.0896*** (.0272)	.0504* (.0290)	.0169 (.0246)	.0142 (.0134)
Exchange rate	.00115 (.00106)		-.00087 (.00141)	.00058 (.000758)	.0022** (.00105)	
Trade openness	.0617** (.0288)	.118*** (.0287)	.0763*** (.0266)	.0554** (.0211)	.0738** (.0340)	.0715*** (.0257)
Infrastructure,PC4	.164*** (.0260)	.251*** (.0633)	.262*** (.0559)	.236*** (.0343)	.161*** (.0242)	.141*** (.0243)
AGOA	.0183 (.0211)	-1.36*** (.241)				
<i>AGOA x GDP</i>		.0592*** (.0105)				
EU			-.0345 (.0227)	.760*** (.259)		
<i>EU x GDP</i>				.0349*** (.0116)		
WTO					-.0257 (.0235)	-.167 (.299)
<i>WTO x GDP</i>						.00592 (.0136)
Constant	-1.53*** (0.495)	-.623 (.532)				-.175 (.286)
Observations	875	881	875	875	875	881
No. of instruments	45	49	45	49	48	47
AR1 (p-value)	.00141	.00150	.0013	.00149	.0013	.00139
AR2 (p-value)	.172	.161	.170	.168	.171	.161
Hansen-p-value	.202	.170	.128	.108	.106	.112
Prob>F-statistics	0.000	0.000	0.000	0.000	0.000	0.000

Standard errors in parentheses

Dependent variable: FDI stocks

* p<0.10, ** p<0.05, *** p<0.010

Time-fixed effects included but coefficients not reported

Similar to previous analysis, all models passed necessary validation techniques based on the number of instruments generated, absence of second-order serial correlation, insignificance in the Hansen's tests for exogeneity of instruments and are robust to heteroscedasticity.

Besides estimating the impact of these agreements individually, their moderating effects are also estimated by interacting with gross domestic product. The first lag of FDI is positive and significant. Control variables such as gross domestic product, trade openness and infrastructural development are positive and statistically significant as expected. However, the effect of exchange rate as a measure of macroeconomic stability on FDI remains inconclusive.

In columns 1 to 2, the effect of AGOA is tested on FDI. Accordingly, the coefficient of membership in the African Growth and Opportunity Act is positive, but not significant in column 1. Interacting it with gross domestic product (market size) result in a positive mediating effect on FDI (column 2) as expected.

In columns 3 to 4, the effects of the presence of a European Union treaty are similarly tested on FDI in Africa. Results in column 3 show that the coefficients of a treaty with the European Union is negative, but insignificant. However, interacting an EU treaty with gross domestic product of the country transforms these results in column 4. Accordingly, the coefficient of EU treaties become positive, suggesting that FDI would increase in countries with an existing EU treaty. The mediating effect of an EU treaty with GDP on FDI is also positive, suggesting that FDI will increase if the treaty is with a larger economy. Finally, columns 5 to 6 show show the effect of a country's membership with the WTO on FDI. The negative sign of WTO membership and the moderating variable indicates that the effect diminishes over time, despite being statistically insignificant.

6.3.3 Investment climate and foreign direct investment

a) Results on the impact of political institutions on FDI

The third objective of this study was to examine the impact of investment climate and its interactive effects with BITs on FDI in Africa. This section presents results on the impact of political institutions, while the next focuses on the business climate. Political institutions were measured with democracy, autocracy, polity, executive constraints and corruption perception. These institutional variables were not log-transformed and their parameters are interpreted to imply a $(e^{\beta} - 1)100$ per cent change in foreign direct investment, given a unit change in the institutional variable. For instance, the coefficient of executive constraints of -.032 in column 5 implies that, a unit increase in executive constraints would reduce foreign direct investment by $(e^{-0.032} - 1) \times 100 = 3.15\%$. However, results on macroeconomic fundamentals are interpreted as percentage changes in the FDI given a 1 per cent change in the dependent variable. All estimates are presented in Table 6.9.

Columns 6.9 shows that all estimates passed validation tests as shown by the absence of second order serial correlations, insignificance in the differences in Harsens's tests for exogeneity of instruments, and they were also robust to heteroscedasticity. Similarly, all estimations control for market size, trade openness, exchange rate as a measure of macroeconomic stability and infrastructural development.

Results on control variables are positive and statistically significant, but for exchange rate that does not attain the threshold for significance. The endogenous variable, lag of FDI, remains positive and highly significant with a confidence level of 99 per cent. All signs are as expected and the interpretations remain the same as in the preceding sections. For instance, in column 1, a one per cent increase in previous investments will increase FDI by .924 per cent, everything being equal.

Table 6.9 Results on the effects of institutions on FDI

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
L.FDI stock	.924*** (.0119)	.912*** (.0170)	.921*** (.0129)	.933*** (.0167)	.925*** (.0122)	.921*** (.0120)	.877*** (.0191)
GDP	.0617** (.0242)	.0853*** (.0249)	.0978*** (.0249)	.0812*** (.0283)	.0144 (.0324)	.0544** (.0214)	.183*** (.0451)
Trade openness	.134*** (.0260)	.167*** (.0373)	.134*** (.0323)	.126*** (.0338)	.127*** (.0304)	.119*** (.0307)	.386*** (.0709)
Exchange rate	.00186 (.00144)		.00126 (.00136)		.00242 (.0017)	.00156 (.00152)	
PC4	.140*** (.0268)	.130** (.0638)	.208*** (.0363)	.151*** (.0321)	.135*** (.0390)	.181*** (.0314)	.125** (.0549)
Democracy	-.0107** (.00458)	-.050*** (.0135)					
BITs		.0266 (.0304)		.0879*** (.0303)			.0388 (.0294)
<i>Democracy x BITs</i>	.0156***	(.00542)					
Autocracy			.0163** (.00647)	.0335** (.0165)			
<i>Autocracy x BITs</i>			-.00808	(.00518)			
xconstraints					-.032*** (.0080)		
Polity score						-.009*** (.0030)	-.050*** (.0093)
<i>Polity x BITs</i>							.0139*** (.00314)
Constant	-1.44** (.596)	-2.09*** (0.703)	-2.35*** (.622)	-2.21*** (.675)		-1.44*** (.495)	-5.06*** (1.199)
Obs	836	842	836	842	836	836	842
Instruments	49	49	48	49	45	49	49
AR1	.00110	.0011	.00126	.00122	.00129	.00109	.00082
AR2	.157	.139	.162	.152	.157	.156	0.122
Hansen	.165	.132	.158	.111	.125	.154	0.133
Prob>F-statistics	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Standard errors in parentheses

Dependent variable: FDI stocks

* p<0.10, ** p<0.05, *** p<0.010

Time-fixed effects included but coefficients not reported

The coefficient of democracy is negative and statistically significant at .05 level in column 1. Therefore, a one per cent increase in democracy would decrease FDI by .0107 percentage points, all things being equal. The sign of democracy does not agree with the theoretical expectation. In column 2, democracy is interacted with BITs to estimate its mediating effects on FDI. Accordingly, their interactive effect shows that FDI would increase by .0156 per cent which is statistically significant at .01 level. This outcome is in agreement with our economic expectations.

Similarly, we also investigated the impact of autocracies on FDI in Africa. It would be observed from column 3 that a unit increase in autocracies increased FDI in Africa by .0163 per cent and at a significance value of .01. These findings are similarly contrary with our economic

expectations. After interacting autocracies with BITs in column 3, their interactive effect is negative as expected but does not attend the threshold for statistical significance.

Furthermore, the impact of executive constraints on FDI is negative and significant at .05 level, suggesting that a unit increase in executive constraints would reduce FDI by .032 percentage points as expected. Finally, the effect of polity on FDI, presented in columns 6 to 7 is negative and statistically significant at .05 per cent level. When interacted with BITs, its mediating effect with BITs on FDI is positive and statistically significant at .01 level as expected.

Results in Table 6.9 did not agree with theory. Therefore, there is a need for probing in order to get more insight. To this end, the study examines the impact of regime durability and corruption perception index in Africa. As shown in Table 6.10, we controlled for gross domestic product, trade openness, macro-economic stability and infrastructural development. Columns 8 to 11 are all valid as can be observed from their post-estimation results.

Table 6.10 Effects of regime durability and corruption on FDI

	(8)	(9)	(10)	(11)
L.FDI stock	.946*** (.0189)	.954*** (.0157)	.958*** (.0129)	.936*** (.0338)
Gross domestic product	.0644*** (.0171)	.0132 (.0217)	.0306** (.0151)	.0448 (.0917)
Trade openness	.0430 (.0268)	.0589** (.0282)	.0572** (.0249)	.200** (.0874)
Exchange rate	.000822 (.000833)		.000482 (.00129)	
Infrastructure(PC4)	.144*** (0.0187)	.178*** (0.0302)	.170*** (.0259)	.143 (.321)
Corruption			-.0104 (.0462)	-.542** (.264)
BITs		.111*** (0.0353)		-.598** (.261)
<i>Corruption x BITs</i>				.227*** (.0823)
Durability	.000961* (.000512)	.00927*** (.00294)		
<i>Durability x BITs</i>		-.0023*** (.000817)		
Constant		-.776* (0.443)		
Observations	875	881	875	881
No. of instruments	49	48	49	49
AR1 (p-value)	.00129	.00164	.00131	.00135
AR2 (p-value)	.171	.161	.170	.145
Hansen-J (p-value)	.239	.123	.101	.104
Prob>F-statistics	0.000	0.000	0.000	0.000
Standard errors in parentheses				
Dependent variable: FDI stocks				
* p<0.10, ** p<0.05, *** p<0.010				
Time-fixed effects included but coefficients not reported				

Regime durability has a positive and significant impact on FDI with a confidence level of 90 per cent [$\beta=.000961$, p-value= .1]. The coefficient implies that an additional year of a regime in power

would increase foreign direct investment by $(e^{0.000961} - 1) \times 100 = 0.096\%$. Interacting regime durability with the cumulative number of BITs in column 9 shows that BITs are positive and highly significant at .01 level with an effect size of .111 per cent. Interacting regime durability with BITs results in a negative and highly significant coefficient at .01, level with an effect size of -0.0023. This implies that an additional year by a regime that signs a BIT would reduce FDI $(e^{-0.0023} - 1) \times 100 = 0.230\%$ over time. In column 11, the interactive effect of BITs and corruption had an effect size of .227, which was significant at .01 level. This implies that a unit increase in corruption would increase FDI by $(e^{0.227} - 1) \times 100 = 25.5\%$

b) Results on the impact of the business climate on FDI

The second half of the third objective was to examine the impact of the business climate on foreign direct investment in Africa. The business climate was measured with principal components of economic freedom and results are presented in Table 6.11.

Table 6.11 Results on the effects of the business Climate on FDI

	(1)	(2)	(3)	(4)
L.FDI stock	.954*** (.0245)	.930*** (.0154)	.931*** (.0168)	.925*** (.0154)
Gross domestic product	.0490* (.0255)	.0397 (.0280)	.0445* (.0250)	.0410** (.0188)
Trade openness	.0640** (.0255)	.101*** (.0311)	.0593** (.0290)	.0689** (.0319)
Exchange rate	.00175 (.00233)		.000741 (.00104)	
Infrastructure(PC4)	.153** (.0597)	.175*** (.0400)	.112*** (.0213)	.134*** (.0291)
Freedom(PC1)	.0206 (.0338)	-.177 (.110)		
Freedom (PC2)			-.0603 (.0456)	.225* (.129)
BITs		-.0551 (.0665)		.263*** (.0820)
<i>Freedom(PC1) x BITs</i>		.0593 (.0376)		
<i>Freedom (PC2) x BITs</i>				-.109** (.0462)
Constant	-1.094* (.562)	-.850 (.679)	-.568 (.557)	
Observations	875	881	875	881
No. of instruments	48	48	47	48
AR1 (p-value)	.00121	.00154	.00129	.00101
AR2 (p-value)	.169	.161	.171	.156
Hansen-J (p-value)	.251	.246	.140	.142
Prob>F-statistics	0.000	0.000	0.000	0.000

Standard errors in parentheses

* p<0.10, ** p<0.05, *** p<0.010

Dependent variable: FDI stocks

Time-fixed effects included but coefficients not reported

As can be gathered from the table above, the F-tests in all models were all significant. Results from Hansen's test and AR(2) reveal that the model were valid. All estimations controlled for gross domestic product, trade openness and infrastructure, which were positive and significant. However, the coefficient of exchange rate was positive but did not reach significance.

In column 1 of Table 6.11, the coefficient of PC1 is positive but not significant. Interacting it with BITs in column 2 results in a negative and insignificant effect size. The results are not in agreement with our expectations. In column 3, the interactive effect of the business climate and BITs is -.109 per cent and significant at .05 level, suggesting that FDI would decrease over time. This is not in agreement with the expectations. However, PC2 and BITs are now significant determinants of FDI.

6.4 Discussion of results

6.4.1 BITs signing Proclivity

In this study, we examined characteristics of countries that were more inclined to signing BITs using the Fixed/Random effect model. The following sections discuss the implications of all significant results.

a) Foreign direct investment Share

The first variable aimed to examine the impact of a country's FDI share into the continent on its treaty signing proclivity. This measure was similar to a country's competitive advantage in pooling FDI. Estimates were negative and weakly significant as expected. The results lend credence to the hypothesis that BITs' proclivity diminishes over time for countries with a greater competitive advantage in attracting FDI. Although Aisbett (2007) argued that an increase in past investments may increase possibilities of future BITs, this should happen when such investments were a result of BITs. In most cases, countries with existing advantages in attracting FDI should have less incentive to tie their hands with BITs.

The reason why most countries engage in BITs is to compete for FDI. Some may even be triggered by BITs signed in neighbouring countries, especially within an economic block, to avoid diversion of investments. As can be inferred from the game-theoretic framework of BITs, a country that anticipates an increase in FDI inflow without any commitment to investment protection would most likely decline from participating in the BIT. This is because such participation raises the cost of expropriation for both current and future investments in the event that the host is required to compensate the foreign investor. According to the commitment theory, countries tie their hands upfront when they have credibility issues to indicate that they would not expropriate investments (Jandhyala, 2016). These results agree with the implications of Elkins *et al.* (2006), who perceived BITs as a form of competition between developing countries to attract foreign

investments (Guzman, 1998). Therefore, there is no reason why those with a higher probability of attracting investments should tie their hands with treaties. The results are even more closely related to Tobin and Busch (2010), who found that the positive effects of BITs began to decline in most countries after the 5th BIT and completely reversed in Bangladesh with 12 BITs to the extent that an optimal policy would have been no BIT.

In our case, competitive pressure for BITs proliferation reduces as countries gradually ascend to more competitive positions in attracting FDI. Therefore, when an African country is already in a position to attract such investments without participating in them, the incentive to signing more BITs would reduce significantly. This could happen over time as the economy grows and priorities change, investments become saturated, citizens acquire sufficient knowledge and capital to invest in capital intensive sectors that were not previously possible or maybe just another case of dynamic inconsistencies in governments' optimal policies described in Guzman (1998) and Aisbett (2007). Within this context, South Africa's increasing waves of revising and/or terminating previous investment treaties as the economy expands to reach a more competitive capital position in the international landscape is quite glaring. Whatever the case, an increase in a country's competitiveness to attract FDI would likely diminish its proclivity to signing more BITs over time in Africa.

b) Gross domestic product

The aim was to examine how BITs respond to changes in market size. Robust and consistent results showed that market size was a significant determinant of BITs. These results indicate that as the market size increased, countries become relatively more engaged in BITs. Jandhyala, Henisz and Mansfield (2011) arrived at similar results in a dyadic setting. Swenson (2005) in a monadic study of BITs signing also had similar results. The results also support the hypothesis that countries with economic features that theory predicts to enhance trade between nations have a higher proclivity to sign more BITs and TIPs (Baier & Bergstrand, 2004; Neumayer & Spess, 2005). Generally, a country with a larger domestic market should have less incentive to access foreign markets and countries at the same level of economic development should have more treaties with each other. Sornarajah (1986) specifically argued that treaty signing depended more on the political and economic environment rather than the creation of any legal structure for its protection.

c) Corruption

The positive impact of corruption was significant and robust to different model specifications. These results agree with Swenson (2005). Generally, countries with high levels of corruption have issues with credibility and investors understand the need to trade carefully with them. This mostly happens when there are doubts about the country's ability to equitably enforce contracts in which previous records of corruption are good indicators. Therefore, countries with high levels of

corruption may be judged as risky areas since they are prone to manipulation, either from other foreign investors or within the system and as a consequence, would be more likely to sign BITs than others known for their fair treatment of foreign investors. Therefore, controlling historical levels of corruption is necessary to fully explain country characteristics that influence BITs signing proclivity in Africa. If corruption is associated with risk, Swenson (2010) argues that countries would sign BITs when external assessments show that the country's risk should deter investments. This is because such corrupt countries cannot implement domestic reforms that can attract FDI.

d) Political institutions

The effect of political institutions on treaty signing supported our hypothesis that both democracies and non-democracies have a significant impact on adhering to international investment regimes. While democratic countries were less likely to participate in investment agreements, being an autocracy significantly contributed to investment treaty signing proclivity. The outcome that autocracies are more likely to cooperate under investment regimes relative to democracies was in sharp contrast to economic criteria that typically predict democracies to be more willing to enter into such contracts. Results lend credence to arguments in the commitment theory that BITs participation is driven by the need to protect foreign investments that are likely to face more risk under autocratic regimes (Jandhyala, Henisz, & Mansfield, 2011). The issue centres on expected credibility in enforcing contracts. Two democracies often have mutual trust for one another. Democratic nations with effective judiciary systems, strong reputations, transparent policies and respect of property rights are expected to have credibility in protecting foreign investments.

On the contrary, most autocracies are often fraught with the executive arm of governments strongly interfering in the judiciary. This lack of independence has often been a source of mistrust for the protection of foreign investments and investors would tend to demand alternate mediums of assurance. However, leaders in autocratic countries would typically benefit more from signing BITs relative to democracies as shown in their survival models when they import institutions that enhance property rights (Arias *et al.* 2018). The positive effect of BIT signing even gets stronger under dictatorial regimes due to higher reduced risk after commitment.

Poulsen and Aisbett (2013) reviewed that autocratic nations such as Belarus, Swaziland and Qatar have never been targeted for arbitration, while Canada, India and Mexico have been in the spotlight for at least 15, 19 and nine times, respectively. Although African countries have generally had fewer investor states disputes, 135 out of a total 613 cases brought under the ICSID Convention in 2017 involved African states and 45 per cent had their consent, which was mostly in the gas and oil sectors. The number reduced to 12 out of a total of 56 in 2018. Most cases involving Egypt that are settled have been decided in favour of the state. Cameroon, Equatorial

Guinea, Rwanda and other authoritarian regimes in Africa have been conspicuously absent from controversies surrounding investment regimes and in fewer cases where they were involved, such cases were decided in their favour.

According to Rosendorff and Shin (2015), autocratic leaders commit to international investment treaties more than their counterparts from democratic states who may perceive such regimes as substitutes for domestic institutions. Therefore, since BITs have a larger effect on curtailing enormous risks to investments in autocracies, the effect on investment flows should also be higher for an equitable trade-off (Rosendorff & Shin, 2012). Perhaps, these results could be due to differences in sample size. According to the Economic Intelligence Unit, data in 2019 showed that only Mauritius was a full democracy in Africa, there were seven flawed democracies, 24 hybrid democracies and 25 authoritarian regimes.

e) Business climate

The effect of business climate on BITs signing was positive, lending credence to our hypothesis that countries with good business climates should willingly commit to investment treaty regimes, despite only attaining marginal significance at .01 level. The first issue is always to recognise factors that determine a firm's investment decision. Perhaps, the choice is always between domestic investment and foreign investment if the domestic economy is already saturated. The profit function of these multinational corporations depends very much on economic as well as non-economic factors. A country with a good and sustained business climate will most likely be favourable for foreign capital. Such countries are also more likely to engage in business-friendly activities. Therefore, countries with a good business climate are likely to commit with international investment regimes.

6.4.2 International Investment agreements and FDI

i. Bilateral investment treaties

The first part of this objective was to examine the impact of BITs on FDI in Africa. Results showed a positive effect of BITs on FDI stocks which supported our hypothesis that BITs significantly attracted FDI. The result is robust to heteroscedasticity and consistent across different sample sizes and model specifications that control for market size, infrastructure and other macroeconomic fundamentals. Therefore, BITs meet their intended purpose of signalling a country's commitment to investment protection that attracts FDI. Although this positive impact of BITs varies significantly across African countries, there was no evidence suggesting that an increase in the number of BITs in any of the countries would lower the stock of FDI.

Neumayer and Spess (2005) were the first to arrive at such authoritative conclusions for developing countries. Most empirical studies after 2005 focusing on all developing countries concluded that BITs do influence FDI (Grosse & Trevino, 2005; UNCTAD, 2009; Haftel, 2010;

Busse, Königer & Nunnenkamp, 2010; Bhasin & Manocha, 2016). Unlike Min, Mujumdar and Rhim (2011), who found that the effect of BITs were positive in Asia, but decreased significantly after the signing of more BITs, squaring BITs and repeating the analysis in this study resulted in positive but insignificant effect on FDI, albeit with smaller magnitudes. This implies the possibility of future diminishing returns. However, we are confident that the positive impact of FDI was due to increased FDI stocks.

In a more recent study, Tobin and Rose-Ackerman (2011) controlled for endogeneity and arrived at similar conclusions. These results contradict those by Hallward-Driemeier (2003), Yackee (2007) and Aisbett (2007), who concluded that BITs were not important for FDI. The FGLS in Aisbett could be less efficient than OLS under small or medium samples. Although his study was in a dyadic setting, the two-step GMM in this study is generally stronger in handling endogeneity.

In order to ascertain that the positive effect of BITs was a result of new investments, we interacted BITs with the first lag of FDI stocks. The negative and significant effect of the interactive terms implied that the increase in FDI was a result of new investments attributed to foreign investors. A positive and significant coefficient would have meant that BITs signatories may have been a result of coercion from existing firms for governments to commit to investment treaties. This typically happens when foreign investors are either engaged in footloose operations or convince governments that they would relocate their firms to other countries with better investment climates if they failed to commit to investment regimes or carry out reforms (Elkins *et al.* 2006). In such situations, the increase in the number of BITs signed would be investor-driven and cannot lead to the significant creation of new foreign investments. This is because countries with a larger stock of FDI would be more inclined to sign new BITs than those at similar levels that were yet to attract significant FDI (Swenson, 2005).

To get details on the performance of FDI across different parts of the continent, a dummy variable on the country's landlocked status was similarly added. The results showed that, although landlocked countries attract fewer investments, their interactive effect with BITs when all other variables are zero was significantly associated with increased FDI on the continent. Generally, almost all landlocked countries in Africa either have a free trade agreement or investment treaties with other nations with coastal boundaries. It is not certain as to whether the increased FDI is as a result of regional economic blocks to which the economy belongs or FDI-specific increases. Disentangling these variances would be necessary for specific policies on FDI regimes.

In further analysis, the BITs variable was replaced with a dummy for each of the six major capital investing countries on the continent. Accordingly, the presence of French, US and South African BITs in countries was positively associated with increased FDI. However, the presence of a UK BIT was significantly negative. Yackee (2016a) had found that French BITs did not significantly increase the partner country's share of outward FDIs, while Zeng and Lu (2016) concluded that Chinese BITs had a positive impact on a partner country's FDI in China. The latter study further

emphasised that stronger BITs had a greater impact on FDI. These two studies recognise that BITs vary in their strength and insinuates that countries may wish to select a few powerful BITs and commit their investment regimes with them.

The presence of a US BIT had a larger positive impact on FDI stocks in Africa compared to other European BITs, which is in agreement with the literature. This was immediately followed by those with France, which has remained a dominant player in the African FDI landscape, especially in its previous colonies. The larger effect of OECD source country BITs may be with other OECD member states as established by Kerner (2009). However, the effects of US BITs are a generalisation and do not consider the specific substantive impact of US investments in treaty signing nations. Our observations were large enough (950) to be certain that this effect is stable, robust and would remain consistent under different specifications. Similar to Salacuse and Sullivan (2005), it is not clear whether this increase was due to US investments in partner countries or as a result of spillover effects from BITs signalling, a role that induced other foreign investments. Haftel (2010) in controlling for defects in model specifications argued that the positive effect of US BITs would only exist to the extent that they were ratified.

Generally, it is often argued that US BITs offer very high standards of protection that reduce risks associated with the business environment so that other countries can benefit from it (Salacuse, 1990). The immediate implication of these results is that BITs effectively contributed in fulfilling their signalling role and show of commitment by African countries to be investment friendly. However, a confirmatory analysis with FDI inflows as the dependent variable showed that Chinese BITs had the greatest impact on FDI in Africa. The results confirmed the changing patterns of FDI on the continent and the important role of new investors from Eurasia. This was not surprising as Chinese investments have been growing at a faster rate on the continent. China has also made enormous contributions in diversifying foreign investments in Africa.

ii. Treaties with investment provisions

The second half of our first hypothesis on IIAs was to examine whether TIPs significantly increased FDI in Africa. Three main treaties that were examined included AGOA, which is a free trade agreement for Sub-Saharan African countries with investment provisions; investment treaties with the European Union; and membership with the World Trade Organisation. The coefficient of membership with AGOA was positive, but not significant. However, its interactive effect with gross domestic product was positive and significant. This implies that the positive impact of the African Growth and Opportunity Act (AGO) initiative was only contingent on the existence of a larger market size. Therefore, an increase in a country's GDP that is also a member of AGOA would significantly attract FDI in Africa. Further moderating effects showed that autocracies significantly attenuated FDI benefits from the AGOA initiative while democracies

strengthened it. Generally, countries with good institutional quality were likely to benefit more as expected under the conditions to join the treaty.

An initial paper by Trent (2002) had suggested that FDI in SSA under the AGOA initiative was not going to be sustainable without adequate infrastructural development, skills, services and improvements in the investment climate. Bartels, Alladina and Lederer (2009) carried out a survey on FDI in SSA and concluded that the effects of political factors were more important than labour and production related considerations. A more recent study by Kassa and Coulibaly (2019) found that most gains from AGOA were from exports, while few other countries had also expanded production into manufacturing and other industrial goods. The researchers further attribute benefits to spillovers from increasing ICT infrastructure, improvement in legal institutions, property rights and labour market regulations which are rooted in AGOA's eligibility criteria. Therefore, our results are largely consistent with extant literature on the impact of BITs in Sub-Saharan Africa.

Furthermore, the hypothesis that TIPs with the European Union significantly improve FDI was rejected after controlling for gross domestic product, infrastructural development, trade openness and exchange rate. However, the effect became significant after interacting the presence of an EU treaty with gross domestic product. This implies that wealthier (large market size) African countries with an existing EU investment treaty were more likely to attract more FDI. These results corroborate those of Cardamone and Scoppola (2012), who found that EU outward FDI was gravitating towards countries with a larger market size. The authors further established that deep integration had a considerable impact on outward FDI into countries with existing EU PTA, albeit the magnitude reduced in developing countries. Further analysis showed that EU treaties were more strongly attracted towards autocracies in Africa than democracies whose coefficient was insignificant in the moderating effects. The effect was even greater with similar market sizes and larger differences in skilled labour. Gounder, Falvey and Rajaguru (2019) arrived at a similar conclusion. Therefore, these results are consistent with extant literature.

Finally, results on the impact of WTO accession on FDI showed that it was not significant. while its moderating effect with autocracies was negative and statistically significant. This implies that authoritarian regimes were less likely to benefit from increased FDI after joining the World Trade Organisation. Chemutai and Escaith (2017) carried out a similar study on the importance of WTO membership on FDI and arrived at inconclusive results. However, Büthe and Milner (2008) had found that political instability reduced FDI while membership with the WTO increased it. Hong (2008) similarly found that WTO membership increased FDI in China. Therefore, literature on the importance of WTO accession has remained inconclusive. Despite the inconsistencies, our results show that WTO accession is not a significant determinant of FDI in Africa.

6.4.3 Investment climate and foreign direct investment

a) Political institutional quality and foreign direct investment

The third objective of this study was to examine the impact of investment climate on FDI in Africa. Investment climate was defined to cover both the effects of political institutional structures and the business environment. Therefore, the first half of the hypothesis was that political institutions do not have a significant impact on FDI. Results obtained were puzzling because both theory and extant literature typically predict FDI to positively correlate with democratic institutions (Bellos & Subasat, 2012; Zheng, 2011; Busse & Hefeker, 2007; Jensen, 2003). However, democracies were less likely to attract FDI. Although we suspect these results to be due to the existence of fewer democracies in Africa, a positive result is still unlikely given Africa's challenges in building strong and sustainable democratic institutions.

These results align with Alfaro, Kalemli-Ozcan and Volosovych (2008, 2009) who argued that the failure of capital in moving from rich to poor countries was due to the persistence of weak institutions that cannot protect capital investments. The results also challenged the narrative that democracy and international investment regimes are substitutes for inclusive domestic institutions, serving the same purpose of offering strong protection of property rights from the perspective of foreign investors (Arias *et al.* 2018).

The moderating role of BITs with democracy produced a positive interactive effect on FDI that was strongly significant. These latter results imply that investment treaties substitute domestic institutions, which support the argument by Tobin and Rose-Ackerman (2011) that the effectiveness of BITs cannot be judged in isolation from the political and institutional environment where they are implemented. Although Tobin and Rose-Ackerman (2011) used political risk as a measure of institutions to conclude that BITs were complements and did not substitute for domestic investment environment, the use of democracy, autocracy and polity in this study that showed that BITs actually substitute domestic institutions is more specific and informative. According to Arias *et al.* (2018), risks of expropriation are often smaller in democracies and would fall further if they sign BITs. Consequently, the effect on foreign investments should be high. Results in this study are also similar to those by Blanton and Blanton (2012), who found that democracy had a negative impact on US outward FDI. However, the authors did not establish the combined effects of BITs and democracy.

Most empirical studies typically use either democracy or polity scores as a measure of the role of institutions on FDI. According to results in this study, the effect of polity was negative and highly significant in the first estimation. This effect was totally transformed to positive and strongly significant after moderation with BITs, corroborating those on democracy. This implies that institutional quality significantly attenuate FDI in the absence of BITs. However, the introduction of BITs in the investment regime acts as a substitute to domestic institutional quality. Peres, Ameer

and Xu (2018) argued that insignificance in the effect of institutions in developing countries relative to developed ones on FDI could be attributed to the weak structure of institutions.

On their part, autocracies were more likely to realise increased FDI in the absence of BITS, all else the same. The interactive effects of BITS with autocracies showed that an increase in the number of BITS in autocracies produced a saddle effect. Results showed that the interactive effects of BITS in autocracies diminish over time, suggesting an inverted U-curve relationship. Rosendorff and Shin (2012) argued that BITS are often signed by countries with opaque institutions and non-democratic political systems because they need them the most. It is not immediately clear why the signing of more investment treaties in autocracies correlate with the reduction of of FDI.

BITS are expected to reduce risk and make autocracies more attractive to FDI. Rosendorff and Shin (2015), argued that the high risks posed by autocracies often reduce significantly with BITS signing that can have a significant impact on FDI in the short run. Tobin and Busch (2010) further argue that BITS signing translates into high FDI inflow up to a certain number of BITS (i.e. ≤ 5 BITS) before the effect starts decreasing. The authors recommend that the best strategy for a nation is to choose a few right BITS with the right capital-exporting countries. However, we do not explicitly test at what level the interactive effect of BITS starts reducing FDI in autocracies. It could happen that investments at some point get saturated or BITS get terminated.

Results here are contrary to what has been obtained on regime type in traditional literature that typically finds democracies to more likely attract FDI since international investment treaties and good democratic institutions are often perceived as substitutes (Mansfield, Milner, & Rosendorff, 2000, 2002). However, results are in agreement with those of Zheng (2011) who argued that countries with more veto power would give investors more freedom, which is beneficial for FDI. In a similar study, Wisniewski and Pathan (2014) found that countries with presidential systems of governments, established political parties and where the executive controls all houses with lawmaking powers were more likely to attract FDI. Biglaiser and DeRouen (2006), however, found that FDI inflow was similar under both authoritarian and democratic regimes.

Further empirical analysis revealed that increased FDI could be explained by the fact that most authoritarian regimes stay in power for very long. As was seen in the result, an increase in regime durability was positively associated with FDI. This is because the longer the regime stays in power, the easier it becomes for the regime to develop and empower a strong and loyal elite class that prevents uprisings. Under such circumstances, either the regime coerces foreign investors to engage in joint ventures with elites or some foreign investors would prefer to jointly invest with the elite class in order to ensure that their investments would be safe and protected. Some literature has argued that investors are generally more interested in political stability than economic determinants of FDI (Abbott, 2000; Li & Resnick, 2003). Once again, this study differs

from previous ones in that both the effects of authoritarian regimes and democracies were tested on FDI, including their joint impact through polity scores.

Generally, most democracies in Africa are either flawed or hybrid regimes. Country ranking of democracies according to the Economic Intelligence Unit even showed that only Mauritius was a full democracy in 2019. Therefore, there are more autocracies than democracies in Africa and the results could be sensitive to differences in sample sizes across the two groups of political regimes. A more conclusive result could be arrived at by using an equal number of autocracies and democracies.

Similarly, executive constraints are another common measure of political institutions in empirical research. Its negative impact on FDI tallies with those in Fan *et al.* (2009), Jensen (2003) and Campos and Kinoshita (2010). Therefore, countries with too many constraints on decision-making at the executive attract less investment, perhaps because investors are not willing to go through many administrative bottlenecks, especially if they are aboriginals from countries with less institutionalised constraints.

Another staggering results was that of corruption. Although corruption did not have a significant effect on FDIs, its mediating effect with investment treaties became positive and strongly significant. The results suggests that the joint increase in BITs and corruption, everything being equal, would increase FDI in Africa. Typically, most empirical studies argue that corruption adds to the cost function of multinational enterprises and should discourage investments. Although there are still controversies on the effect of corruption in literature, these results are contrary to those in Epaphra and Massawe (2017), who found corruption to be a significant deterrence to FDI in five East African countries. Habib and Zurawicki (2002) concluded that investors avoid corrupt countries because such investments can lead to operational inefficiencies.

However, Egger and Winner (2006) had found that corruption was an impediment to FDI in developed countries but not the less developed ones. In using 73 developed and less development countries, Egger and Winner (2005) and Rodríguez-Pose and Cols (2017) found that corruption was a stimulant to FDI, which supported Leff (1964), who argued that it could help in circumventing both administrative and regulatory restrictions. Therefore, empirical results are still mixed and require more studies. Although risky areas sometimes provide an avenue for natural selection of productive investments from those with limited potentials for profitability, corruption is anti-developmental and the effect of such corruption-driven increases in BITs and FDI on the socio-economic development of countries can be expected to be negligible.

b) Business climate and foreign direct investment

The second half of the third objective was to investigate the impact of the business climate and its mediating effects with BITs in their relationship with foreign direct investment in Africa. The business climate was measured using two principal components of economic freedom (PC1 and

PC2). The coefficient of component 1(PC1), which loaded strongly on property rights, business freedom, monetary freedom, investment freedom and financial freedom, was positive but not statistically significant. Interacting PC1 with democracy and autocracy similarly produced positive but non-trivial effects on FDI. Clearly, these results suggest that investors may be more concerned about international institutions that can guarantee credible commitment to investment protection. However, interacting PC1 and GDP resulted in a positive coefficient, which suggests that the size of the market remains important in every investment decision. The interaction of PC2 and BITs produced a subtle effect on FDI, although the individual effects of BITs were strongly significant, while PC2 was only weakly significant. Further analysis of the interactive effect of economic freedom and autocracy showed a strongly negative impact on FDI. This supports the argument that unilateral economic reforms may increase the attractiveness of a country, but cannot be considered credible by foreign investors (Büthe & Milner, 2009).

On its part, the positive and significant impact of the interactive terms of democracy with the business climate demonstrated that foreign investors can trust unilateral liberalisations in democratic countries and those with stronger institutions. Analysing from a broader perspective, these results display the triviality of economic freedom as an independent determining factor on FDI in Africa. Therefore, the effectiveness of the business environment in attracting FDI is only contingent on improvements in institutional quality and other macroeconomic fundamentals. These results were similar when using the global index of economic freedom instead of its principal components. However, the interactive effect of global economic freedom with BITs was positive but only weakly significant.

The results are in contrast with those obtained by Moussa, Çaha and Karagözc (2016), who used a global index of economic freedom and found a significant impact on FDI in fragile and conflict nations. Ghazalian and Amponsem (2019) in a similar study found mixed results on the influence of various components of economic freedom on FDI. On their part, Cebula and Clark (2014) found economic freedom to be an important determinant of economic growth for OECD countries. Sambharya and Rasheed (2015) found that economic freedom was important for FDI. Zghidi, Sghaier and Abida (2016) attempted a solution to endogeneity by using a macro-panel for Northern African countries to conclude that the impact of FDI on economic growth was contingent on economic freedom, despite using $N < T$, which is often problematic in GMM approaches. This is a similar situation to results of Ullah *et al.* (2018) in their analysis of FDI in six South Asian countries using the GMM.

A common feature of these results is that they mostly relied on static panel models to arrive at their conclusions. By their nature, panel data models are susceptible to endogeneity. In the strict sense, all panel models are dynamic owing to the inclusion of time dimensions. This dynamic feature, therefore, implies that there is a need to control for endogeneity. In controlling for endogeneity, therefore, economic freedom is not a significant determinant of FDI. Another reason

why results in this study differ from extant literature is the use of a composite measure of economic freedom. The method of principal components has an advantage in that it usually drops components that do not explain significant variance and should, therefore, better capture the impact of economic freedom. These results are robust to heteroskedasticity and consistent over different model specifications.

6.4.4 Other determinants of foreign direct investment

Besides the impact of these policy and institutional determinants of FDI in Africa, a host of other fundamental determinants were also examined in the study. Firstly, the history of FDI stocks was the most important factor in determining FDI. Many studies have asserted that FDI is generally attracted to countries with existing stocks of investments in order to benefit from established economies of scale. Most empirical studies on FDI using dynamic models have similarly arrived at this outcome (Bhasin & Manocha, 2016; Adeleye et al. 2017; Nkoa, 2018; Ullah *et al.* 2018; Green, 2018). Therefore, countries with a good record of previous investments are more attractive to FDI in Africa.

Similarly, market size remains a positive and strongly significant impact of FDIs most models in the estimations. Therefore, countries with a larger gross domestic product (wealthier countries) are more attractive for investments on the continent. In Africa, most investments are a combination of both market-seeking and resource-oriented FDI, which makes the findings realistic. Although extant literature tends to arrive at mixed findings on gross domestic product, these results are in agreement with the market size hypothesis and those in most studies (Kumari & Sharma, 2017; Lokesha & Leelavathy, 2012; Aqeel, Nishat, & Bilquees, 2005; Shamsuddin, 1994). Asiedu (2005) even recommends the formation of economic blocks for small economies in order to increase the strength of their markets.

Trade openness was similarly a positive and significant determinant of FDI in Africa. Typically, trade openness is an important step towards liberalisation that promotes the inflow of capital investments. However, empirical estimations have often produced a saddle effect on the relevance of trade openness (Nasser, 2007). Dima (2016) and Anyanwu and Yameogo (2012) found similar results in their studies on the impact of FDIs. Liargovas and Skandalis (2012) established that the positive impact of trade openness on FDI only occurred in the longrun. Results on the impact of openness to trade on FDI in this thesis are more robust and consistent. Therefore, openness of a country is an important liberalisation mechanism that can enhance the flow of investments into Africa.

Furthermore, the impact of macroeconomic stability was investigated using inflation rate and exchange rate. The impact of inflation on FDI was positive, statistically significant and consistent over different model specifications, which was not in line with the expectations. A general increase in the price level could mean that the country's currency with respect to the US dollars is losing

its value, which makes investment less costly to investors. In practice, inflation destroys the value of domestic currencies and may have severe repercussions on the value of profits repatriated. Results on the impact of exchange rates were inconclusive because the signs of the estimated coefficient were not consistent under different model specifications. Macro-economic instability is established in traditional literature to have a negative impact on FDI. Strat, Davidescu and Paul (2015) postulated that countries with low inflation, devoid of both exchange and interest rate fluctuations are more attractive to foreign investors.

Another determinant of FDI was the second component of infrastructural development. The component loaded strongly under principal component analysis on the number of railway lines, education and gross savings. Therefore, improvements in these components would be expected to increase foreign direct investment in Africa. Investments in infrastructure enhance private sector activities by lowering the cost of production, increasing operational efficiency and opening new markets. Literature has mostly agreed that infrastructure is an important determinant of FDIs (Basu, Hicks & Sappey, 2006; Becerril Torres *et al.* 2009). These results add to existing studies on the role of infrastructure, but with a more representative measure based on an index that retains only factors explaining the most variance in components of infrastructural development.

Foreign aid is an important part of economic diplomacy and has contributed significantly to the advancement of both social and economic development of developing countries and Africa in particular. Results in this study showed that FDI is significantly attracted to countries that receive more foreign aid. Theoretically, foreign aid facilitates FDI by financing investment projects that increase productivity of capital (Quazi, Williams, Baldwin, Vesey, & Ballentine, 2014). For instance, the Marshal Plan was a very successful project for the reconstruction and stabilisation of Europe and other regions that were destroyed during WWII. Chauvet and Mesplé-Somps (2006) also found that foreign aid may compensate for weak flows of FDI in Africa. Although this pro-aid view sounds plausible, anti-aid proponents argue that foreign aid facilitates the sustenance of inefficient and corrupt governments (Weisskopf, 1972). Results in this study lend credence to theoretical expectations and further support those of Asiedu, Jin and Nandwa (2009) who argued that foreign aid can mitigate adverse effects from risks of expropriation on FDI.

Finally, one of the most important determinants of FDI in Africa has been natural resources often measured with natural resource rents. Most empirical studies typically predict FDI to flow towards countries with abundant natural resources. This has been widely studied and demonstrated to hold in the case of Africa (Asiedu, 2006, 2013; Vinesh, Boopendra & Hemraze, 2014). However, although the coefficient of natural resource rents was positive in this study, it did not attain statistical significance. The significance of natural resource rents was contingent on BITs and market size. These results may be a result of the increasing desire by African countries to diversify investments into the manufacturing and tertiary activities. Notwithstanding, the resource sector

remains one of the most lucrative in Africa and continue to attract massive inflows of investments, especially in crude oil and mineral extraction.

6.5 Chapter conclusion

This chapter has presented results on the impact of IIAs on foreign direct investment in Africa. It was shown that BITs were a significant determinant of FDI. Furthermore, it was shown that the presence of an American BIT in a country had a stronger signalling effect on FDI. The significance of TIPs was largely contingent on investment climate and macroeconomic fundamentals. It was shown that institutional quality was a significant determinant of FDI and there were evidences that BITs substitute domestic institutions. Finally, the results showed consistent effects of the role of most macro-economic fundamentals as predictors of FDIs. Conclusively, IIAs are nontrivial for FDI in Africa. The next chapter presents a summary of the thesis and concludes the study. It would also present both theoretical and practical implications of the results, while the last section would suggest areas for future research on FDI.

7. Chapter 7 Summary, policy implications and conclusions

7.1 Summary of chapters

7.1.1 Chapter 1

This study sought to investigate the impact of IIAs on FDI in Africa. It was structured into seven chapters. In Chapter 1, the study was introduced with a detailed background, rationale of the study and main objectives. Accordingly, BITs started in the 1960s, proliferated in the 1990s and have seemingly started going through senescence as evident by the gradual increase in treaties terminated, revisions of some and an increase in the number of investment dispute settlements registered annually. Most earlier studies on the importance of these agreements did not find any significant impact on FDI, suggesting that they may not have been serving the intended purpose. Although most studies after 2005 started presenting evidence of a positive FDI-IIA relationship, Aisbett (2007) still argued that properly accounting for endogeneity resulted in BITs losing their initially strong impact on FDI and there was also no evidence of BITs signalling a better investment climate.

Perhaps, most of these studies started from a rather too general perspective. Swenson (2005) argues that a better strategy would be to start by examining the characteristics of countries that sign BITs, which has largely been ignored in empirical studies. Accordingly, such knowledge can permit one to properly examine whether investment treaties have actually translated into an *ex-post* increase in FDI. Similarly, current foreign investors can sometimes pressure host governments to sign BITs as a condition for them not to relocate their investments to other countries with better investment climates. In such situations, an increase in the number of BITs may not lead to the creation of new investments. Elkins *et al.* (2006) also perceived the diffusion of BITs to be a function of increasing competition for capital. Taking into consideration these dynamics and their relevance in making an appraisal of investment treaties, the first chapter of the study aimed to present and justify the research. Accordingly, the first objective of the study was to examine factors that account for the proclivity of investment treaty signing.

Furthermore, the overarching goal of IIAs is always to reduce political risk and stimulate the inflow of FDIs. Such treaties therefore enhance the protection of property rights, reduce the risk of expropriation and improve the investment climate. Initial literature on the impact of IIAs mostly focused on how they influenced a country's ability to attract FDI and their role as either complements or substitutes to a host country's domestic institutions. Most of these studies have generally examined bilateral FDI flows between capital-exporting and less developed countries within a dyadic setting. Although some studies examined the aggregate inflow of FDI in order to capture the signalling or spillover effects of BITs, empirical results continue to be mixed. Surprisingly, most studies only included a few African countries in their samples and there is no

known rigorous study that has exclusively focused on the case of Africa, creating a gap that needs to be surmounted in the literature. It is because of these reasons that the second objective of the study, stated in Chapter 1, was to examine the impact of IIAs on FDI in Africa.

The case of Africa becomes peculiar due to its complex colonial and neo-colonial history. Almost all institutional structures in Africa were imported from European countries during the colonial period and have largely been maintained since independence, operating in a similar fashion to those of their colonial masters. African states are still confronted with numerous institutional challenges due to its cultural diversity and the integration these Western institutions in their political systems that mostly fail to reflect its socio-cultural realities.

These institutions are seemingly weak in the eyes of foreign investors and may not be relied on for the safety of their investments, especially in a continent that has more and an increasing number of authoritarian regimes. In most cases, the impact of IIAs depends on domestic institutions that enforce property rights or generally, the investment climate. However, there is always possibility of reverse causality between these variables that needs to be taken into consideration. Literature postulates that IIAs can either substitute or complement for good investment climate. In Africa, one would expect such agreements to substitute the often weak and less transparent investment policies. Therefore, the last objective, as stated in Chapter 1, was to examine the impact of investment climate on FDI in Africa. The remaining sections in Chapter 1 presented the hypotheses and contributions of the study.

7.1.2 Chapter 2

Chapter 2 presents conceptual and relevant theoretical literature to the study. Firstly, the chapter conceptualises FDI as a form of equity, intra-company loans, reinvestment earnings within a given period of time. In the chapter, it is shown that FDI is just one main source of international capital mobility. According to the International Monetary Fund, others include foreign portfolio investments, financial derivatives and others. The different types of FDI that included horizontal (market-seeking), vertical (efficiency-seeking) and conglomerate FDIs were also briefly reviewed. The concept of FDI and its categorisations in terms of flows and stocks were also discussed extensively. Similarly, IIAs and investment climate were also conceptualised.

Furthermore, the chapter presents an extensive review of related theories. Accordingly, traditional theories of international trade such as Ricardo's theory of comparative advantage and the portfolio allocation theories were adopted to explain patterns of FDI when interest on its flows started growing. These theories were later abandoned due to their inability to properly explain its flows over time. Therefore, the chapter explores the differential rate of return, portfolio allocation, internalisation, eclectic paradigm, investment development path and currency area theories in detail.

Apparently, the eclectic paradigm is the most widely cited theory of FDI developed by John Dunning, a prolific researcher and contributor to the field of international business. Section 2.4 reviewed theories of trade agreements. Generally, investment treaties are motivated by the fact that most countries with weak political institutions often have fewer incentives or challenges with committing to contracts. Therefore, the section reviews the commitment theory of trade, the contract theory of trade and the terms of trade-externality theory of trade in detail. In every theory reviewed, its empirical applications and usefulness in the case of Africa are discussed. The commitment theory of trade is, perhaps, the most widely adopted theory in studies on the impact of investment agreements. Many researchers have also integrated and analysed the theory in game-theoretic models of commitment to trade agreements.

Chapter 2 concludes that, although there have been an increase in the number of theoretical studies on FDI, most of these theories are not directly quantifiable in empirical studies. This is due in part because FDI is a complex construct that makes it difficult for researchers to come out with an all-encapsulating theory. Although the earlier theories still retain their explanatory power on the changing patterns of current FDI, there is a need for more theoretical studies, especially to identify what works well under which circumstances, given the current state of globalisation and the quantum leap of economic activities in the service sector. Furthermore, the relevance of each theory depends on what is being analysed and whether the research is adopting a micro -or macro-economic approach in the analysis.

7.1.3 Chapter 3

Chapter 3 reviewed relevant empirical literature to the study and identified gaps in the field. Firstly, empirical studies on the impact of BITs are reviewed. Apparently, Hallward-Driemeier (2003) was the first major empirical study that brought a new wave of empirical studies on investment treaties. These earlier studies did not find a significant impact of treaties on BITs. Neumayer and Spess (2005) employed a larger sample to show that BITs mattered for FDI. This study further provided evidence of the complementarity between BITs and domestic institutions and another limited evidence showing that BITs could also substitute domestic institutions. Several later studies continued the debate and only differed in terms of whether they embraced a dyadic or non-dyadic approach, method of data collection and the growing interest in accounting for endogeneity.

In section 3.3, empirical studies on free trade agreements and other TIPs were reviewed. These included those on the impact of AGOA in attracting FDI, accession to the WTO, European Union treaties and other regional trade integration initiatives. Most of these studies have generally agreed that free trade agreements matter for FDI and some even postulate that the formation of a free trade agreement often precedes a successful BIT.

Section 3.4 presents empirical literature on the investment climate. In this section, studies on the effects of political institutions, economic freedom, corruption, governance and other non-

economic determinants of FDI are examined. Section 3.5 reviews the traditional economic determinants of FDIs, while section 3.6 presents research gaps that need to be filled. The chapter noted that, although there has been enormous research on the impact of IIAs, most of the studies have either focused on North America, Europe and Asia. There are also many studies in developing countries on the impact of BITs, but these studies mostly included only a few African countries. Therefore, there was a need to add to literature by focusing specifically on Africa, because of the popularity of investment treaties on the continent.

7.1.4 Chapter 4

Chapter 4 was an analysis of the performance of FDI and other macroeconomic fundamentals in the study environment. In section 4.2, the chapter reviewed the global patterns of FDI and regional patterns in relation to the African continent. It further reviewed regional distributions of FDI in Africa and identified major foreign investors and recipients on the continent. Generally, FDI has mostly been attracted towards countries with heavy endowments of natural resources. In terms of regional distributions, North Africa remains the largest recipient of total FDI into Africa while South Africa has also contributed heavily in investing in other African countries.

Although a large amount of FDI still gravitates towards countries with natural resource abundance, there is an emerging pattern of FDI not flowing exclusively into the resource sectors of African economies. There has been an increase in diversified investments, especially from China and other emerging economies from around the world flowing into the continent. Therefore, this section reviewed the nature of Greenfield investments, sectors and recipients. The section shows that China, France, Germany, India and South Africa have been the largest Greenfield investors on the continent while Egypt, Nigeria, South Africa, Angola and Algeria have been the main recipients of new investments on the continent from 2003 to 2018.

Similarly, the diffusion of IIAs is also reviewed in section 4.3. In 1947, the generalised agreements on trade and tariffs was also created to liberalise global trade, which shifted focus from bilateral to multilateral trade agreements. This was later transformed to the World Trade Organisation. Generally, BITs increased exponentially in the 1990s to become the dominant international legal framework governing investments between states. As at November 2019, there were already more than 3200 signed BITs with more than 2339 in force. It is noted in the chapter that the rate of increase in international investment dispute settlements calls for concern, in empirical research. This has also led to the termination of several investment treaties as there is growing pessimism about their relevance in serving the intended purpose, despite property rights that countries relinquish with little or no obligations from foreign investors. Several free trade, preferential trade agreements and other TIPs in which African countries are participants are identified. In section 4.3, the chapter reviewed the performance of African economies in terms of economic growth, trade and other social indicators of development. The last but one section of the chapter examines

the political environment in Africa. Worthy of note from the chapter is the apparent changing patterns in investments from resource-based activities into the manufacturing and service sectors.

7.1.5 Chapter 5

Chapter 5 presented the methods and estimation strategies in the study. In section 5.2, the research design employed in the study was summarised. Accordingly, the non-experimental design was employed. Specifically, Menard (2008) describes the design to be a longitudinal panel design. Section 5.3 explained the study setting and sample selection. It was presented that the study covered 50 selected African countries over the years 2000 to 2018, making a period of 19 years. Small island countries such as Sao Tome and Principe and Seychelles were excluded from the sample, while mainland countries such as Somalia, South Sudan and Western Sahara were removed due to insufficient data.

Section 5.4 presented the game-theoretic framework and empirical framework used in the study. The innovative game-theoretic framework models BITs as a dynamic process of decision-making between countries with the ultimate aim of maximising their welfare functions. This approach is supported by the fact that most theories of FDI do not explicitly identify how various determinants should be measured and incorporated in econometric models. Therefore, modelling investment treaties in the form of strategic interaction has the advantage of identifying how the events unfold over time, with various payoffs and consequent reactions of host countries and MNEs. In section 5.4.2, this was translated into an empirical framework using the generalised method of moments, which formed the bedrock of our econometric analysis. The succeeding sections in the chapter presented the various models estimated, variable definitions, data management, data requirements in a panel setting and issues relating to model diagnostics, endogeneity of BITs and investment climate. Finally, section 5.8 presented the outcome from principal components analysis for both infrastructural development and economic freedom as our measure of the business climate.

7.1.6 Chapter 6

Chapter 6 presented empirical results from the study. It was structured into three main sections, i.e. descriptive statistics, regression results and discussions. Section 6.1 presented the trend analysis, summary statistics, preliminary diagnostics of normality, bivariate correlation analysis, tests for homogeneity and panel tests for stationarity.

The first objective of the study was to examine the characteristics of countries that sign BITs. Results showed that BITs treaty signing proclivity could be explained by increased competition for capital (FDI share). An increase in the volume of FDI into a country would significantly reduce its desire for investment treaties. Gross domestic product was a positive and significant

determinant of investment treaties. Countries with higher levels of corruption were likely to sign more treaties.

Similarly, the first component of economic freedom was positive and significant, implying that countries with good investment climates were more likely to commit to investment regimes. Finally, regime type was perhaps the most important determinant of treaty signing. It was shown that democracies were less likely to sign BITs, while authoritarian regimes were more likely to commit to international investment regimes. These results were in sharp contrast to empirical expectations.

Secondly, the chapter presented results on the impact of BITs on FDI in Africa. Results showed the positive and consistent impact of FDI under different model specifications. Besides BITs as an important determinant, previous FDI, trade openness, inflation, infrastructure, gross domestic product, foreign aid and resource rents were important factors with a positive and consistent impact on FDI in Africa. The impact of exchange rate as a measure of macroeconomic instability was generally inconclusive due to inconsistency of the signs and significance under different models. Furthermore, it was shown that landlocked countries significantly attracted FDI only when they had signed more BITs. Finally, the United States' BITs were found to be more important than every other BIT. Their positive impact on aggregate FDI was immediately followed by French and South African BITs. These results implied that their presence was closely associated with increased FDI stocks in a country.

Similar to BITs, results on TIPs showed its positive impact on the economy was mostly contingent on gross domestic product, natural resource endowments and quality of institutions in the country. Therefore, the moderating effects of AGOA and these variables had a positive impact on FDI stocks in the country. This was similar for European Union TIPs, but not for WTO membership. However, interacting autocracies and WTO accession resulted in a negative impact on FDI stocks on the continent.

Lastly, results on the impact of investment climate on FDI stocks were presented. Accordingly, democracies had a negative and significant impact on FDI. These results were in sharp contrast to our expectations. However, interacting democracies with BITs produced a U-shaped relationship. Therefore, there was a clear substitution effect of BITs on institutional quality in Africa. This was similar for authoritarian regimes that were more likely to realise increased FDI in the absence of BITs.

However, the interaction of BITs with autocracy scores produced a saddle effect on investments. Accordingly, the previously positive impact of the interactive effect of autocracies and BITs became negative and insignificant, suggesting another substitution effect. These are further confirmed with similar estimations that used the polity scores and still established the presence of a substitution effect of BITs. The unexpected results could be explained by regime durability.

Similarly, the combined effects of corruption and BITs are shown to be positive and significant on FDI in Africa. The section ended with findings on the impact of business climate on FDI. According to those results, only the interactive effects of the first component of economic freedom with BITs were shown to negatively influence FDI. However, the interactive effects of the investment climate and larger market size are shown in the appendix to be significant, suggesting that wealthier countries attract more investment. Results were also discussed in section 6.3 alongside substantial empirical evidence and their implications.

7.2 Contributions of the study

This study extends literature on the impact of IIAs in Africa. Previous studies mostly coalesced all developing countries despite their existing differences (Neumayer & Spess, 2005; Aisbett, 2007; Jandhyala & Weiner, 2014). There is also no prior research on the performance of BITs in landlocked and LDCs. Similarly, the research, to our knowledge, is the first to explore the effectiveness of specific BITs with top investing countries and their interactive effects with fundamental economic, political and business climate variables in Africa.

The study also examined the determinants of BITs signing proclivity in Africa. Results showed that corruption, gross domestic product and, weak institutions were significant determinants BITs participation in Africa. Furthermore, it was found that as a country's competitive advantage on FDI increases, countries would begin to have less incentives to participate in BITs. The results support the hypothesis for each of the outlined covariates. These have not been previously established in any other study in Africa, and have important implications for governments' future commitments to investment treaties that need to be factored and monitored by potential investors.

An important hypothesis to the study was that BITs do not induce foreign direct investment in Africa. Unlike the most commonly used dyadic approach in empirical literature, the study employed a monadic approach. Results underscored the importance of BITS in attracting FDI and also demonstrate their potency in landlocked and LDCs. The unique results on the effectiveness of BITs in landlocked and LDCs should set the foundation for more studies on BITs within those contexts. Policymakers now have the basis from which to start deliberations on investment policies in landlocked and LDCs. The study also makes a contribution by identifying countries with stronger investment potentials. This is important because results indicated the possibility of diminishing returns after squaring BITs. This is good for countries that wish to enter into BITs with Western countries as they can have viable options from which to choose few BITs and commitment to investment protection.

The second objective of this study was to verify the hypothesis that multilateral treaties with investment provisions do not have an impact on foreign direct investment in Africa. Although some studies have examined the importance of European Union treaties on outward FDI, there are only

a few of such in Africa. The study sheds more light on these treaties and gives African countries a sense of whether to engage in direct EU treaties or EU member states. It was observed that the significance of EU treaties was contingent on market and resource factors, while specific BITs with some EU members were more effective. This is important since such results may imply that EU investors are more concerned about specific BITs with their home countries. African countries would therefore need to consider their choices carefully when tying their hands with BITs.

Finally, the study approaches the use of institutional quality in a novel way that can provide specific targeted policies to governments and potential investors in Africa. The use of democracy, autocracy, polity and regime durability gives a sense of how different institutions perform with respect to FDI in Africa. This is important because policies can easily be designed with specific targets unlike the commonly used broad definition of institutional quality with polity scores in most studies, or risk in others. It was shown that political institutions significantly varied in their performance on FDI. Their effectiveness was contingent on the presence of BITs. This evidence is important for potential investors in Africa since it can guide them in selecting countries to locate their investments based on available empirical evidence.

7.3 Policy implications

7.3.1 Practical implications

Results on the determinants of BITs signing imply that democracies are less likely to commit to investment regimes, autocracies are more likely to commit, countries with high levels of corruption are more likely to commit, those with good economic freedom are less likely to commit and those with a larger market size are more likely to commit. These results generally imply that any country with doubts about its ability to enforce property rights and protect foreign investment would most likely commit to investment regimes in order to benefit from FDI.

Results from this study also showed that BITs have a positive and significant impact on FDI in Africa. There was further evidence that the increase in BITs was not due to coercion from existing firms for governments to sign them in order to protect their investments. The question that arise from these results is: Should African governments be recommended to sign more BITS? The answer to such a question is not straightforward. Results in this study were shown to be consistent over different model specifications. We are certain, based on these robust empirical evidence that an increase in the number of BITs would translate to an increase in foreign investments. Therefore, BITs meet their intended purpose of signalling the existence of a safe investment climate that attracts FDI. The positive impact of BITs becomes stronger in the presence of abundant natural resources and a larger market size. Therefore, countries should adopt policies that improve the middle class and strengthen domestic market demands. We expect this positive impact of BITs to vary across African countries, but find no evidence at this stage to expect that an increase in the number of BITs in any of the countries would lower the stock of FDI. However,

we conjecture that having a few right BITs that create a greater impact would be better due to potential diminishing returns. Furthermore, these results do not provide any evidence that the cost of investment treaties outweighs benefits and only further studies beyond its scope can verify this hypothesis.

However, African countries should consider the type of countries involved in the BITs and choose those with a track record of contributing to outward investments in other nations. Generally, having a few right BITs that create a greater impact would be better than those in which countries relinquish more property rights without realizing corresponding benefits in the form of increased FDI. Furthermore, these results do not provide any evidence that the cost of investment treaties outweigh the benefits and only further studies beyond the scope of this dissertation can make such a declaration.

Furthermore, BITs have a great deal of potential in attracting FDI in African countries and enhancing economic growth due to their signalling and stabilising effects that the response often happens almost immediately. This is contrary to long-term policy reforms that sometimes never materialise due to the dynamic nature of the global economy. However, BITs have remained almost the same over time seeking to address only conditions of entry, standards of treatment, expropriation rights and the settlement of investment disputes. They mostly fail to address the cultural specificities of the host nations in Africa and responsibilities of investors. Given that Africa is so diverse, BITs that work in one part of the continent may not be effective in another part. BITs also tend to ignore domestic investments in the negotiation process, which may hamper their effectiveness.

Similarly, treaties vary significantly with their implications. Although recent treaties are incorporating clauses on dispute settlement and obligations of foreign enterprises, African countries must consider participating in treaties that protect foreign investments as well as give them an opportunity to pursue their local development policies without interference. Any foreign investment that crowds out domestic investment will likely be counterproductive and must be taken note of during negotiations. Therefore, the content of each treaty, the wording and legal implications matter for governments' flexibility in promoting domestic and regional investment flows.

Further analysis revealed that BITs vary by type of source country and there were some that actually reduced the inflow of FDI on the continent. While US and French BITs are important countries to consider trading with, South Africa is also contributing greatly to intra-African investments. Trading with South Africa would be highly recommended since both countries are going through similar experiences in terms of economic growth and other social challenges. The spillover effects on other African economies could be greater than from other high technology countries with a wider knowledge-gap and having more sophisticated methods of production.

We are not certain how the presence of British BITs obstructs the growth of FDI stocks in African countries and which countries those were. It may be that British investors engage in contracts that do not permit the establishment of similar production facilities, thereby hindering the possibility of competition; the UK's focus may have been on signing investment treaties with countries that do not attract significant investment from the UK or their investment may just be attracted to certain sectors of the economy that do not create a significant impact on aggregate investments. One thing is certain, the UK is still very much active in their former colonies with strong political and economic influence. A more practical solution would be to examine the terms of contracts from British BITs, their roles, obligations of investors and legal implications. However, the UK's plans to be a top G7 investor on the continent after Brexit is expected to present many opportunities for African countries.

Results on the impact of TIPs showed that, although their primary aim is not to encourage FDI, countries with a good market size and institutions receive additional investment as benefits. Taken individually, their effect on FDI is not strong. Therefore, members of AGOA with larger markets and good institutions should expect to realise increased US investments. Besides the previous recommendations on enhancing domestic demand by ensuring a stable growth in the middle class, sound macro-economic policies that guarantee economic growth, exchange rate stability and improvements in infrastructural development, countries should adhere to international human rights, promote the rule of law and uphold democratic values in order to benefit from US investments. For instance, while democracies are likely to realise an increase in investments by up .02 per cent, authoritarian regimes will lose approximately the same amount of investments. Therefore, autocracies should improve their legal institutional frameworks and property rights protection in order to realise benefits from AGOA in terms of gains in investments. However, a more specific study that decomposes FDI into various sectors is recommended to establish with certainty whether US investments have been flowing only to specific sectors of the economies.

Results on the impact of democracies and autocracies are insightful. Firstly, in the absence of international investment treaties, democracies would not attract significant investments while autocracies will. The implication is that foreign investors perceive African democracies to be weak and, cannot offer strong protection for their investments. These results imply that African governments still need to invest in developing strong democratic institutions that literature generally considers to be substitutes with international investment regimes. In the case of Africa, domestic institutions and international investment regimes are not substitutes/interchangeable in their function on protecting foreign investments from an investor's perspective, but IIAs can actually replace domestic institutions. Participating in BITs is one way through which these institutions can be improved. This is shown on the positive interactive effects of BITs with democracy validated by the insignificant effect of autocracies at high levels of BITs. These results imply that when democracies start participating in BITs, authoritarian regimes become less

attractive to foreign investors since the previously low risks posed by democracies (from investors perspectives) further diminish when they commit to international investment regimes. Therefore, BITs substitute domestic institutions because they limit governments' abilities to expropriate foreign investments through embarking on obsolescing bargain.

Secondly, the positive interactive effects of BITs with corruption on FDI signals trouble in terms of the contribution of such investment to economic development. Generally, corrupt countries cannot be able to implement domestic reforms. If MNEs bribe their way to investments, there are high chances that such practices will be persistent to the extent that the benefits will only remain within the elite class as the cycle of bribery continues. Therefore, corruption is anti-developmental, and even if it makes things easier for investors locating in countries with too many executive constraints, the long-run implications would be devastating for the host country. In fact, autocracies and strong executive constraints are very good friends to corruption, while transparency and democracy are an enemy to corruption. Therefore, African countries should adopt policies that promote transparency, fight corruption and promote democratic accountability.

Similarly, investors are generally interested in stability, especially political stability. Results on the impact of regime durability imply that the longer a particular regime stays in power, the more attractive it becomes for FDIs. However, the interactive effects of BITs with regime durability produced a negative effect on FDI. Generally, when a particular regime stays in power for too long, it starts losing trust and business confidence, which is a disincentive to foreign investors. Such regimes are usually characterised by the recurrence of political upheavals, especially in Africa where most authoritarian regimes keep manipulating the constitution towards their end of office term in order to remain in power.

Furthermore, African countries with limited constraints on the flow of capital, and sectors of investment both domestically and across borders attract more foreign investments. It is common to find countries with translucent investment laws and inefficient implementation, red tape and restrictions on foreign purchase of real estates, many legal procedures to repatriate profits which have damaging consequences on capital mobility and development (Bah & Fang, 2015). Designing policies to attract FDI, therefore, requires consideration of the sensitive role played by these constraints and the importance of investment freedom.

Finally, for African countries to optimise their investments, both fundamental macro-economic determinants and domestic investment climate need to be enhanced. A good investment climate often gives investors an opportunity to receive optimal benefits from improving levels of market size, improvements in infrastructural development, macroeconomic stability and trade openness. These collectively attract investment that can translate to desired economic growth in Africa.

7.3.2 Theoretical implications

The current study offers fascinating implications on existing theories of foreign direct investment and IIAs. Results on the impact of BITs support arguments in the game-theoretic model that countries commit to investment treaties in order to maximize their welfare functions. In the case of FDI, the positive impact of BITs can be perceived as victory on the part of African countries. The existence of contracts serves to mitigate risks of opportunistic behaviours, often associated with expropriation due to dynamic inconsistencies in hosts' policies. In principle, this effect only occurs when there is credible commitment. A successful history of commitment to contracts breeds trust between trading partners that promotes FDI. Thomas and Worrall (1994) opined that the agreements may even be self-enforcing if countries anticipate to have mutual benefits in future. This suggests that a more refined theory of FDI in relation to IIAs should employ an integrated approach that considers the commitment and contract theories that prevent disputes by improving coordination between contracting parties.

Results on the impact of gross domestic product also lend credence to the market size hypothesis that most investments are market-oriented and countries with a larger market would attract a greater quantum of FDI. This would typically occur when an economy has grown to a level where it can permit the exploitation of economies of scale, which may be a result of improvements in the middle class or an expanding population that provides a larger market for outputs of MNCs. This is further supported by the positive impact of infrastructural development and natural resource rents. Therefore, findings in this study support the positive relationship between inflow of capital and the growth of African economies predicted in the market size hypothesis.

According to Dunning's approach in the OLI paradigm, this would correspond with the L in his eclectic theory of FDI as a determining factor of international production. These factors constitute the bedrock of market-seeking and resource-seeking FDI in Africa. Therefore, African countries that possess more location-specific advantages are likely to attract more FDI and the effect improves over time. This is expatiated in the investment development path theory (IDP), where Dunning argued that development induces structural changes in the economy that have systematic relationships with patterns of FDI flows. Accordingly, these countries should be between the second and third phases of the IDP (Dunning & Narula, 1996), where location-specific factors sufficiently play a role in inbound FDI. The poor performance of FDI in least developed and landlocked countries further supports these theories due to limited location advantages that attract FDI. However, their positive effect after interaction with BITs shows improvements in location advantages that are related to the host country's policies. This is similar for the effect of investment climate variables that only became significant after interaction with BITs.

Results on the impact of exchange rate theory were inconclusive for most specifications which generally cast doubts about the importance of relative powers of currencies in influencing the flow of FDI. The expectation, according to the real exchange rate theory, is that a reduction in the real rate of exchange would translate into lower wages and production costs relative to those of its foreign counterparts which enhances the locational advantages by increasing return rates on investments. This is so because of improvement in the country's competitiveness and economic exposure. However, the ambiguous effects in this study are similar to the conclusion of Stevens (1998). The underlying theory of real exchange rate therefore needs more examination that should consider both undervalued and overvalued currencies.

Finally, the negative impact of corruption perception index supports the portfolio diversification theory in its argument that investors seek to maximise expected returns by taking a quantifiable amount of risk. At the macro-economic level, risk could come in terms of lack of transparency in investment laws, corruption, conflicts, executive constraints or the poor business environment. Whatever the nature of risk, these results elucidate the importance of including risk in the investment equation when choosing the location of foreign investments which is generally in support of the portfolio diversification theory.

7.4 Study limitations and future research

The focus of this study was on the signalling impact of IIAs on aggregate FDI in Africa. It does not show the specific bilateral flow of investments or whether specific investments with some countries actually increase investment from those countries. We believe that a more detailed study that treats countries as dyads should be conducted to complement the results in this study.

Similarly, there are different types of international investment treaties. This study considered only the impact of BITs and TIPs. Future studies should examine the importance of double taxation treaties on FDI given that African countries now have more than 400 of them. There is an emerging literature that shows that countries that agree to participate in avoiding Double Taxation attract more investments. Therefore, while signing a bilateral investment treaty is necessary, adhering to DTTs could even be more important in attracting FDI in Africa.

Additionally, there is the emergence of new investors from Asia and Europe in Africa. For instance, the increasing presence of Russia, China and Turkey has been in the spotlight on international media. Although the media has been pessimistic about the importance of these countries and their role in contributing to African development, a confirmatory analysis in this research showed that Chinese investments contributed enormously when the dependent variable was FDI inflows. Therefore, there is a need for more studies on the effectiveness of specific BITs that capture contemporary economic challenges and the changing patterns of FDI in Africa.

Furthermore, there is a growing number of international investment disputes and the number of treaties being terminated by African countries. These call for detailed investigations of the causes. Many researchers have argued that attention needs to be paid to the wording of most investment treaties. Others recommend a regional approach to investment treaties from African countries. While analysis of the content of BITs was beyond the scope of this study, further research that makes a content analysis of specific BITs, rights and obligations of investors and the roles of governments is necessary to identify cause of the rising number of arbitration.

It is not clear exactly why democracies are less likely to attract FDI while autocracies attract more investments until the coming of BITs. Some researchers have attributed this to the fact that BITs promotes the survival of leaders in authoritarian regimes. Whatever the case, there is a need to investigate why autocracies are more likely to commit to international investment regimes.

7.5 General conclusion

Recent years have been characterised by dramatic socio-economic and political transformations in Africa that have attracted significant scholarship across disparate disciplines. Among the most prominent ones that have permeated academic discourses within the African intelligentsia are ideals of “Africa rising” and “African century”. Accordingly, the movement advocates for peace, stability, economic growth and also seeks to evoke a sense of Afro-optimism not only within African youths, but also to nuance its negative perception often portrayed to the rest of the world (Obeng-Odoom, 2015) by international media and other organisations with a broader objective of making the 21st century, one of African renaissance. Similarly, Economists are not entirely free from these denigrations towards Africa, a process that Jerven (2015) attributed to the ahistorical nature of fundamental economic models employed in their analysis.

Achieving shared prosperity in Africa requires a multifaceted strategy that appreciates and integrates both endogenous and exogenous approaches- and also factors intracontinental heterogeneity-, although growth per se has often been misconstrued from an African perspective [see several interventions from Jerven (2015), and others by Obeng-Odoom (2015) and Padayachee (2020)]. Accordingly, most analysis focus on Africa's economic tragedy during the “lost decades” (mid-1970s to the late 1990s)- a period within which some African countries even made progress-, while in their overwhelming majority, tended to ignore the gains registered immediately after independence.

In most instances, instead of researchers examining why African economies recurrently grow and decline over time, the predominant question in research on why Africa has failed has been rather too vague to provide a relevant and insightful starting point for meaningful discourse, and often culminates in wrong inferences. Therefore, the pessimism expressed in literature on the history of economic growth in Africa, the attribution of its failures to poor governance, and the comparism

of Africa's institutions with ideal ones that never exist constitute a source of misconception about the continent, especially when using economic growth and its determinants as a barometer for Africa's performance (Jerven, 2015).

To this end, foreign direct investment and its changing nature across different institutional contexts have continued to attract substantial interest from policy makers and researchers in the continent because of the important role it plays in facilitating economic development. Literature has extensively argued that it provides an important avenue for job creation, innovation, technology spillover, export-growth and economic growth. However, the process of attracting FDI and ensuring its sustainable inflow continues to be a difficult conundrum in the continent despite it providing the second largest market in terms of population, and the richest in terms of natural resource endowments. This has been explained in various ways by different philosophical schools, a process which also remained sharply contradictory. Given the growing challenges with institutionalism and neoclassicism, this study transcends the old orthodoxy and situates itself within the confines of new institutional economics to determine the substantive impact of domestic and international institutions on foreign direct investment.

Therefore, the aim of this thesis was to examine the impact of IIAs on FDI in Africa. Specifically, the study assessed the impact of bilateral and multilateral investment treaties on FDI stocks on the continent. It further examined the impact of investment climate and its moderating effects on foreign investments. Prior to these main objectives and motivated by Swenson (2005) and Elkins *et al.* (2006), the study explored the treaty signing proclivity of African countries as a prerequisite to examining their effectiveness. Although a number of related studies had previously been done on developing countries in general and most often including African countries with varying sample sizes, no known rigorous study has been found on this on the continent except for reviews and other reports by the United Nations Economic Commission for Africa (2016) and UNCTAD. The conspicuous absence of studies that focus specifically on Africa and the ambiguity in results from those that include some African countries make it impossible to appreciate the relevance of investment regimes within the context of African countries as a starting point from which to base justified policy recommendations.

Furthermore, despite global challenges in attracting FDI flows, anecdotal evidence suggests that there continues to be a positive trend in Africa due to the performance of its economies, higher comparative returns on investments, an improving consumer market or middle class and the discovery of more natural resources on the continent. Given that the aim of IIAs is to attract investments and considering the costs often involved in committing to these treaties that mostly come with little or no obligations from foreign investors, there was a need for this study in Africa in order to understand whether the proliferation of IIAs could be justified by promises of increased investment from home countries as benefits. We focused on the signalling effects of these

agreements to examine their impact on aggregate FDI stocks, identify the most effective treaties and disentangle their relationship with domestic investment climate.

Substantial literature was reviewed that addresses theoretical, empirical and contextual considerations. The general underdevelopment of FDI theories and challenges in applying existing ones in empirical studies motivated the choice of an innovative game-theoretic framework to model international investment regimes as a form of strategic choices between treaty signing parties that factored in the dynamic inconsistencies in the choices of host governments. Generally, the study focused on 50 selected African countries over a period of 19 years, starting from 2000, and employed the generalised method of moments as the main econometric method of analysis. The study, therefore utilised the most recent datasets and sophisticated econometric technique that meticulously addressed challenges faced by previous researchers to arrive at robust results that meets contemporaneous realities and the experiences of African countries in attracting FDI.

Initial analysis showed that authoritarian regimes were more likely to commit to investment regimes than democracies. However, countries with a history of corruption and larger markets also had a higher proclivity to participate in investment treaties. Further results showed a significantly positive impact of BITs on FDI in Africa. These results were robust and consistent under different model specifications. BITs with the United States and France were the most important within the context of signalling commitment and attracting FDI, while South African BITs were also strongly significant in countries where they exist.

In terms of TIPs such as AGOA, EU treaties and membership with the WTO, their significance was conditional on the existence of other macroeconomic fundamentals such as the size of the market, natural resource abundance and non-economic factors such as the prevailing political and business climate. In fact, studies specifically on AGOA arrive at the conclusion that benefits from such free and preferential trade agreements in developing countries typically accrue in the form of export gains, the very purpose for their establishment. US investments under the AGOA initiative were particularly sensitive to the type of political regimes in place.

The study provided sufficient evidence that the investment climate of countries had a significant influence on the location of FDI and that the introduction of BITs into the equation significantly substituted domestic investment climate. These results are unique in that besides focusing on the effects of BITs in Africa, they incorporated the two main types of political regimes (democracies and autocracies) as opposed to previous studies that mostly focused on institutional quality, often defined with either polity or democracy, thereby obliterating specific effects of different types of regimes. The use of polity scores in the analysis further validated these results in terms of their relation to other existing studies. Results on traditional determinants of FDI were largely consistent with existing empirical literature, but for the impact of macroeconomic stability (inflation and exchange rate), which was inconclusive. Therefore, every policy on the locational

determinants of FDI must consider addressing the role of BITS and their interactive effects with the host's investment climate.

BIBLIOGRAPHY

- Abbott, F. M. (2000). NAFTA and the Legalization of World Politics: a Case Study. *International Organization*, 54, 519–547.
- Abbott, P., & Kallio, P. K. (1996). Implications of Game Theory for International Agricultural Trade. *American Journal of Agricultural Economics*, 78(3), , 738-744. Retrieved from 10.2307/1243297
- Abdella, E. A. (2018). The effect of Corruption, Trade Openness and Political Stability on Foreign Direct Investment: Empirical Evidence from BRIC Countries. *International Journal of Advanced and Applied Sciences*, 5(3), 32-38.
- Aboal, D., Noya, N., & Rius, A. (2012). *The evidence of the impact on investment rates of changes in the enforcement of contracts. a systematic review*. London: Institute of Education, University of London.
- Abrego, L., Amado, M. A., Gursoy, T., Garth, N., & Hector, P.-S. (2019). *The African Continental Free Trade Agreement: Welfare Gains Estimates from a General Equilibrium Model*. Retrieved from <https://www.imf.org/en/Publications/WP/Issues/2019/06/07/The-African-Continental-Free-Trade-Agreement-Welfare-Gains-Estimates-from-a-General-46881>
- Acemoglu, D. (2009). *The Solow Growth Model: Introduction to Modern Economic Growth*. Princeton: Princeton University Press.
- Acemoglu, D., & Robinson, J. (2010). Why is Africa poor? *Economic History of Developing Regions*, 25(1), 21–50.
- Acemoglu, D., & Robinson, J. (2012). *Why Nations Fail: The origins of power, prosperity, and poverty*. New York NY: Random House/Crown.
- Acemoglu, D., & Robinson, J. A. (2005). The Rise of Europe: Atlantic Trade, Institutional Change, and Economic Growth. *American Economic Review*, 95(3), 546–579.
- Acemoglu, D., Johnson, S., & Robinson, J. A. (2001). The Colonial Origins of Comparative Development: An Empirical Investigation. *American Economic Review*, 91(5), 1369-1401.
- Adeleye, N., Osabuohien, E., & Bowale, E. (2017). The Role of Institutions in the Finance-inequality nexus in Sub-Saharan Africa. *Journal of Contextual Economics*, 137(1), 73-192. doi:10.3790/jce.137.1-2.173
- African Development Bank. (2018). *2018 Annual Report*. Abidjan: African Development Bank Group.
- African Economic Outlook. (2019). *Macroeconomic Performance and Prospects: Jobs, Growth, and Firm Dynamism*. African Development Bank Group.
- African Growth and Opportunity Act. (2018). *Trade and Investment Statistics*. Washington, D.C.: Office of the United States Trade Representative. Retrieved from <https://agoa.info/about-agoa.html>

- African Trade Report 2019. (2019). *African Trade in a Digital World: Transforming Africa's Trade*. Heliopolis, Cairo: African Export-Import Bank. Retrieved from www.afreximbank.com
- Aisbett, E. (2007). *Bilateral Investment Treaties and Foreign Direct Investment: Correlation versus Causation*. University of California at Berkeley. Munich: Munich Personal RePEc Archive.
- Aisbett, E., Busse, M., & Nunnenkamp, P. (2018). Bilateral investment treaties as deterrents of host-country discretion: the impact of investor-state disputes on foreign direct investment in developing countries. *Rev World Econ*, 154, 119–155.
doi:<https://doi.org/10.1007/s10290-017-0285-1>
- Ajide, K. B., & Eregha, P. B. (2014). Economic Freedom and Foreign Direct Investment in Ecowas Countries: A Panel Data Analysis. *Applied Econometrics and International Development*, 14 (2), 163-174.
- Akame, R. J. (2015). *The Impact of Infrastructural Development on Economic Growth in Cameroon*. Buea: An Unpublished Masters thesis Submitted to the University of Buea.
- Alfaro, L., Kalemli-Ozcan, S., & Volosovych, V. (2007). Capital Flows in a Globalized World: The role of Policies and institutions. In . In E. Sebastian (Ed.), *Capital Controls and Capital Flows in Emerging Economies: Policies, Practices, and Consequences* (pp. 19-71). Chicago: University of Chicago Press.
- Alfaro, L., Kalemli-Ozcan, S., & Volosovych, V. (2008). Why doesn't Capital flow from Rich to Poor Countries? An Empirical Investigation. *The Review of Economics and Statistics*, 90(2), 347–368.
- Ali, F. A., Fiess, N., & MacDonald, R. (2010). Do Institutions Matter for Foreign Direct Investment? *Open Economies Review*, 21(2), 201-219.
- Allee, T., & Peinhardt, C. (2011). Contingent Credibility: The Impact of Investment Treaty Violations on Foreign Direct Investment. *International Organization*, 65(3), 401-432.
- Al-Louzi, R. (2017). Bilateral Investment Treaties as Tools for Enhancing Foreign Investment Climate and Increasing Competitiveness. *Manchester Journal of International Economic Law*, 14(1), 69-91.
- Almsafir, M. K., Nor, S., & Al-Shibami, A. H. (2011). Locational Related Determinants of Foreign Direct Investment in Yemen: Dunning's Eclectic Paradigm Perspective. *Australian Journal of Basic and Applied Sciences*, 5(8), 394-404.
- Altenburg, T., & Von-Drachenfels, C. (2006, Jun 16). The 'New Minimalist Approach' to Private-sector Development: A critical assessment. *Development Policy Review*(24(4), 387-411), 387-411. doi:10.1111/j.1467-7679.2006.00331.x
- Aluko, O. (2020). The foreign aid–foreign direct investment relationship in Africa: The mediating role of institutional quality and financial development. *Economic Affairs*, 40, 77– 84. Retrieved from <https://doi.org/10.1111/ecaf.12386>

- Antràs, P., & Staiger, R. W. (2012). Offshoring and the Role of Trade Agreements. *American Economic Review*, 102(7), 3140–3183.
- Anyanwu, J. C. (2012). Why Does Foreign Direct Investment Go Where It Goes?: New Evidence From African Countries. *Annals of Economics and Finance*, 13(2), 425–462.
- Anyanwu, J. C., & Yameogo, N. D. (2015, Sept 17). What drives foreign direct investments into west africa? an empirical investigation. *African Development Review*, 27(3), 199-215. doi:10.1111/1467-8268.12141
- Aqeel, A., Nishat, M., & Bilquees, F. (2005). The Determinants of Foreign Direct Investment in Pakistan [with Comments]. *Papers and Proceedings PART II Twentieth Annual General Meeting and Conference of the Pakistan Society of Development Economists Islamabad*. 43, pp. 651-664. Islamabad: Pakistan Institute of Development Economics.
- Ardiyanto, F. (2012). *Foreign Direct Investment and Corruption (Doctoral dissertation)*. Colorado State University.
- Arellano, M., & Bond, S. (1991). Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations. *The Review of Economic Studies*, 58(2), 277-297. doi:10.2307/2297968
- Arellano, M., & Bover, O. (1995). Another look at the instrumental variable estimation of error-components models. *Journal of Econometrics*, 68(1), 29 - 51. doi:10.1016/0304-4076(94)01642-D
- Arias, E., Hollyer, J. R., & Rosendorff, P. B. (2018). Cooperative Autocracies: Leader Survival, Creditworthiness and Bilateral Investment Treaties. *American Journal of Political Science*, 62(4), 905-921.
- Artadi, E. V., & Sala-i-Martin, X. (2003). *The Economic Tragedy of the XXth century: Growth in Africa (No. w9865)* . National Bureau of Economic Research.
- Aschauer, D. A. (1989). Is public expenditure productive? *Journal of monetary economics*, 23(2), 177-200.
- Asiedu, E. (2004). Policy Reform and Foreign Direct Investment in Africa: Absolute Progress but Relative Decline. *Development Policy Review*, 22(1), 41-48.
- Asiedu, E. (2005). Foreign Direct Investment in Africa : The Role of Natural Resources, Market Size, Government Policy, Institutions and Political Instability. *The World Economy*.
- Asiedu, E. (2006). Foreign Direct Investment in Africa: The Role of Natural Resources, Market Size, Government Policy, Institutions and Political Instability. *The World Economy*, 29 (1), 63-77. doi:10.1111/j.1467-9701.2006.00758.x
- Asiedu, E. (2013). *Foreign direct investment, natural resources and institutions*. International Growth Centre, Working Paper Series.
- Asiedu, E., Jin, Y., & Nandwa, B. (2009). Does Foreign Aid Mitigate the Adverse Effect of Expropriation Risk on Foreign Direct Investment? *Journal of International Economics*, 78(2), 268-275. doi:10.1016/j.jinteco.2009.03.004

- Athukorala, P.-c. (2013). *Intra-Regional FDI and Economic Integration in South Asia: Trends, Patterns and Prospects*. United Nations Conference on Trade and Development.
- AUC/OECD. (2018). *Africa's Development Dynamics 2018: Growth, Jobs and Inequalities*. Addis Ababa: AUC. Retrieved from <https://doi.org/10.1787/9789264302501-en>
- Azikiwe, A. (2018, April 5). *African Continental Free Trade Area: Prospects and Problems for Implementation*. Retrieved from Pambazuka News: Voices for Freedom and Justice: <https://www.pambazuka.org/pan-africanism/african-continental-free-trade-area-prospects-and-problems-implementation>
- Baccini, L., & Urpelainen, J. (2012). Strategic Side Payments: Preferential Trading Agreements, Economic Reform, and Foreign Aid. *The Journal of Politics*, 4(74), 932–949.
- Bagwell, K., & Staiger, R. W. (1999). An Economic Theory of GATT. *The American Economic Review*, 89(1), 215-248.
- Bagwell, K., & Staiger, R. W. (2002). *The Economics of the World Trading System*. The MIT Press.
- Bagwell, K., & Staiger, R. W. (2011). What Do Trade Negotiators Negotiate About? Empirical Evidence from the World Trade Organization. *The American Economic Review*, 101(4), 1238--1273. doi:10.2307/23045898
- Bah, E. H., & Fang, L. (2015). Impact of the Business Environment on Output and Productivity in Africa. *Journal of Development Economics*, 114, 159-171. Retrieved from <https://doi.org/10.1016/j.jdeveco.2015.01.001>
- Baier, S. L., & Bergstrand, J. H. (2004). Economic Determinants of Free Trade Agreements. *Journal of International Economics*, 64(1), 29-63.
- Baldwin, R. E., & Clarke, R. N. (1987). Game-modeling Multilateral Trade Negotiations. *Journal of Policy Modeling*, 9(2), 257-284. Retrieved from [https://doi.org/10.1016/0161-8938\(87\)90028-7](https://doi.org/10.1016/0161-8938(87)90028-7)
- Banga, R. (2003, Mar). *Impact of Government Policies and Investment Agreements on FDI Inflows*. New Delhi: Indian Council for Research on International Economic Relations.
- Banga, R. (2006). Do Investment Agreements Matter? *Journal of Economic Integration*, 21(1), 40-63.
- Barajas, M. A., Chami, M. R., & Yousefi, M. R. (2013). *The Finance and Growth Nexus Re-Examined: Do All Countries Benefit Equally?*. International Monetary Fund.
- Barajas, M. A., Chami, M. R., & Yousefi, M. R. (2013). The Finance and Growth nexus re-examined: Do all countries benefit equally? *International Monetary Fund*, 13-130.
- Bartels, F. L., Alladina, S. N., & Lederer, S. (2009). Foreign Direct Investment in Sub-Saharan Africa: Motivating Factors and Policy Issues. *Journal of African Business*, 10(2), 141-162.

- Bartels, F. L., Alladina, S. N., & Lederer, S. (2009). Foreign Direct Investment in Sub-Saharan Africa: Motivating Factors and Policy Issues. *Journal of African Business*, 10(2), 141-162. doi:10.1080/15228910903187791
- Basu, P., Hicks, J., & Sappey, R. (2006). Free Trade Agreements and Investment: A Chinese Perspective. *Agenda: A Journal of Policy Analysis and Reform*, 13(2), 179–192.
- Bayraktar, N. (2013). Foreign direct investment and investment climate. *Procedia Economics and Finance*, 5, 83 - 92.
- Becerril Torres, O. U., Alvarez Ayuso, I. C., Del Moral Barrera, L. E., & Vergara GonzAlez, R. (2009). Indicador de infraestructuras productivas por entidad federativa en México, 1970-2003. *Gestión y política pública*, 18, 379 - 438.
- Bellos, S., & Subasat, T. (2012). Governance and Foreign Direct Investment: A Panel Gravity Model Approach. *International Review of Applied Economics*, 26(3), 303-328. doi:10.1080/02692171.2011.587110
- Bénassy-Quéré, A., Coupet, M., & Mayer, T. (2007). Institutional Determinants of Foreign Direct Investment. *The World Economy*, 764-782. doi:10.1111/j.1467-9701.2007.01022.x
- Benteniotis, A., Delitheou, V., & Podimatas, E. (2020). Protection Standards in Bilateral Investment Treaties and Their Contribution in Attracting Foreign Direct Investment. In *In Eurasian Economic Perspectives* (pp. 141-151). Springer, Cham.
- Beshkar, M., & Bond, E. W. (2017). Cap and Escape in Trade Agreements. *American Economic Journal: Microeconomics*, 9(4), 171-202. doi:10.1257/mic.20160218
- Beugelsdijk, S., Hennart, J.-F., Slangen, A., & Smeets, R. (2010). Why and How FDI Stocks are a Biased Measure of MNE Affiliate Activity. *Journal of International Business Studies*, 41, 1444–59.
- Bhasin, N., & Manocha, R. (2016). Do Bilateral Investment Treaties Promote FDI Inflows: Evidence from India. *The Journal for Decision Makers*, 41(4), 275–287. doi:10.1177/0256090916666681
- Biglaiser, G., & DeRouen, K. (2006). Economic Reforms and Inflows of Foreign Direct Investment in Latin America. *Latin American Research Review*, 41(1), 51–75. Retrieved from www.jstor.org/stable/3662784
- Blanton, R., & Blanton, S. (2012). Rights, Institutions, and Foreign Direct Investment: An Empirical Assessment. *Foreign Policy Analysis*, 8(4), 431-452. doi:10.1111/j.1743-8594.2011.00161.x
- Blanton, S. L., & Blanton, R. G. (2007). What Attracts Foreign Investors? An Examination of Human Rights and Foreign Direct Investment. *The Journal of Politics*, 69(1), 143-155. doi:10.1111/j.1468-2508.2007.00500.x
- Blomstrom, M., Lipsey, R., & Zegan, M. (1994). *“What explains developing country growth?”*. Cambridge, Massachusetts: NBER Working Paper No. 4132, National Bureau for Economic Research, .

- Blundell, R., & Bond, S. (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics*, 87(1), 115-143. doi:[https://doi.org/10.1016/S0304-4076\(98\)00009-8](https://doi.org/10.1016/S0304-4076(98)00009-8)
- Boddewyn, J. J. (1985). Theories of foreign direct investment and divestment: A classificatory note. *Management International Review*, 25(1), 57-65. Retrieved from <http://www.jstor.org/stable/40227740>
- Bolton, P., & Dewatripont, M. (2005). *Contract theory*. MIT Press.
- Bonnitcha, J. (2017). *Assessing the Impacts of Investment Treaties: Overview of the evidence*. Manitoba: International Institute for Sustainable Development.
- Borensztein, E., Gregorio, J. D., & Lee, J. W. (1998). How Does Foreign Direct Investment Affect Economic Growth? in *Journal of International Economics*, 45, 115–135.
- Botrić, V., & Škuflić, L. (2006). Main Determinants of Foreign Direct Investment in the Southeast European Countries. *Transition Studies Review*, 13(2), 359–377. doi:10.1007/s11300-006-0110-3
- Boudier-Bensebaa, F. (2008). FDI-assisted development in the light of the investment development path paradigm: Evidence from Central and Eastern European countries. *Transnational Corporations*, 17(1), 37–67.
- Braumoeller, B. F. (2004). Hypothesis Testing and Multiplicative Interaction Terms. *International Organization*, 58(4), 807-820. doi:10.1017/S0020818304040251
- Brouthers, L. E., Brouthers, K. D., & Werner, S. (1999). Is Dunning's eclectic framework descriptive or normative? *Journal of International Business Studies*, 30(4), 831-844.
- Buch, C. M., Kleinert, J., Lipponer, A., Toubal, F., & Baldwin, R. (2005). Determinants and effects of foreign direct investment: evidence from German firm-level data. *Economic Policy*, 20(41), 52–110. doi:<https://doi.org/10.1111/j.1468-0327.2005.00133.x>
- Buckley, P. J. (2014). Forty years of internalisation theory and the multinational enterprise. *Multinational Business Review*, 22(3), 227-245. Retrieved from <https://doi.org/10.1108/MBR-06-2014-0022>
- Buckley, P. J., & Casson, M. (1976). *The Future of Multinational Enterprise*. London: The Macmillan Press LTD. doi:10.1007/978-1-349-02899-3
- Buckley, P. J., & Casson, M. C. (2009). The Internalisation Theory of the Multinational Enterprise: A Review of the Progress of a Research Agenda after 30 Years. *Journal of International Business Studies*, 40(9), 1563-1580.
- Buckley, P. J., & Castro, F. B. (1998). The Investment Development Path: The case of Portugal. *Transnational Corporations*, 1–15.
- Busse, M., & Hefeker, C. (2007). Political Risk, Institutions and Foreign Direct Investment. *European Journal of Political Economy*, 23, 397-415.
- Busse, M., & Hefeker, C. (2007). Political Risk, Institutions and Foreign Direct Investment. *European Journal of Political Economy*, 23, 397-415. doi:10.1016/j.ejpoleco.2006.02.003

- Busse, M., Königer, J., & Nunnenkamp, P. (2010). FDI promotion through Bilateral Investment Treaties: more than a bit? *Review of World Economics / Weltwirtschaftliches Archiv*, 146(1), 147-177.
- Büthe, T., & Milner, H. V. (2008). The Politics of Foreign Direct Investment into Developing countries: Increasing FDI through International trade Agreements? *American Journal of Political science*, 52(4), 741-762.
- Büthe, T., & Milner, H. V. (2009). Bilateral investment treaties and foreign direct investment: A Political Analysis. *Bilateral Investment Treaties, Double Taxation Treaties, and Investment Flows*, 171-225. doi:10.1093/acprof:oso/9780195388534.003.0006.
- Calvet, A. L. (1981). A Synthesis of Foreign Direct Investment Theories and Theories of the Multinational Firm. *Journal of International Business Studies*, 43-59.
- Campello, M., Galvao, A. F., & Ted, J. (2019). Testing for Slope Heterogeneity Bias in Panel Data Models. *Journal of Business and Economic Statistics*, 37(4), 749-760. doi:10.1080/07350015.2017.1421545
- Campolmi, A., Fadinger, H., & Forlati, C. (2012). *Trade Policy: Home Market Effect versus Terms-of-Trade Externality: Working Papers 201302*, . Center for Fiscal Policy, Swiss Federal Institute of Technology Lausanne.
- Campos, N. F., & Kinoshita, Y. (2010). Structural reforms, financial liberalization, and foreign direct investment. . *IMF Staff Papers*,, 57 (2) , 326–365. Retrieved from <http://www.jstor.org/stable/25681049>
- Cardamone, P., & Scoppola, M. (2012). The Impact of EU Preferential Trade Agreements on Foreign Direct Investment. *The World Economy*, 1473-1501. doi: 10.1111/j.1467-9701.2012.01434.x
- Casson, M. (2015). Coase and International Business: The Origin and Development of Internalisation Theory. *Managerial and Decision Economics*, 36, 55–66. doi:10.1002/mde.2706
- Cebula, R. J., & Clark, J. (2014). The Effects of Economic Freedom, Regulatory Quality and Taxation On the Level of Per Capita Real Income: A Preliminary Analysis for OECD Nations and Non-G8 OECD Nations. *Applied Economics*, 46(31), 3836-3848. doi:10.1080/00036846.2014.943885
- Çevis, İ., & Camurdan, B. (2007). The economic determinants of foreign direct investment in developing countries and transition economies. *The Pakistan Development Review*, 46(3), 285–299. Retrieved from <http://www.jstor.org/stable/41261160>
- Chala, B. W., & Lee, H.-H. (2015). Do Regional Trade Agreements Increase Bilateral Greenfield Investments? *Journal of Economic Integration*, 30(4), 680-707. Retrieved from <https://www.jstor.org/stable/43630955>
- Chang, H. J. (2011). Institutions and economic development: theory, policy and history. *Journal of Institutional Economics*, 7(4), 473-498. doi:10.1017/S1744137410000378

- Chemutai, V., & Escaith, H. (2017). *An Empirical Assessment of the Economic Effects of WTO Accession and its Commitments*. World Trade Organization, Economic Research and Statistics Division.
- Cherif, M., & Dreger, C. (2018). Do regional trade agreements stimulate FDI? Evidence for the Agadir, MERCOSUR and AFTA regions. *Rev Dev Econ*, 22, 1263–1277. Retrieved from <https://doi.org/10.1111/rode.12381>
- Chuku, C., & Onye, K. (2019). Macroeconomic Consequences of State Fragility in Sub-Saharan Africa. *Review of Development Economics*, 23(3), 1101-1140.
- Clougherty, J. A., & Grajek, M. (2006, November). The Impact of ISO 9000 Diffusion on Trade and FDI: A New Institutional Analysis (Discussion Paper Series of SFB/TR 15 Governance and the Efficiency of Economic Systems No. 179). *Free University of Berlin, Humboldt University of Berlin, University of Bonn, University of Mannheim, University of Munich*.
- Coarse, R. H. (1937). The Nature of the Firm. *Economica*, 386-405.
- Collier, P. (2007). Why the poorest countries are failing and what can be done about it. *World Institute of Development Economic Research*, 2, 1-3.
- Contractora, F. J., Dangol, R., Nuruzzamana, N., & Raghunath, S. (2020). How do Country Regulations and Business Environment Impact Foreign Direct Investment (FDI) Inflows? *International Business Review*, 29. Retrieved from <https://doi.org/10.1016/j.ibusrev.2019.101640>
- Cox, M. (2008). *Security and Justice: Measuring the Development Returns –A Review of Knowledge*. Agulhas Development Consultants Ltd. Retrieved from <http://agulhas.co.uk>
- Curcucu, S. E., Dvorak, T., & Warnock, F. E. (2008). Cross-Border Returns Differentials. *The Quarterly Journal of Economics*, 123(4), 1495–1530.
- Curcucu, S. E., Thomas, C. P., & Warnock, F. E. (2013). On Returns Differentials. *Journal of International Money and Finance*, 36, 1-25.
- Dagbanja, D. N. (2019). Can African Countries attract investments without bilateral investment treaties? The Ghanaian case. *Australasian Review of African Studies*, 40(2), 71-89.
- Darity, W. A., & Triplett, R. E. (2008). *Ethnicity and economic development*. Chapters.
- Daude, C., & Stein, E. (2007). The Quality of Institutions and Foreign Direct Investment. *Economics & Politics*, 19(3), 317-344.
- Day, G. S. (1981). The Product Life Cycle: Analysis and Applications Issues. *Journal of Marketing*, 45(4), 60–67.
- Demir, F. (2016). Effects of FDI Flows on Institutional Development: Does It Matter Where the Investors are from? *World Development*, 78, 341–359. Retrieved from <http://dx.doi.org/10.1016/j.worlddev.2015.10.001>
- Denisia, V. (2010). Foreign Direct Investment Theories: An Overview of the Main FDI Theories. *European Journal of Interdisciplinary Studies*(3), 53-59.

- Dennis, B., & Lainez, C. (2005). *A Portfolio Diversification Motive for FDI: Theory and Evidence*. University of the Pacific.
- Dima, S. (2016). Globalisation, Trade Openness and Foreign Direct Investment in Romania. *Studia Universitatis Vasile Goldiș, Arad-Seria Științe Economice*, 26(4), 41-53.
- Dkhili, H., & Dhiab, L. (2018). The Relationship between Economic Freedom and FDI versus Economic Growth: Evidence From The GCC Countries. *Journal of Risk and Financial Management*, 11(4), 81. Retrieved from <https://doi.org/10.3390/jrfm11040081>
- Doing Business. (2014). *Doing Business 2015: Going Beyond Efficiency*. The World Bank. Retrieved from <https://elibrary.worldbank.org/doi/abs/10.1596/978-1-4648-0351-2>
- Dollar, D., & Kraay, A. (2003, January). Institutions, Trade, and Growth. *Journal of Monetary Economics*, 50(1), 133-162. Retrieved from <https://ideas.repec.org/a/eee/moneco/v50y2003i1p133-162.html>
- Dollar, D., Hallward-Driemeier, M., & Mengistae, T. (2006). Investment Climate and International Integration. *World Development*, 34(9), 1498-1516. doi:10.1016/j.worlddev.2006.05.001
- Dornbusch, R. (1992). The Case for Trade Liberalization in Developing Countries. *Journal of Economic Perspectives*, 6 (1), 69–85.
- Duchin, R., & Levy, H. (2009). Markowitz Versus the Talmudic Portfolio Diversification Strategies. *The Journal of Portfolio Management*, 35(2), 71-74. doi:10.3905/JPM.2009.35.2.071
- Duchin, R., & Levy, H. (2009). Markowitz Versus the Talmudic Portfolio Diversification Theory. *The Journal of Portfolio Management*, 71-74. Retrieved 2 35
- Dumitrescu, E. I., & Hurlin, C. (2012). Testing for Granger Non-causality in Heterogeneous Panels. *Economic Modelling*, 29(4), 1450-1460.
- Dunning, J. (1981). Explaining the International Direct investment position of countries: Towards a dynamic or developmental approach. *Weltwirtschaftliches Archiv*, 119, 30–64.
- Dunning, J. H. (1980). Toward an eclectic theory of international production: some empirical tests. *Journal of International Business Studies*, 11(1), 9–31.
- Dunning, J. H. (2000). The eclectic paradigm as an envelope for economic and business theories of MNE activity. *International Business Review*, 9(2), 163 – 190.
- Dunning, J. H. (2001). *Relational Assets, Networks and International Business Activity*. A University of Reading Discussion Papers in International Investment and Management.
- Dunning, J. H. (2001). The Eclectic (OLI) Paradigm of International Production: Past, Present and Future. *International Journal of the Economics of Business*, 8(2), 173–190,.
- Dunning, J. H., & Lundan, S. M. (2008). *Multinational enterprises and the global economy*. Edward Elgar Publishing.
- Dunning, J. H., & Narula, R. (1993). *The Trans-Pacific Foreign Direct Investment and the Investment Development Path: The Record Assessed*.

- Dunning, J. H., & Narula, R. (1996). *The investment development path revisited-Some emerging issues. Foreign Direct Investment and Governments: Catalysts for economic restructuring*. New York: Routledge.
- Duran, J. J., & Ubeda, F. (2005). The investment development path of newly developed countries. *International Journal of the Economics of Business*, 12(1), 123-137.
doi:10.1080/1357151042000323076
- Dutt, A. K. (2011). Institutional change and economic development: concepts, theory and political economy. *Journal of Institutional Economics*, 7(4), 529–534.
doi:10.1017/S1744137411000075
- Eberhard, A., Gratwick, K., Morella, E., & Antmann, P. (2017). Independent Power Projects in Sub-Saharan Africa: Investment Trends and Policy Lessons. *Energy Policy*, 108, 390-424.
- Economic Commission for Africa. (2016). *Investment Policies and Bilateral Investment Treaties in Africa: Implications for Regional Integration*. Addis Ababa: United Nations Economic Commission for Africa.
- Economist. (2000, May 11). *The heart of the matter*. Retrieved from The Economist: www.economist.com/node/333437
- Eden, L., & Dai, L. (2010). Rethinking the O in Dunning's OLI/eclectic paradigm. *Multinational Business Review.*, 18(1), 13-34.
- Egger, P., & Pfaffermayr, M. (2004). The Impact of Bilateral Investment Treaties on Foreign Direct Investment. *Journal of Comparative Economics*, 32(4), 788-804 .
doi:10.1016/j.jce.2004.07.001.
- Egger, P., & Winner, H. (2006). How Corruption Influences Foreign Direct Investment: A Panel Data Study. *Economic Development and Cultural Change*, 54(2), 459-486.
- Eggoh, J., Houeninvo, H., & Sossou, G. A. (2015). Education, Health and Economic Growth in African countries. *Journal of Economic Development*, 40(1), 93.
- Elijah, U., & Egwaikhide, F. O. (2008). Exchange Rate Volatility, Inflation Uncertainty and Foreign Direct Investment in Nigeria. *Botswana Journal of Economics*, 5 (7), 14-31.
- Elkins, Z., Guzman, A. T., & Simmons, B. A. (2006). Competing for Capital: The Diffusion of Bilateral Investment Treaties, 1960–2000. *International Organization*, 60, 811–846.
doi:10+10170S0020818306060279
- Epaphra, M., & Massawe, J. (2017). The Effect of Corruption on Foreign Direct Investment: A Panel Study. *Turkish Economic Review*, 4(1), 19-54.
- Falvey, R., & Foster-McGregor, N. (2018). North-South foreign direct investment and bilateral investment treaties. *The World Economy*, 41(1), 2-28.
- Fan, J. P., Morck, R., Xu, L. C., & Yeung, B. (2009). Institutions and foreign direct investment: China versus the rest of the world. *World Development*, 37 (4), 852 -865. Retrieved from <https://doi.org/10.1016/j.worlddev.2008.07.016>

- Feils, D. J., & Rahman, M. (2008). Regional Economic Integration and Foreign Direct Investment: The Case of NAFTA. *Management International Review*, 48, 147-163.
- Feils, D. J., & Rahman, M. (2011). The Impact of Regional Integration on Insider and Outsider FDI. *Management International Review*, 51(1), 41-63. doi:10.1007/s11575-010-0062-z
- Fonseca, M., Mendonça, A., & Passos, J. (2007). *The Investment Development Path Hypothesis: Evidence from the Portuguese Case-A panel Data Analysis*.
- Foster, N., Poeschl, J., & Stehrer, R. (2011). The Impact of Preferential Trade Agreements on the Margins. *Economic Systems*, 35, 84–97. doi:10.1016/j.ecosys.2010.11.004
- Fourie, J. (2006). Economic Infrastructure: A review of definitions, theory and empirics. *South African Journal of Economics*, 74 (3), 530-556. doi:10.1111/j.1813-6982.2006.00086.x
- Fowowe, B. (2011). The Finance-Growth Nexus in Sub-Saharan Africa: Panel Cointegration and Causality Tests. *Journal of International Development*, 23, 220–239. doi:10.1002/jid.1660
- Frankel, J. (2010). *The Natural Resource Curse: A survey*. NBER Working Papers No. 15836. Retrieved from <https://EconPapers.repec.org/RePEc:nbr:nberwo:15836>
- Frankema, E., & Waijenburg, V. M. (2018). Africa Rising? A Historical Perspective. *African Affairs*, 117(469), 543-568.
- Frenkel, M., & Walter, B. (2019). Do bilateral investment treaties attract foreign direct investment? The role of international dispute settlement provisions. *World Economy*, 42(5), 1316–1342. Retrieved from <https://doi.org/10.1111/twec.12743>
- Fujita, M. (2008). A Critical Assessment of FDI Data and Policy Implications. *Transnational Corporations*, 17, 107–26.
- Galan, J. I., González-Benito, J., & Zuñiga-Vincente, J. (2007). Factors Determining the Location Decisions of Spanish MNEs: An Analysis Based on the Investment Development Path. *Journal of International Business Studies*, 38(6), 975–997.
- Gallagher, K. P., & Birch, M. B. (2006). Do investment agreements attract investment? Evidence from Latin America. *The Journal of World Investment and Trade*, 6(7), 961–974.
- Garcia-Canal, E., & Guillen, M. F. (2008). Risk and the Strategy of Foreign Location Choice in Regulated Industries. *Strategic Management Journal*, 29(10), 1097-1115. doi:10.1002/smj.692
- Ghazalian, P. L., & Amponsem, F. (2019). The Effects of Economic Freedom on FDI Inflows: An Empirical Analysis. *Applied Economics*, 51 (11), 1111-1132. doi:10.1080/00036846.2018.1524979
- Gillanders, R., & Whelan, K. (2014). Open for Business? Institutions, Business Environment and Economic Development. *Kyklos*, 67(4), 535-558. Retrieved from 10.1111/kykl.12067
- Gillanders, R., & Whelan, K. (2014). Open for Business? Institutions, Business Environment and Economic Development. *Kyklos*, 67 (4), 535-558. doi:10.1111/kykl.12067

- Görg, H., & Greenaway, D. (2003). *Much Ado About Nothing? Do Domestic Firms Really Benefit from Foreign Direct Investment? Research Paper 2001/37*. Forschungsinstitut zur Zukunft der Arbeit.
- Gounder, A., Falvey, R., & Rajaguru, G. (2019). The Effects of Preferential Trade Agreements on Foreign Direct Investment: Evidence from the African Caribbean Pacific Region. *Open Economies Review*. Retrieved from <https://doi.org/10.1007/s11079-019-09532-y>
- Gourinchas, P., & H, R. (2007). International Financial Adjustment. *Journal of Political Economy*, 115(4), 665–703. doi:10.1086/521966
- Gourinchas, P.-O., & Rey, H. (2005). *From the World Banker to the World Venture Capitalist: US External Adjustment and the Exorbitant Privilege*. Massachusetts : National Bureau of Economic Research.
- Gracia Andía, A. B., Rivas, M. D., & Sanz, J. M. (2006). The Effects of Macroeconomic Stability on Foreign Trade. An Analysis for Spain, 1986–2000. . *Applied Economics*, 38(17), 2021-2036.
- Green, A. (2018). Democracy and Institutions in Postcolonial Africa. *Journal of Institutional Economics*, 14 (2), 207–231. doi:10.1017/S1744137416000278
- Greggi, M. (2012). *Tax Law and the Mediterranean Area*. Marco Greggi.
- Griebeler, M. d., & Wagner, E. M. (2017). A signaling model of foreign direct investment attraction. *Economía*, 18(3), 344-358,. Retrieved from <https://doi.org/10.1016/j.econ.2017.04.001>
- Grosse, R., & Trevino, L. J. (2005). New institutional economics and FDI location in Central and Eastern Europe. *Management International Review*, 2(45), 123–145.
- Grossman, G. M., & Helpman, E. (1995). Trade wars and TradeTalks. *Journal of Political Economy*, 103(4), 675-708. doi:10.1086/261999
- Guzman, A. T. (1997). Why LDCs sign treaties that hurt them: Explaining the popularity of bilateral investment treaties. *Virginia Journal of International Law*, 38 , 639-688. Retrieved from <https://ssrn.com/abstract=2176003>
- Gwartney, J. D., & Lawson, R. A. (2004). *Economic Freedom of the World: 2004 annual report*. Economic Freedom of the World. Retrieved from <https://www.fraserinstitute.org>
- Gwartney, J. D., Lawson, R. A., & Clark, J. R. (2005). Economic Freedom of the World. *The Independent Review*, 9(4), 573-593.
- Habib, M., & Zurawicki, L. (2002). Corruption and Foreign Direct Investment. *Journal of International Business Studies*, 33(2), 291-307. doi:<https://doi.org/10.1057/palgrave.jibs.8491017>
- Haftel, Y. Z. (2010). Ratification counts: US investment treaties and FDI flows into developing countries. *Review of International Political Economy*, 17(2), 348-37. doi:10.1080/09692290903333103

- Hall, R. E., & Jones, C. (1999). Why do some Countries Produce so much more Output per Worker than Others? *Quarterly Journal of Economics*, 114(1), 83-116.
- Hallward-Driemeier, M. (2003). *Do Bilateral Investment Treaties Attract Foreign Direct Investment? Only a Bit ... and They Could Bite*. The World Bank.
- Hansen, L. P. (1982). Large Sample Properties of Generalized Method of Moments Estimators. *Econometrica*, 50(4), 1029–1054. Retrieved from <http://www.jstor.org/stable/1912775>
- Hanson, G. (2001). *Should Countries Promote Foreign Direct Investment?* G-24 Discussion Papers 9, United Nations Conference on Trade and Development.
- Harrison, G. W., & Rutstrom, E. E. (1991). Trade Wars, Trade Negotiations and Applied Game Theory. *The Economic Journal*, 101(406), 420–435. Retrieved from <https://doi.org/10.2307/2233549>
- Harsanyi, J. C., & Selten, R. (1988). *A General Theory of Equilibrium Selection in Games*. The MIT Press.
- Haruvy, E., Katok, E., Ma, Z., & Sethi, S. (2019). Relationship-Specific Investment and Hold Up Problems in Supply Chains: Theory and Experiments. *Business Research*, 12, 45–74. Retrieved from <https://doi.org/10.1007/s40685-018-0068-0>
- Hayakawa, K. (2015). The Asymptotic Properties of the System GMM Estimator in Dynamic Panel Data Models When Both N and T are Large. *Econometric Theory*, 3, 647–667. doi:10.1017/ S0266466614000449
- Hennart, J.-F. (1982). *A Theory of Multinational Enterprise*. Ann Arbor.
- Heritage Foundation. (2008). *2008 Index of Economic Freedom*. The Heritage Foundation. Retrieved from www.heritage.org/index
- Hicks, R., & Kim, S. Y. (2012). Reciprocal Trade Agreements in Asia: Credible Commitment to Trade Liberalization or Paper Tigers? *Journal of East Asian Studies*, 12(1), 1-29.
- Hong, J. (2008). WTO Accession and Foreign Direct investment in China. *Journal of Chinese Economic and Foreign Trade Studies*, 1(2), 136-147. doi:10.1108/17544400810884709
- Hornberger, K., Battat, J., & Kusek, P. (2011). Attractive FDI: how much does investment climate matter? *Public Policy for the Private Sector*. Retrieved from <http://www.worldbank.org/fpd/publicpolicyjou>
- Iamsiraroj, S., & Doucouliagos, H. (2015). Does Growth Attract FDI? *Economics Discussion Papers, No 2015-18*, Kiel Institute for the World Economy. Retrieved from <http://www.economics-ejournal.org/economics/discussionpapers/2015-18>
- IMF. (2018). *IMF Annual Report 2018: Building a Shared Future*. Washington, DC: International Monetary Fund.
- Inter-Agency Task Force on Financing for Development. (2016). *The Investment Climate*. International Finance Corporation (World Bank Group).

- International Monetary Fund. (2003). *Foreign Direct Investment Statistics: How Countries Measure FDI*. Washington, D.C: Organisation for Economic Co-operation and Development.
- International Trade Centre. (2018). *A Business Guide to the African Continental Free Trade Area Agreement*. Geneva: International Trade Centre.
- Ismail, N. W., Smith, P., & Kugler, M. (2009). The Effect of ASEAN Economic Integration on Foreign Direct Investment. *Journal of Economic Integration*, 24(3), 385-407.
- Jacobs, M. (2017). Do Bilateral Investment Treaties Attract Foreign Direct Investment to Developing Countries? A Review of the Empirical Literature. *International Relations and Diplomacy*, 5(10), 583-593. doi:10.17265/2328-2134/2017.10.001
- James, S. (2009). *Incentives and investments: Evidence and policy implications*. Investment Climate Advisory Services of the World Bank Group. Retrieved from <http://documents.worldbank.org/curated/en/945061468326374478/Incentives-and-investments-evidence->
- Jandhyala, S. (2016). Why Do Countries Commit to ISDS for Disputes with Foreign Investors? *AIB Insights*, 16(1), 7-9.
- Jandhyala, S., & Weiner, R. J. (2014). Institutions sans Frontières: International Agreements and Foreign Investment. *Journal of International Business Studies*, 45, 649–669. doi:10.1057/jibs.2013.70
- Jandhyala, S., Henisz, W. J., & Mansfield, E. D. (2011). Three Waves of BITs: The Global Diffusion of Foreign Investment Policy. *The Journal of Conflict Resolution*, 55(6), 1047-1073.
- Jensen, H. G., & Sandrey, R. (2015). *The Continental Free Trade Area: A GTAP Assessment South Africa*. Trade Law Centre.
- Jensen, N. (2008). Political Risk, Democratic Institutions, and Foreign Direct Investment. *The Journal of Politics*, 70(4), 1040–1052. doi:10.1017/s0022381608081048
- Jensen, N. M. (2003). Democratic Governance and Multinational Corporations: Political Regimes and Inflows of Foreign Direct Investment. *International Organization*, 57(3), 587-616. Retrieved from <https://www.jstor.org/stable/3594838>
- Jerven, M. (2015). *Africa: Why economists get it wrong*. London: Zed Books Ltd..
- Johanson, J., & Vahlne, J.-E. (2009). The Uppsala Internationalization Process Model Revisited: From Liability of Foreignness to Liability of Outsidership. *Journal of International Business Studies*, 40(12), 1411–1431.
- Johnson, A. R. (2009). Rethinking bilateral investment treaties in Sub-Saharan Africa. *Emory Law Journal*, 59, 919-967.
- Johnson, H. G. (1954). Optimum Tariffs and Retaliation. *The Review of Economic Studies*, 21(2), 142-153.

- Johnson, H. G. (1965). An Economic Theory of Protectionism, Tariff Bargaining, and the Formation of Customs Unions. *Journal of Political Economy*, 73(3), 256-283.
- Kafayat-Amusa, N. V., & Nara, M. (2016). Foreign aid and Foreign direct investment in Sub-Saharan Africa: A panel data analysis (Working Papers No. 612). *Economic Research Southern Africa*. Retrieved from <https://ideas.repec.org/p/rza/wpaper/612.html>
- Kamal, M. A., Shah, S. H., Jing, W., & Hasnat, H. (2020). Does the Quality of Institutions in Host Countries Affect the Location Choice of Chinese OFDI: Evidence from Asia and Africa. *Emerging Markets Finance & Trade*, 56(1), 208–227.
doi:<https://doi.org/10.1080/1540496X.2019.1610876>
- Kapuria-Foreman, V. (2007). Economic Freedom and Foreign Direct Investment in Developing Countries. *The Journal of Developing Areas*, 41 (1), 143–154. Retrieved from <http://www.jstor.org/stable/40376163>
- Karakaplan, M., Neyapti, B., & Sayek, S. (2005). *Aid and foreign direct investment: International evidence*. Bilkent University: Department Working Paper.
- Kassa, W., & Coulibaly, S. (2019). *Revisiting the Trade Impact of the African Growth and Opportunity Act: A Synthetic Control Approach*. World Bank Policy Research Working Paper 8993.
- Kerner, A. (2009). Why Should I Believe You? The Costs and Consequences of Bilateral Investment Treaties. *International Studies Quarterly*, 53, 73–102.
- Kisunko, G., Brunetti, A., & Weder, B. (1999). *Institutional obstacles to Doing Business: Region-by-Region results from a Worldwide Survey of the Private Sector*. The World Bank.
- Kisunko, G., Brunetti, A., & Weder, B. (Institutional Obstacles to Doing Business: Region-by-Region Results from a Worldwide Survey of the Private Sector). 1999. The World Bank.
doi:10.1596/1813-9450-1759
- Kolstad, I. (2009). The Resource Curse: Which Institutions Matter? *Applied Economics Letters*, 16(4), 439–442.
- Kolstad, I., & Tøndel, L. (2002). *Social Development and Foreign Direct Investments in Developing Countries*. Chr. Michelsen Institute.
- Kreinin, M. E., & Plummer, M. G. (2008). Effects of Regional Integration on FDI: An Empirical Approach. *Journal of Asian Economics*, 19 , 447–454.
- Krugman, P. (1980). Scale Economies, Product Differentiation, and the Pattern of Trade. *The American Economic Review*, 70(5), 950-959.
- Krugman, P. (1997). Why Should Trade Negotiators Negotiate About? *Journal of Economic Literature*, 35(1), 113-120.
- Kumari, R., & Sharma, A. K. (2017). Determinants of Foreign Direct Investment in Developing Countries: A Panel Data Study. *International Journal of Emerging Markets*, 12 (4), 658-682. Retrieved from <https://doi.org/10.1108/IJoEM-10-2014-0169>

- Kydland, F. E., & Prescott, E. C. (1977). Rules Rather Than Discretion: The Inconsistency Of Optimal Plans. *Journal of Political Economy*, 85(3), 473–491.
- Labra, R. L., & Torrecillas, C. (2018). Revista Colombiana de Estadística. *Estimating dynamic panel data. a practical approach to perform long panels*, 41(1), 31–52. Retrieved from <https://eprints.ucm.es/54968/>
- Lee, D.-S., & Kennedy, P. L. (2006). A Political Economic Analysis of U.S. Rice Export Programs to Japan and South Korea: A Game-Theoretic Approach. *American Journal of Agricultural Economics*, 88(2), 420-431.
- Lee, M. H., & Lio, M. C. (2016). The Impact of Foreign Direct Investment on Public Governance and Corruption In China. *The China Review*, 16(2), 105-135. Retrieved from www.jstor.org/stable/43831389
- Levchenko, A. A. (2007). Institutional Quality and international Trade. *The Review of Economic Studies*, 74 (3), 791-819.
- Li, Q., & Resnick, A. (2003). Reversal of fortunes: Democratic institutions and foreign direct investment inflows to developing countries. *International organization*, 57(1), 175-211.
- Liargovas, P. G., & Skandalis, K. S. (2012). Foreign Direct Investment and Trade Openness: The Case of Developing Economies. *Social Indicators Research*, 106(2), 323-331.
- Liedong, T. A., & Frynas, J. G. (2018). Investment Climate Constraints as Determinants of Political Tie Intensity in Emerging Countries: Evidence from Foreign Firms in Ghana. *Management International Review*, 58(5), 675-703. doi:10.1007/s11575-018-0354-2
- Lipsey, R. E. (2004). Home- and Host-Country Effects of Foreign Direct Investment. In R. E. Baldwin, & L. A. Winters, *Challenges to Globalization: Analyzing the Economics* (pp. 333-382). University of Chicago Press.
- Lipsey, R. E., & Sjöholm, F. (2011). Foreign Direct Investment and Growth in East Asia: Lessons from Indonesia. *Bulletin of Indonesian Economic Studies*, 47 (1), 35-63. doi:10.1080/00074918.2011.556055
- Liu, H., Chen, X., & Wu, Y. (2018). Political Environment and Chinese OFDI Under RMB Appreciation: A Panel Data Analysis. *Emerging Markets Finance and Trade*, 15(54), 3470–84. doi:10.1080/1540496X.2018.1504208
- Lizondo, S. J. (1993). Foreign direct investment. Readings in International Business. *A Decision Approach*, 85–114.
- Lokesha, B. K., & Leelavathy, D. S. (2012). Determinants of Foreign Direct Investment: A Macro Perspective. *Indian Journal of Industrial Relations*, 47(3), 459-469.
- Lokshin, B. (2008). A Monte Carlo comparison of alternative estimators for dynamic panel data models. *Applied Economics Letters*, 15, 15–18. doi:10.1080/13504850600706545
- Ludema, R. D., & Mayda, A. M. (2013). Do Terms-of-Trade Effects Matter for Trade Agreements? Theory and Evidence from WTO Countries. *The Quarterly Journal of Economics*, 128(4), 1837-1893.

- Ludema, R. D., & Mayda, A. M. (2013). Do Terms-Of-Trade Effects Matter for Trade Agreements? Theory and Evidence from WTO Countries*. *The Quarterly Journal of Economics*, 1837–1893. doi:10.1093/qje/qjt016
- Magee, S. P. (1981). The Appropriability Theory of the Multinational Corporation. *The Annals of the American Academy of Political and Social Science*, 458(1), 123–135.
- Maggi, G., & Rodríguez-Clare, A. (2007). A Political-Economy Theory of Trade Agreements. *The American Economic Review*, 97(4), 1374-1406. Retrieved from www.jstor.org/stable/30034097
- Mahembe, E., & Odhiambo, N. M. (2019). Foreign AID, Poverty and Economic Growth in Developing Countries: A Dynamic Panel Data Causality Analysis. *Cogent Economics & Finance*, 7(1).
- Maier-Paape, S., & Zhu, Q. J. (2017). *A General Framework for Portfolio Theory. Part II: drawdown risk measures*. Institut f'ur Mathematik.
- Makoni, P. L. (2015). An Extensive Exploration of Theories of Foreign Direct Investment. *Risk governance & control: financial markets & institutions*, 5(2), 77-83.
- Manning, T. (2012). *Which Nations like BITs Best? Determining Partners for Bilateral Investment Treaties*. New York : New York University.
- Mansfield, E. D., Milner, H. V., & Rosendorff, P. B. (2000). Free to Trade:Democracies, Autocracies and International Trade. *American Political Science Review*, 94(2), 305-322.
- Mansfield, E. D., Milner, H. V., & Rosendorff, P. B. (2002). Why Democracies Cooperate More: Electoral Control and International Trade Agreements. *International Organization*, 56(3), 477-514.
- Markowitz, H. (1952). Portfolio Selection. *The Journal of Finance*, 7(1), 77-91.
- Marrazzo, P. M., & Terzi, A. (2017). *Structural reform waves and economic growth (Working Paper Series No. 2111)*. European Central Bank. Retrieved from <https://ideas.repec.org/p/ecb/ecbwps/20172111.html>
- Marszk, A. (2014). Economic Integration and Foreign Direct Investment: Review of MainTheoretical Concepts. *Entrepreneurial Business and Economics Review*, 2 (3), 79-89.
- Masipa, T. S. (2018). The relationship between foreign direct investment and economic growth in South Africa: Vector error correction analysis. *Acta Commercii*, 18(1), 1-8. doi:<https://dx.doi.org/10.4102/ac.v18i1.466>
- Maze, A. (2017). Standard-setting activities and new institutional economics. *Journal of Institutional Economics*, 13(3), 599-621.
- Meissner, C., & Taylor, A. (2006). *Loosing our Marbles in the New Century? The Great Rebalancing in Historical Perspective*. National Bureau of Economic Research.
- Menard, C. (2001). Methodological issues in new institutional economics. *Journal of Economic Methodology*, 8(1), 85-92. doi:10.1080/13501780010023243

- Menard, S. (2008). *Handbook of Longitudinal Research: Design, Measurement, and Analysis*. Burlington: Academic Press.
- Mileva, E. (2007). Using Arellano-Bond Dynamic Panel GMM Estimators in Stata. *Economics Department, Fordham University*, 64, 1–10.
- Milonakis, D., & Meramveliotakis, G. (2013). Homo Economicus and the Economics of Property Rights: History in Reverse Order. *Review of Radical Political Economics*, 45(1), 5–23. doi:10.1177/0486613412447055
- Min, B.-S., Mujumdar, S., & Rhim, J. C. (2011). Bilateral Investment Treaties and Foreign Direct Investment. *Global Business and Finance Review*, 75-87.
- Mina, W. (2010, 2010). Do Bilateral Investment Treaties Encourage FDI in the GCC Countries? *African Review of Economics and Finance*, 2(1), 1-29.
- Mishra, B. (2016). *Differential Rate of Return of the Emerging Market Economies*. Duke University.
- Moosa, I. A. (2002). *Foreign Direct Investment: Theory, Evidence and Practice*. New York: Palgrave Macmillan.
- Morgan, R. E., & Katsikeas, C. S. (1976). Theories of International trade, Foreign Direct Investment and Firm Internationalization: A critique. *Management Decision*, 35(1), 68–78.
- Morrissey, O., & Udomkerdmongkol, M. (2012). Governance, Private Investment and Foreign Direct Investment in Developing Countries. *World Development*, 40,(3), 437 - 445.
- Moussaa, M., Çahab, H., & Karagöz, M. (2016). Review of Economic Freedom Impact on FDI: New Evidence from Fragile and Conflict Countries. *Istanbul Conference of Economics and Finance, ICEF 2015, 22-23 October 2015*. 38 , pp. 163 – 173. Istanbul: Procedia Economics and Finance.
- Murphy, M. J. (1977). Efficient Markets, Index Funds, Illusion, and Reality. *The Journal of Portfolio Management*, 4(1), 5–20.
- Murray, C. J., & Frenk, J. (2002). A WHO Framework for Health Systems Performance Assessment.
- Murray, J. S. (1986). Understanding Competing Theories of Negotiations. *Negotiations Journal*, 179-186.
- Nagayasu, J. (2002). Does the long–run PPP hypothesis hold for africa? evidence from a panel cointegration study. *Bulletin of economic Research*, 54(2), 181-187.
- Nasser, O. M. (2007). The Determinants of the U.S. Foreign Direct Investment: Does the Region Matter? *Global Economic Review*, 36(1), 37-51. doi:http://dx.doi.org/10.1080/12265080701217181
- Naudé, W. A., & Krugell, W. F. (2007). Investigating Geography and Institutions as Determinants of Foreign Direct Investment in Africa using Panel Data. *Applied Economics*, 39(10), 1223-1233.

- Nayak, D., & Choudhury, R. N. (2014). *A Selective Review of Foreign direct Investment Theories*. Asia-Pacific Research and Training Network on Trade.
- Nayan, S., Kadir, N., Ahmad, M., & Abdullah, M. S. (2013, July). *Revisiting Energy Consumption and GDP: Evidence from Dynamic Panel Data Analysis*.
- Ndoricimpa, A. (2017). Threshold Effects of Debt on Economic Growth in Africa. *African Development Review*, 29: , 471-484. doi:doi:10.1111/1467-8268.12282
- Ndoricimpa, A. (2017). *Threshold Effects of Inflation on Economic Growth in Africa: Evidence from a Dynamic Panel Threshold Regression Approach (No. 249)*. African Development Bank Working Paper.
- Ndulu, B. J., O'Connell, S. A., Bates, R. H., Collier, P., & Soludo, C. C. (2007). *The Political Economy of Economic Growth in Africa, 1960–2000*. Cambridge: Cambridge University Press. doi:10.1017/CBO9780511492648
- Neumayer, E., & Spess, L. (2005). Do Bilateral Investment Treaties increase Foreign Direct Investment to Developing Countries. *World Development*, 33(10), 1567-1585.
- Newey, W. K., & West, K. D. (1987). A simple, positive semi-definite, heteroskedasticity and autocorrelation consistent covariance matrix. *Econometrica*, 55(3), 703–708. Retrieved from <http://www.jstor.org/stable/1913610>
- Nkoa, B. O. (2018). Determinants of Foreign Direct Investment in Africa: An Analysis of the Impact of Financial Development. *Economics Bulletin*, 38 (1), 221-233.
- North, D. C., & Weingast, B. R. (1989). Constitutions and Commitment: The Evolution of Institutions Governing Public Choice in Seventeenth-Century England. *The Journal of Economic History*, XLIX(4), 803-832.
- Obeng-Odoom, F. (2013). The mystery of capital or the mystification of capital? *Review of Social Economy*, 71(4), 427-442. doi:10.1080/00346764.2012.761758
- Obeng-Odoom, F. (2015). Africa: On the Rise, but to Where? *Forum for Social Economics*, 44(3), 234-250. doi:10.1080/07360932.2014.955040
- Obeng-Odoom, F. (2018). Enclosing the urban commons: Crises for the commons and commoners. *Sustainable cities and society*, 40, 648-656. Retrieved from <https://doi.org/10.1016/j.scs.2018.01.001>
- Obeng-Odoom, F. (2020). The African Continental Free Trade Area. *Am J Econ Sociol*, 79, 167-197. doi:10.1111/ajes.12317
- Obeng-Odoom, F. (2020). *The Commons in an Age of Uncertainty: Decolonizing Nature, Economy, and Society*. Toronto: University of Toronto Press.
- Oduola, A. (2018). *Addressing the Foreign Direct Investment Paradox in Africa*. United Nations Development Programme.
- OECD. (2020). *"FDI flows" (Indicator)*. doi:10.1787/99f6e393-en
- Ogunmuyiwa, M. S., & Ekone, F. A. (2010). Money Supply - Economic Growth Nexus in Nigeria. *Journal of Social Sciences*, 22(3), 199-204. doi:10.1080/09718923.2010.11892802

- Oloruntoba, S. O., & Falola, T. (2018). *The Palgrave Handbook of African Politics, Governance and Development*. New York: Palgrave Macmillan. Retrieved from <https://doi.org/10.1057/978-1-349-95232-8>
- Oloruntoba, S. O., & Falola, T. (2018). *The Palgrave Handbook of African Politics, Governance and Development*. Palgrave Macmillan.
- Ossa, R. (2011). A “New Trade” Theory of GATT/WTO Negotiations. *Journal of Political Economy*, 119(1), 122-152.
- Padayachee, V. (2020). Extraordinary times: Frank Stilwell and the study of inequality-The Political Economy of Inequality by Frank Stilwell: book review essay. *African Review of Economics and Finance*, 12(1), 282-292.
- Páez, L. (2017). Bilateral Investment Treaties and Regional Investment Regulation in Africa: Towards a Continental Investment Area? *The Journal of World Investment & Trade*, 18(3), 379-413. doi:<https://doi.org/10.1163/22119000-12340046>
- PAGE. (2018). *International Investment Agreements and Sustainable Development: Safeguarding Policy Space and Mobilizing Investments for a Green Economy*. United Nations Environment Programme.
- Papyrakis, E., & Gerlagh, R. (2004). The Resource Curse Hypothesis and its Transmission Channels. *Journal of Comparative Economics*, 32(1), 181-193. doi:<https://doi.org/10.1016/j.jce.2003.11.002>
- Parry, T. G. (1985). Internalisation as a General Theory of Foreign Direct Investment: A Critique. *Weltwirtschaftliches Archiv*, 121(3), 564-569.
- Patterson, N., Montanjes, M., Motala, J., & Cardillo, C. (2004). *Foreign Direct Investment: Trends, Data Availability, Concepts, and Recording Practices* . Washington, D.C : International Monetary Fund .
- Pattillo, C., Poirson, H., & Ricci, L. (2002). External Debt and Growth. *Review of Economics and Institutions*, 2, Review of Economics and Institutions. doi:10.5202/rei.v2i3.45
- Peres, M., Ameer, W., & Xu, H. (2018). The Impact of Institutional Quality on Foreign Direct Investment Inflows: Evidence for Developed and Developing Countries. *Economic research-Ekonomska istraživanja*, 31(1), 626-644. doi:10.1080/1331677X.2018.1438906
- Pesaran, M. H. (2011). *On the Interpretation of Panel Unit Root Tests**. Cambridge: University of Cambridge and USC.
- Phuong, T.-M. . (2018). Impacts of Institutions on the Performances of Enterprises in Vietnam (Papers No. 1149). *World Trade Institute*. Retrieved from <https://ideas.repec.org/p/wti/papers/1149.html>
- Poulsen, L. N., & Aisbett, E. (2013). When the Claim hits: Bilateral Investment Treaties and Bounded Rational Learning. *World Politics*, 65(2), 273-313.

- Poulsen, L. S. (2010). The Importance of Bits for Foreign Direct Investment and Political Risk Insurance: Revisiting the Evidence. In K. Sauvart, *Yearbook on International Investment Law and Policy* (pp. 539–574). New York: Oxford University Press.
- Powell, W. W., & DiMaggio, P. J. (1991). *The new institutionalism in organizational analysis*. London: The University of Chicago Press.
- Quazi, R. H., Williams, M. F., Baldwin, R., Vesey, J., & Ballentine, w. (2014). Impact of foreign aid on foreign direct investment in South Asia Asia and East Asia. *International Journal of Business Research*, 7(12), 44-52. doi:10.5539/ibr.v7n12p44
- Quazi, R. M., Ballentine, W. E., Bindu, F., & Blyden, L. (2019). Multilateral Foreign Aid, Bilateral Foreign Aid, and Foreign Direct Investment in Latin America. *International Journal of Economics and Financial Issues*, 9(2), 2284-290.
- Rakhi, V., & Louis, B. (2011). The investment development path theory: evidence from India. *International Journal of Emerging Markets*, 6(1), 74 – 89.
- Rangakulnuwat, P., & Paweenawat, S. W. (2015). The Determinants of Foreign Direct Investment in ASEAN. *International Journal of Social Economics*, 42(3), 239-250.
- Ranis, G. (2004). *Human Development and Economic Growth*. Yale University. Retrieved from <http://www.econ.yale.edu/~egcenter/>
- Reed, W. R., & Webb, R. (2010). The PCSE Estimator is Good--just not as Good as you think. *Journal of Time Series Econometrics*, 2(1). Retrieved from <https://doi.org/10.2202/1941-1928.1032>
- Rodríguez-Pose, A., & Cols, G. (2017). The Determinants of Foreign direct Investment in Sub-Saharan Africa: What Role for Governance? *Regional Science Policy & Practice*, 9(1), 63– 81. Retrieved from 10.1111/rsp3.12093
- Rodrik, D. (2017). The Elusive Promise of Structural Reform. I. n *Political Economy perspectives on the Greek crisis* , 61-70.
- Rojas-Ramírez, L. E., & Molina-Vargas, A. (2018). Public infrastructure and its imPortance for economic growth: the case of oaxaca (Mexico). *Ecos de Economía*, 22(46), 4-27. doi:<https://dx.doi.org/10.17230/ecos.2018.46.1>
- Romer, P. M. (1986). Increasing returns and long-run growth. *Journal of Political Economy*, 94(5), 1002–1037. Retrieved from <http://www.jstor.org/stable/1833190>
- Romer, P. M. (1990). Endogenous technological change. *Journal of Political Economy*, 98(5), 71–102. Retrieved from <http://www.jstor.org/stable/2937632>
- Romer, P. M. (1994). The Origins of Endogenous Growth. " *The Journal of Economic Perspectives*, 8(1), 3–22. Retrieved from www.jstor.org/stable/2138148.
- Roodman, D. (2009). A Note on the Theme of too many Instruments*. *Oxford Bulletin of Economics and Statistics*, 71(1), 135-158. doi:10.1111/j.1468-0084.2008.00542.x

- Roodman, D. (2009). How to do Xtabond2: An Introduction to Difference and System GMM in Stata. *The Stata Journal*, 9(1), 86–136.
doi:<https://doi.org/10.1177/1536867X0900900106>
- Rose-Ackerman, S., & Tobin, J. (2005). Foreign Direct Investment and the Business Environment in Developing Countries: the Impact of Bilateral Investment Treaties. *Yale Law & Economics Research Paper*. Retrieved from <http://dx.doi.org/10.2139/ssrn.557121>
- Rosendorff, P. B., & Shin, K. (2012). *Importing Transparency: The Political Economy of BITs and FDI Flows*. Working Paper. Retrieved from <https://18798-presscdn-pagely.netdna-ssl.com/faculty-rosendorff/wp-content/uploads/sites/1510/2015/03/RosendorffShinAPSA201>
- Rosendorff, P. B., & Shin, K. (2015). Regime Type and International Commercial Agreements. *International Journal of Economic Theory*, 11(1), 107–19.
- Rozans, E. (2016). The Impact of Economic Freedom on the Attraction of Foreign Direct Investment in the Baltics. *Journal of Economics and Management Research*, 4(5), 74-94.
- Rugman, A. M. (1981). Inside the Multinationals. *The Economics of Internal Markets*.
- Rugman, A. M. (1985). Internalization Is Still a General Theory of Foreign Direct Investment. *Weltwirtschaftliches Archiv*, 121(3), 570-575.
- Rugman, A. M. (2010). Reconciling Internalization Theory and the Eclectic Paradigm. *Multinational Business Review*, 18(2), 1-12.
- Rutherford, M. (2001). Institutional economics: Then and Now. *Journal of economic perspectives*, 15(3), 173-194.
- Ryan, C. M. (2009). Discerning the Compliance Calculus: Why States Comply with International Investment Law. *Ga. J. Int'l & Comp. L*, 38(63), 63-95.
- Sabir, S., Rafique, A., & Abbas, K. (2019). Institutions and FDI: Evidence from Developed and Developing Countries. *Financial Innovation*, 5(8). doi:10.1186/s40854-019-0123-7
- Sachs, J., & Malaney, P. (2002). The Economic and Social Burden of Malaria. *Nature*, 415(6872), 680-685.
- Salacuse, J. W. (1990). BIT by BIT: The Growth of Bilateral Investment Treaties and Their Impact on Foreign Investment in Developing Countries Section's Tribute to Louis Sohn. *International Lawyer (ABA)*, 24(3), 655–676.
- Salacuse, J. W., & Sullivan, N. P. (2005). Do Bits Really Work: An Evaluation of Bilateral Investment Treaties and their Grand Bargain. *Harvard International Law Journal*, 46(1), 67-130.
- Salacuse, J. W., & Sullivan, N. P. (2009). *Do BITs Really Work?: An Evaluation of Bilateral Investment Treaties and their Grand Bargain*. Oxford Scholarship Online .
doi:10.1093/acprof:oso/9780195388534.003.0005

- Sambharya, R. B., & Rasheed, A. A. (2015). Does Economic Freedom in Host Countries lead to Increased Foreign Direct Investment? *Competitiveness Review*, 25 (1), 2-24.
doi:10.1108/CR-05-2013-0047
- Sanguinetti, P., Siedschlag, L., & Martincus, C. V. (2010). The Impact of South-South Preferential Trade Agreements on Industrial Development: An Empirical Test. *Journal of Economic Integration*, 25(1), 69-103.
- Sargent, D. (2013). The Cold War and the international political economy in the 1970s. *Cold War History*, 13(3), 393-425. doi:10.1080/14682745.2013.789693
- Sauvant, K. P., & Sachs, L. E. (2009). *The effect of treaties on foreign direct investment: bilateral investment treaties, double taxation treaties, and investment flows*. Oxford: Oxford University Press.
- Savvides, A. (1995). Economic growth in Africa. *World development*, 23(3), 449-458.
- Sawe, B. E. (2018, Aug 20). "Which Continent Is The Richest In Natural Resources?" . Retrieved from WorldAtlas: worldatlas.com/articles/which-continent-is-the-richest-in-natural-resources.html.
- Saygili, M., Ralf, P., & Knebel, C. (2018). *African Continental Free Trade Area: Challenges and Opportunities of Tariff Reductions.* Research Paper No. 15,. Geneva, Switzerland.: United Nations Conference on Trade and Development (UNCTAD).
- Schneider, F., & Frey, B. S. (1985). Economic and political determinants of foreign direct investment. *World Development*, 13(2), 161-175. Retrieved from [https://doi.org/10.1016/0305-750X\(85\)90002-6](https://doi.org/10.1016/0305-750X(85)90002-6)
- Sekkat, K., & Veganzones-Varoudakis, M.-A. (2007). Openness, investment climate, and FDI in developing countries. *Review of Development Economics*, 11(4), 607-620.
doi:10.1111/j.1467-9361.2007.00426.x
- Sen, K., & Sinha, C. (2017). The Location Choice of US Foreign Direct Investment: How Do Institutions Matter? *Journal of Institutional Economics*, 13(2), 401–420. doi:10.1017/S1744137416000333
- Senadza, B., Fiagbe, K., & Quartey, P. (2017). The Effect of External Debt on Economic growth In Sub-Saharan Africa. *International Journal of Business and Economic Sciences Applied Research*, 11(1).
- Sethi, D., Guisinger, S., Phelan, S., & Berg, D. (2003). Trends in Foreign Direct Investment Flows: A Theoretical and Empirical Analysis. *Journal of International Business Studies*, 34, 315–326.
- Shah, M. H. (2017). The effect of Macroeconomic Stability on inward FDI in African Developing Countries. *International Journal of Business Studies Reiew*, 1(1), 1-11.
- Shamsuddin, A. (1994). Economic Determinants of Foreign Direct Investment in Less Developed Countries. *The Pakistan Development Review*, 33(1), 41-51. Retrieved from www.jstor.org/stable/41259744

- Shiells, C. R. (2003). FDI and the investment climate in the cis countries. . *International Monetary Fund(IMF Policy Discussion Paper)*.
- Shirley, M. M., Wang, N., & Menard, C. (2015). Ronald Coase's impact on economics. *Journal of Institutional Economics*, 11(2), 227-244. doi:10.1017/S1744137414000368
- Singer, H. W. (2012). *The Distribution of Gains between Investing and Borrowing Countries: In: Jolly R. (eds) Milestones and Turning Points in Development Thinking. IDS Companions to Development*. London: Palgrave Macmillan.
doi:https://doi.org/10.1057/9781137271631_19
- Singh, N., & Kundu, S. (2002). Explaining the Growth of E-Commerce Corporations (ECCs): An Extension and Application of the Eclectic Paradigm. *Journal of International Business Studies*, 33(4), 679-697.
- Sirr, G., Garvey, J., & Gallagher, L. A. (2017). Bilateral investment treaties and foreign direct investment: Evidence of asymmetric effects on vertical and horizontal investments. *Development Policy Review*, 35(1), 93-113.
- Smarzynska, B. (2002). *Spillovers from Foreign Direct Investment through Backward Linkages: Does Technology Gap Matter?* Mimeo, World Bank.
- Snidal, D., & Thompson, A. (2003). International Commitments and Domestic Politics: Institutions and Actors at Two Levels. In D. W. Drezner, *Locating the Proper Authorities: The Interaction of Domestic and International Institutions* (pp. 197–230). Ann Arbor: University of Michigan Press.
- Sornarajah, M. (1986). State Responsibility and Bilateral Investment Treaties. *Journal of World Trade Law*, 20, 79-98.
- Stevens, G. V. (1998). Exchange Rates and Foreign Direct Investment: A NOTE. *Journal of Policy Modeling*, 20(3), 393–401.
- Strat, V. A., Davidescu(Alexandru), A., & Paul(Vass), A. M. (2015). FDI and The Unemployment - A Causality Analysis for the Latest EU Members. *Procedia Economics and Finance*, 23, 635-643. doi:[https://doi.org/10.1016/S2212-5671\(15\)00448-7](https://doi.org/10.1016/S2212-5671(15)00448-7)
- Strat, V. A., Davidescu(Alexandru), A., & Paul(Vass), A. M. (2015). FDI and The Unemployment - A Causality Analysis for the Latest EU Members. *Procedia Economics and Finance*, 23, 635-643. doi:[https://doi.org/10.1016/S2212-5671\(15\)00448-7](https://doi.org/10.1016/S2212-5671(15)00448-7)
- Stuhlmacher, A. F., & Stevenson, M. K. (1997). Using Policy Modeling to Describe the Negotiation Exchange. *Group Decision and Negotiation*, 6, 317–337. Retrieved from <https://doi.org/10.1023/A:1008660711275>
- Suliman, A. H., & Mollick, A. V. (2009). Human capital development, war and foreign direct investment in sub-saharan africa. *Oxford Development Studies*, 37(1), 47-61.
doi:10.1080/13600810802660828
- Swenson, D. L. (2005). Why Do Developing Countries Sign BITs? *J. Intl'l L. & Policy*, 12, 131.

- Tabova, A. (2013). *Portfolio Diversification and the Cross-Sectional Distribution of Foreign Investment*. Board of Governors of the Federal Reserve System: International Finance Discussion Papers.
- Tahmad, A. M., & Adow, A. H. (2018). The impact of trade openness on foreign direct investment in Sudan by sector in the 1990-2017 period: an empirical analysis. *World Economy and International Relations Journal*, 172(7-8), 14-21.
doi:<https://doi.org/10.21003/ea.V172-03>
- Tait, L. B., Siddique, M., & Chatterjee, I. (2015). *Foreign AID and Economic Growth in Sub-Saharan Africa*. University of Western Australia, Business School, Economics.
- Taşbaşı, A. (2017). International Trade and Strategic Behaviour: A Game Theoretical Analysis of the Trade Dispute between Turkey and Russia. *Economic Research-Ekonomska Istraživanja*, 30(1), 581-595. doi:10.1080/1331677X.2017.1305769
- Tchouassi, G. (2014). Private capital and investment climate for economic growth: Empirical lessons based on ardl bound test technique. *European Journal of Sustainable Development*, 3(2), 17–32. Retrieved from 10.14207/ejsd.2014.v3n2p17
- Te Velde, D. W., & Bezemer, D. (2006). Regional Integration and Foreign Direct Investment in Developing Countries. *Transnational Corporations*, 15(2), 41-70.
- Tesfayesus, A. (2016). Liberalization Agreements in the GATTWTO and the Terms-of-trade Externality Theory: Evidence from Three Developing Countries. *Review of International Economics*, 24(5), 1000–1022. doi:10.1111/roie.12245
- The World Bank. (2019). *Annual Report 2018: Ending Poverty, Investing in Opportunity*. Washington, DC: International Bank for Reconstruction and Development.
- Thomas, J., & Worrall, T. (1994). Foreign Direct Investment and the Risk of Expropriation. *The Review of Economic Studies*, 61(1), 81-108.
- Thomson, A. (2010). *An introduction to African Politics*. Routledge.
- Tobin, J. L., & Busch, M. L. (2010). A BIT is better than a lot: Bilateral Investment Treaties and Preferential Trade Agreements. *World Politics*, 62(1), 1-42.
doi:10.1017/S0043887109990190
- Tobin, J. L., & Rose-Ackerman, S. (2011). When BITs have some bite: The Political-Economic Environment for Bilateral Investment Treaties. *Rev Int Organ*, 6, 1–32.
doi:10.1007/s11558-010-9089-y
- Tortian, A. (2007). *International Investment Agreements and their Impact on Foreign Direct Investment: Evidence from Four Emerging Central European Countries*. Doctoral Dissertation.
- Trent, R. (2002). Implications for Foreign Direct Investment in Sub-Saharan Africa under the African Growth Opportunity Act,. *Nw. J. Int'l L. & Bus*, 23, 213-238.
- Trevino, L. J., Daniels, J. D., & Arbelaez, H. (2002). Market Reform and FDI in Latin America: An Empirical Investigation. *Transnational Corporations*, 11(1), 29–48,.

- Ullah, A., Anees, M., Ali, Z., & Khan, M. A. (2018). Economic Freedom and Private Capital Inflows in Selected South Asian Economies: A Dynamic Panel Data Evidence. *South Asian Journal of Business and Management Cases*, 7(1), 41-52.
doi:10.1177/2277977918757365
- UNCTAD . (2002). *World Investment Report 2002*. Geneva: UNCTAD.
- UNCTAD. (1999). *Foreign Direct Investment in Africa: Performance and Potential*. New York: United Nations.
- UNCTAD. (2004). *International Investment Agreements: Key Issues*. A United Nations Publication.
- UNCTAD. (2009). *The Role of International Investment Agreements in Attracting Foreign Direct Investment to Developing Countries*. New York: United Nations Conference on Trade and Development.
- UNCTAD. (2019, Nov 25). *International Investment Agreements Navigator*, . Retrieved from Investment Policy Hub: <https://investmentpolicy.unctad.org/international-investment-agreements/>
- UNDP. (2020, Feb). *About Sub-Saharan Africa*. Retrieved from Africa at a turning point: <https://www.africa.undp.org/content/rba/en/home/regioninfo.html>
- UNDP. (2020). *Annual Report 2020*. New York: United Nations Development Programme.
- United Nations Conference on Trade & Development. (2019). *World Investment Report 2019: Special Economic Zones*. New York: United Nations Publications.
- United Nations Conference on Trade and Development. (2005). *Economic Development in Africa: Rethinking the Role of Foreign Direct Investment*. Geneva: United Nations.
- United Nations Conference on Trade and Development. (2017). *UNCTAD Annual Report 2016: A Commitment to Inclusive Trade*. Geneva: United Nations.
- United Nations Conference on Trade and Development. (2017). *World Investment Report: Investment and the Digital Economy*. Geneva: United Nations.
- United Nations Conference on Trade and Development. (2018). *World Investment Report 2018: Investment and New Industrial Policies*. New York and Geneva: United Nations.
- Vaisey, S., & Miles, A. (2017). What you can—and can't—do with three-wave panel data. *Sociological Methods & Research*, 46(1), 44-67.
- Vandevelde, K. J. (2005). A Brief History of International Investment Agreements. *U.C. Davis Journal of International Law Policy*, 12(1), 157-194.
- Vieira, V. A. (2010). Antecedents and consequences of market orientation: a Brazilian meta-analysis and an international mega-analysis. . *Brazilian Administration Review, Curitiba*, 7, 44-58.
- Vinesh, S. R., Boopendra, S., & Hemraze, D. (2014). Determinants of Foreign Direct Investment in SADC: An Empirical Analysis. *The Business & Management Review*, 4(4), 146-158.

- Wacker, K. M., Grosskurth, P., & Lakemann, T. (2014). *Terms of Trade, Foreign Direct Investment, and Development: A Case of Intra-Asian "Kicking Away the Ladder"?* ADB Working Paper Series on Regional Economic Integration.
- Wacker, K. M., Grosskurth, P., & Lakemann, T. (2016). Foreign Direct Investment, Terms of Trade, and Quality Upgrading: What Is So Special about South Asia? *Asian Development Review*, 33(1), 28–55.
- Walter, B., & Frenkel, M. (2016). The Impact of FDI on Institutions: What Role Do International Investment Agreements Play? *WHU - Otto Beisheim School of Management*, .
- Watkins, G. P. (1916). The Theory of Differential Rates. *The Quarterly Journal of Economics*, 682-703. Retrieved from <https://www.jstor.org/stable/1884239>
- Weisskopf, T. E. (1972). The Impact of Foreign Capital Flows on Domestic Savings in Underdeveloped Countries. *Journal of International Economics*, 2(1), 25-38. doi:10.1016/0022-1996(72)90043-8
- White, H. (2000). *Asymptotic Theory for Econometricians* (2nd edition ed ed.). Academic Press Inc.
- Wisniewski, T. P., & Pathan, S. K. (2014). Political Environment and Foreign Direct Investment: Evidence from OECD Countries. *European Journal of Political Economy*, 36(C), 13-23. doi:10.1016/j.ejpoleco.2014.0
- Wolde-Rufael, Y. (2006). Electricity Consumption and Economic Growth: A Time Series Experience for 17 African Countries. *Energy policy*, 34(10), 1106-1114.
- Wooldridge, J. M. (2001). Applications of Generalized Method of Moments Estimation. *The Journal of Economic Perspectives*, 15(4), 87–100. Retrieved from <http://www.jstor.org/stable/2696518>
- Wooldridge, J. M. (2010). *Econometric Analysis of Cross-section and Panel Data*. Mit Press. Retrieved from <http://www.jstor.org/stable/j.ctt5hhcfr>
- World Bank. (2020). *The African Continental Free Trade Area: Economic and Distributional Effects*. Washington: International Bank for Reconstruction and Development.
- World Investment Report. (2004). *International Investment Agreements: Key Issues*. United Nations Conference on Trade and Development.
- World Investment Report. (2007). *Transnational Corporations, Extractive Industries and Development*. Geneva: United Nations Conference on Trade & Development. Retrieved from https://unctad.org/en/Docs/wir2007p4_en.pdf
- World Investment Report. (2018). *Investment and New Industrial Policies. Investment and New Industrial Policies*. Geneva: United Nations Conference on Trade and Development.
- World Investment Report. (2019). *World Investment Zones: Special Economic Zones*. New York: United Nations Conference on Trade and Development.
- World Trade Report. (2019). *The Future of Services Trade*. Geneva: World Trade Organisation. Retrieved from www.wto.org

- Yackee, J. W. (2007). *Do BITs really work? Revisiting the empirical link between investment treaties and foreign direct investment*. Univ. of Wisconsin .
- Yackee, J. W. (2011). How much do US Corporations know (and care) about Bilateral Investment Treaties? Some hints from new Survey Evidence. *In, Columbia FDI Perspectives* (p. 74). New York: Vale Columbia Center on Sustainable International Investment.
- Yackee, J. W. (2016). Do BITs 'Work'? Empirical Evidence from France. *Journal of International Dispute Settlement*, 7, 55–71. doi:10.1093/jnlids/idv033
- Yazbek, N. (2010). Bilateral investment treaties: the foreclosure of domestic policy space. *South African Journal of International Affairs*, 17(1), 103-120.
doi:10.1080/10220461003763874
- Zeng, K., & Lu, Y. (2016). Variation in Bilateral Investment Treaty Provisions and Foreign Direct Investment Flows to China, 1997–2011. *International Interactions*, 42, 820–848.
- Zghidi, N., Sghaier, I. M., & Abida, Z. (2016). Does Economic Freedom Enhance the Impact of Foreign Direct Investment on Economic Growth in North African Countries? A Panel Data Analysis. *African Development Review*, 64–74.
- Zhao, J. H., Kim, S. H., & Du, J. (2003). The Impact of Corruption and Transparency on Foreign Direct Investment: An Empirical Analysis. *MIR: Management International Review*, 43(1), 41-62. Retrieved from www.jstor.org/stable/40835633
- Zheng, Y. (2011). Credibility and Flexibility: Political Institutions, Governance, and Foreign Direct Investment. *International Interactions*, 37(3), 293-319. doi:10.1080/03050629.20
- Zikalala, M., & Sacolo, T. (2018). Quantifying the size and trends of the shadow economy in the Kingdom of Eswatini. *African Review of Economics and Finance*, 2, 44-68.
- Zitta, S. J., & Powers, T. L. (2003). Motives for Foreign Direct Investment in the United States. *Thunderbird International Business Review*, 45(3), 275–288. Retrieved from <https://doi.org/10.1002/tie.10075>

Appendix A: Scree plots from principal components

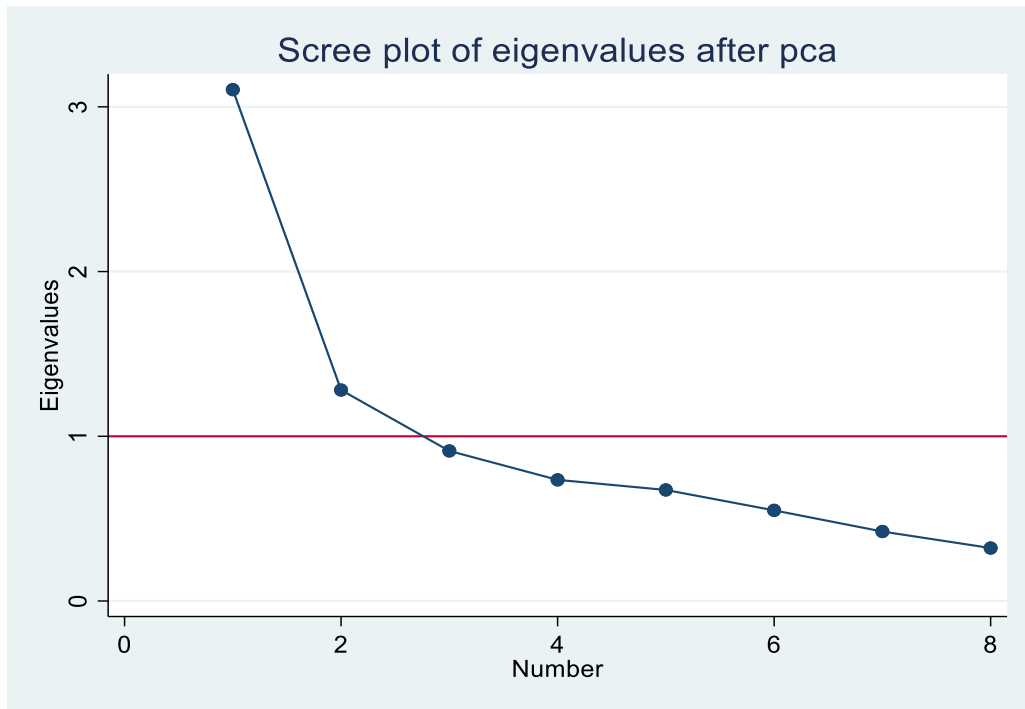


Figure 8.1 Screeplot of eigen vectors after PCA(Economic freedom)

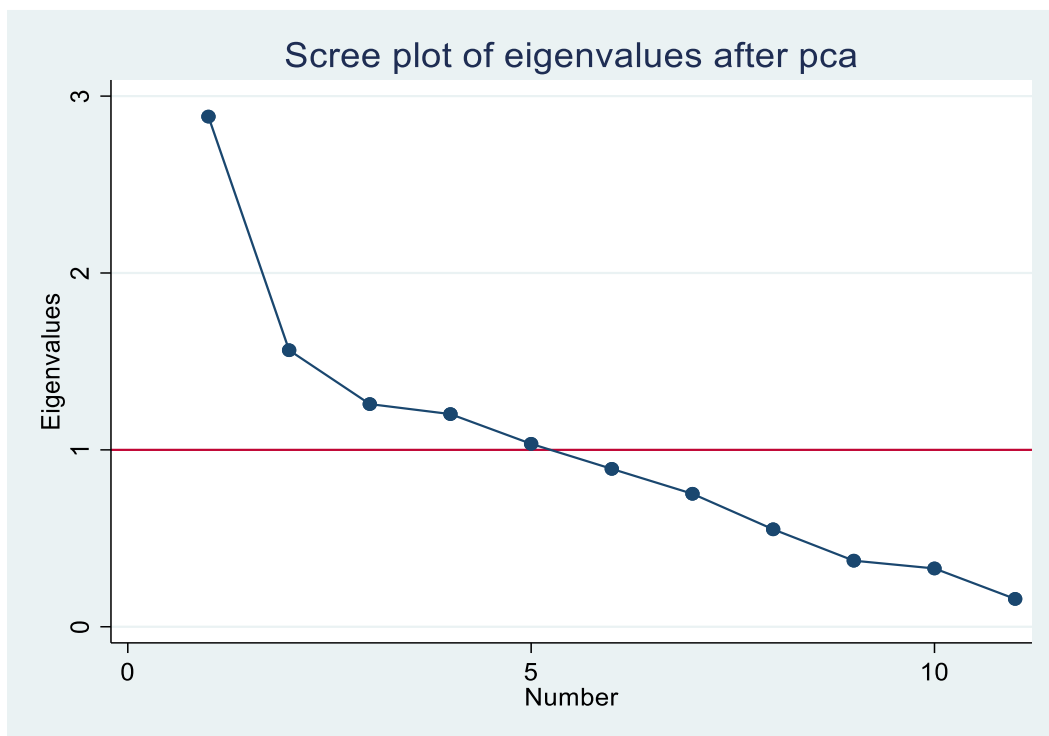


Figure 8.2 Scree plot of Eigenvectors after PCA(Infrastructure)

Appendix B: Trends of variables

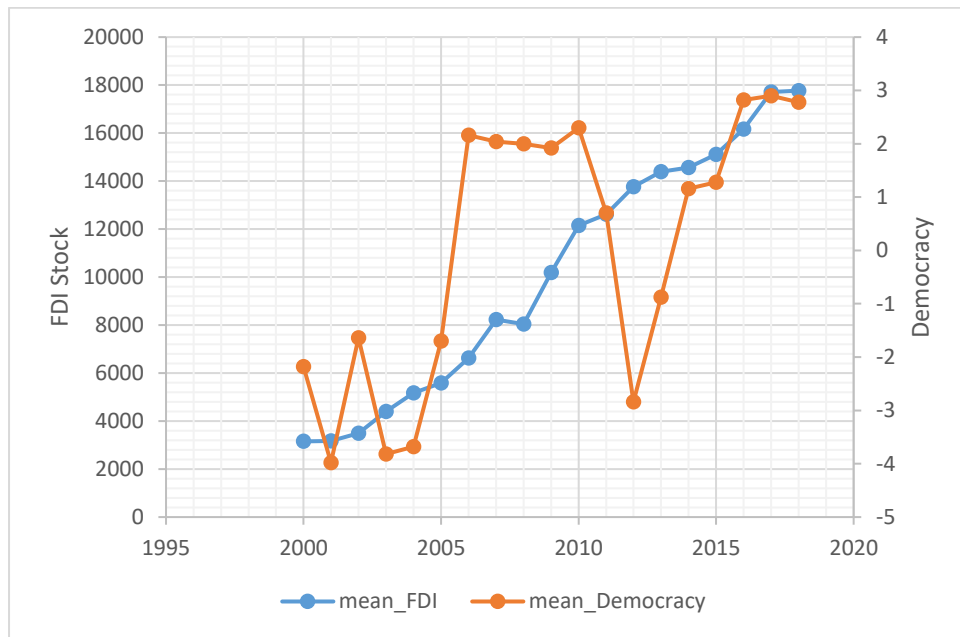


Figure 8.3 Mean Democracy Scores and FDI for Africa

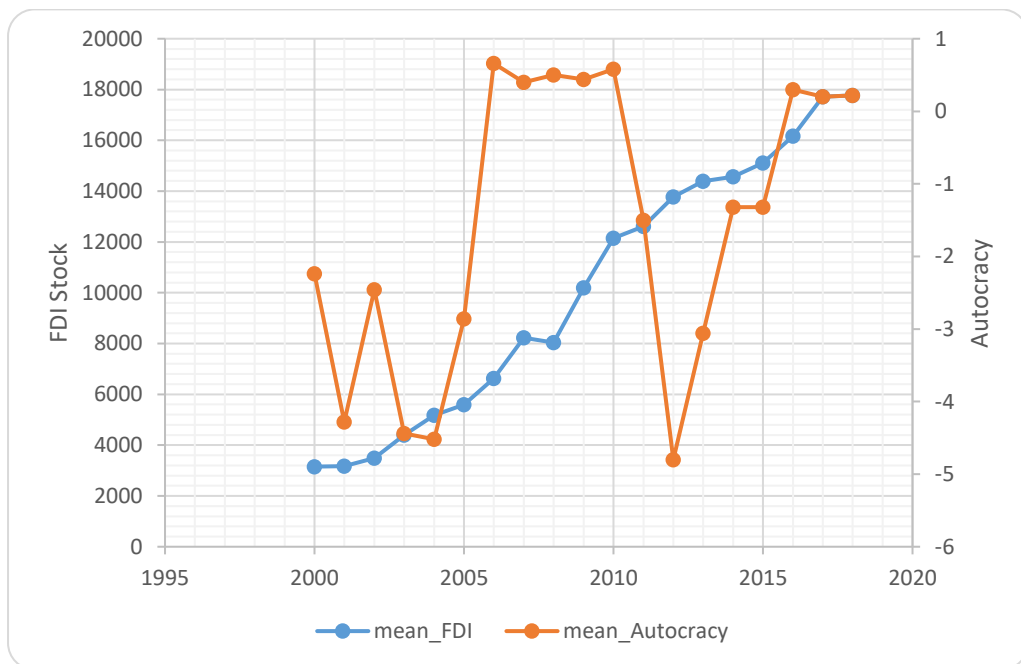


Figure 8.4 Mean Autocracy Scores and FDI for Africa

Appendix C: Classification of countries by FDI inflow and BITS

Table 8.1 Classification of FDI Stock (2000-2018)

Least 10 Recipients		Volume(\$M)	Top 10 Recipients		Volume(\$M)
1	Comoros	61.5883	10	Ghana	12508.2
2	Guinea-Bissau	74.7076	9	Mozambique	12548.2
3	Burundi	88.927	8	Algeria	16832.6
4	Gambia	336.322	7	Angola	23148
5	Central African Republic	404.442	6	Sudan	23998.4
6	Lesotho	511.739	5	Tunisia	24902.7
7	Eritrea	624.501	4	Morocco	37401.1
8	Rwanda	643.752	3	Nigeria	57222.8
9	Sierra Leone	730.158	2	Egypt, Arab Rep.	61517
10	Eswatini	751.193	1	South Africa	113149

Source: Author (2020)

Table 8. 2 Classification of countries by Average of Cumulative BITS signed since 1960

Least 10 Signatories			Most 10 Signatories		
No	Country	No BITS	No	Country	No of BITS
1	Sao Tome and Principe	1.15789	10	Ghana	25.6842
2	Guinea-Bissau	1.94737	9	Sudan	28.8421
3	Somalia	2.15789	8	Libya	30.4737
4	Lesotho	2.78947	7	Zimbabwe	31.1579
5	Togo	3.52632	6	Mauritius	35.5789
6	Seychelles	3.63158	5	Algeria	42.9474
7	Central African Republic	3.68421	4	South Africa	45.5789
8	Eritrea	3.78947	3	Tunisia	58.7368
9	Sierra Leone	3.94737	2	Morocco	67.6316
10	Liberia	4	1	Egypt, Arab Rep.	109.842

Source: Author (2020)

Appendix D: Panel summary statistics

Table 8.3 Summary Statistics

Variable		Mean	Std. Dev.	Min	Max	Obs	
FDISTOCK	overall	10190.73	22107.8	1.32311	179564.8	N =	934
	between		19738.17	61.58826	113149.4	n =	50
	within		10127.94	-68263.3	76606.13	T-bar =	18.68
BITS	overall	18.34105	19.50962	1	114	N =	950
	between		19.30772	1.947368	109.8421	n =	50
	within		3.861101	-5.29053	31.70947	T =	19
DEMOC	overall	0.070526	18.03954	-88	10	N =	950
	between		9.356886	-35.579	10	n =	50
	within		15.47689	-86.1926	40.64947	T =	19
AUTOC	overall	-1.55263	17.54953	-88	9	N =	950
	between		9.006466	-37.6842	9	n =	50
	within		15.11318	-89.1316	37.13158	T =	19
POLITY	overall	-2.01263	18.08095	-88	10	N =	950
	between		9.977778	-36.4737	10	n =	50
	within		15.14111	-87.9074	38.09263	T =	19
XCONST	overall	0.3	17.88647	-88	7	N =	950
	between		9.108111	-35.579	7	n =	50
	within		15.44479	-85.8579	40.87895	T =	19
CORRUP	overall	30.86833	10.61505	9	65	N =	950
	between		9.484279	15.92632	59.98836	n =	50
	within		4.943065	10.82443	57.53815	T =	19
EXR	overall	4.70E+08	4.90E+09	0.044468	7.40E+10	N =	944
	between		3.30E+09	1.219716	2.34E+10	n =	50
	within		3.64E+09	-2.29E+10	5.11E+10	T-bar =	18.88
TRADE	overall	83.18931	87.5184	19.1008	1053.426	N =	950
	between		78.34335	31.36137	586.6536	n =	50
	within		40.47475	-279.002	549.9615	T =	19
SCHOOL	overall	44.08185	23.69898	0.256001	118.3538	N =	858
	between		22.40052	6.413022	100.4521	n =	48
	within		9.970349	6.037169	78.80223	T-bar =	17.88
NATRES	overall	13.29899	13.37713	0.001134	84.2399	N =	864
	between		12.12387	0.006833	48.57129	n =	50
	within		5.948713	-12.7864	55.90868	T =	17.28
GDP	overall	3.38E+10	7.17E+10	3.50E+08	5.68E+11	N =	930
	between		6.43E+10	8.28E+08	3.05E+11	n =	50
	within		3.19E+10	-2.01E+11	2.98E+11	T-bar =	18.6
GDPK	overall	2041.707	2828.938	111.9272	22942.58	N =	930
	between		2502.703	208.3364	12461.44	n =	50
	within		1323.343	-8694.18	12522.85	T-bar =	18.6

Appendix E: Analysis of heterogeneity

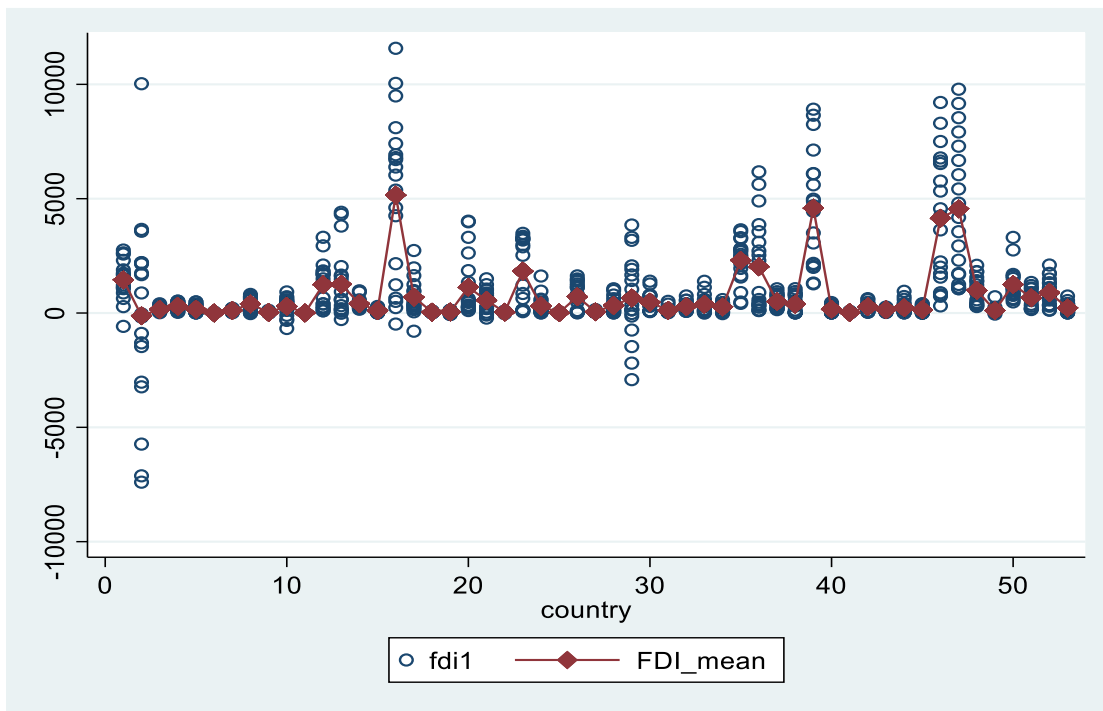


Figure 8.5 Panel heterogeneity in FDI

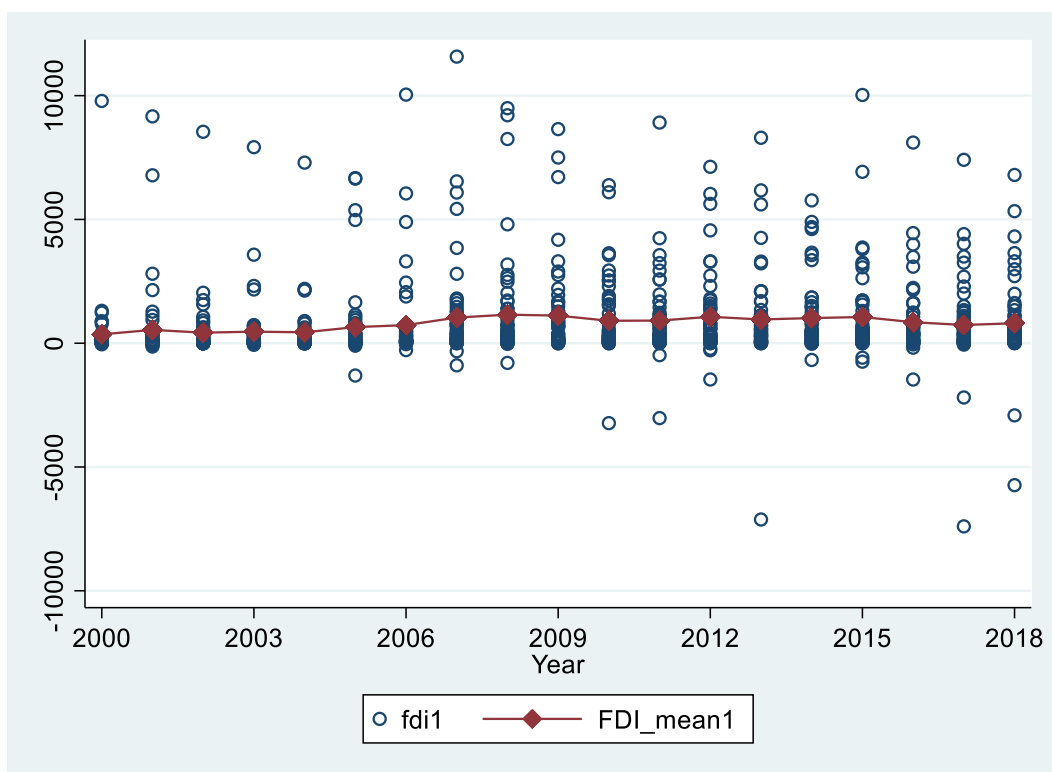


Figure 8.6 Heterogeneity across years (Foreign direct investment)

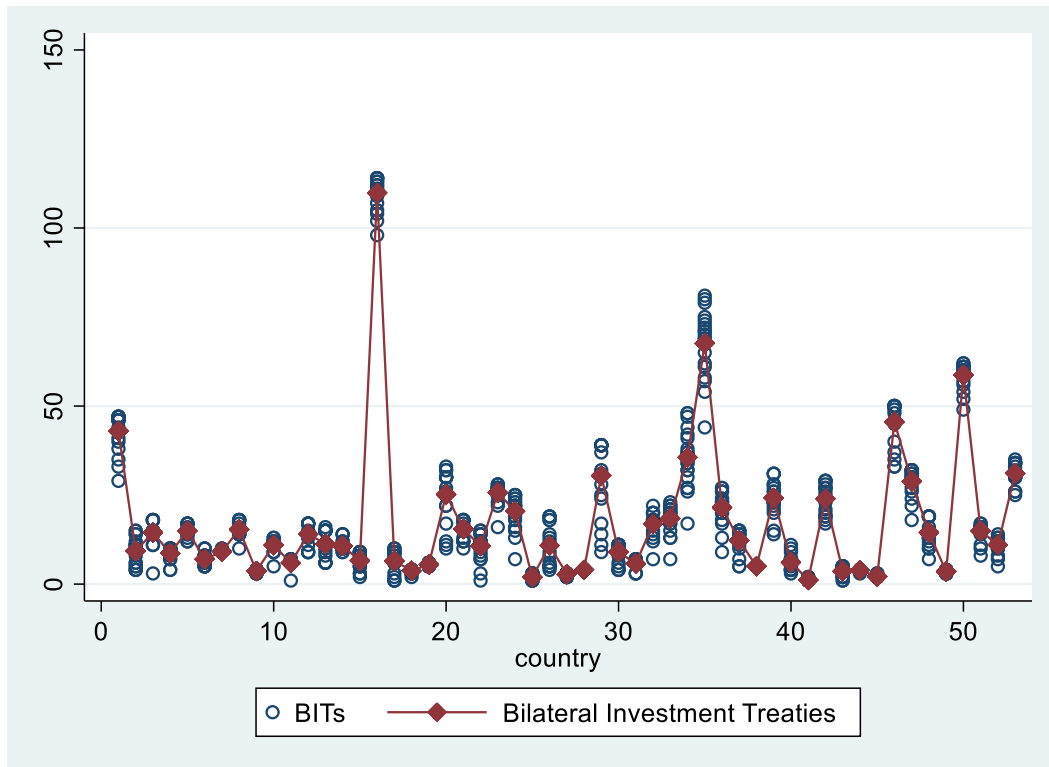


Figure 8.7 Heterogeneity by country

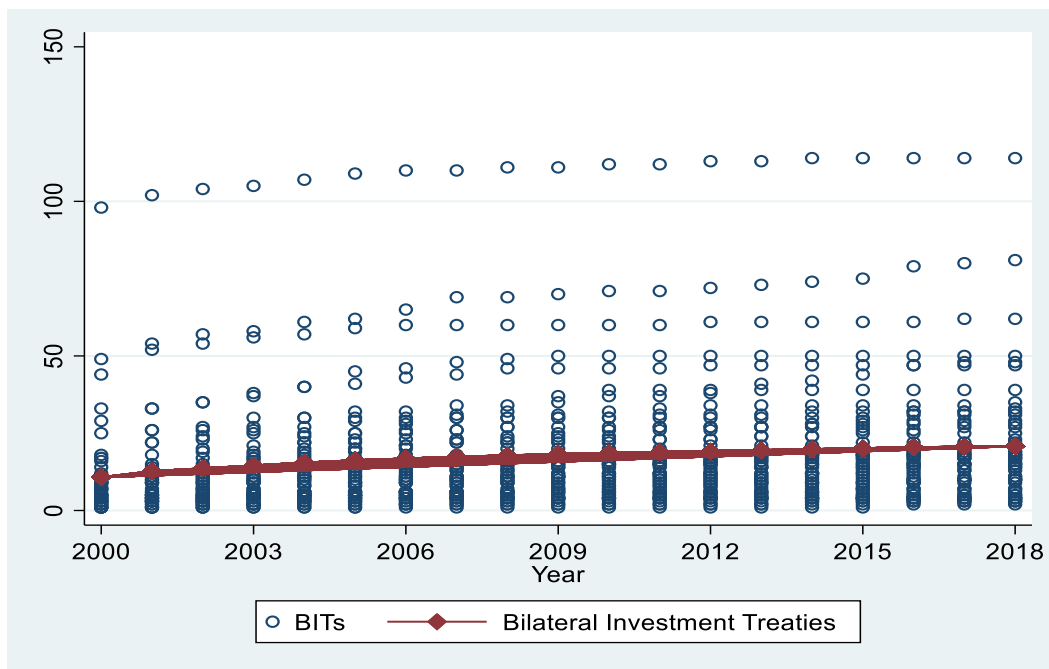


Figure 8.8 Heterogeneity by year

Table 8.4 Results of Stationarity Tests from Eviews 9.1

	ADF Fisher	P-value	PP Fisher	PV
FDI	190.062	0.000	254.366	0.000
AFDI	258.758	0.000	288.590	0.000
AID	176.031	0.000	222.029	0.000
Autocracy	41.899	0.001	23.522	0.171
BITs	386.695	0.000	893.992	0.000
Democracy	29.428	0.080	28.895	0.090
Durability	41.665	0.076	19.106	0.938
ExchangeR**	373.877	0.000	513.684	0.000
GDP	135.937	0.005	200.582	0.000
GDP per Capita	160.696	0.000	174.023	0.000
Inflation	130.895	0.000	169.409	0.000
Labour Quality Resource	102.525	0.002	219.594	0.000
Rents	145.808	0.000	128.593	0.007
PC1	182.779	0.000	184.100	0.000
PC2	225.919	0.000	227.588	0.000
PC3	123.084	0.059	127.377	0.034
PC4	407.289	0.000	682.778	0.000
Polity	73.924	0.000	60.488	0.000
Corruption	186.229	0.000	163.935	0.000
TOT	124.651	0.048	100.471	0.468
Trade	162.514	0.000	113.090	0.175
xconstraints	37.342	0.005	29.935	0.038

**Stationary at Difference

Appendix F: Further regression results

Table 8.5 Determinants of BITs Signing Proclivity

	(1) Bilateral Inv. Treaties Coef.	(2) Bilateral Inv. Treaties Coef.	(3) Bilateral Inv. Treaties Coef.	(4) Bilateral Inv. Treaties Coef.
L.FDI Stock	0.0018	0.0013	0.0014	0.0042
Gross Domestic Product	0.1844***	0.1803***	0.1802***	0.1833***
Freedom (PC2)	-0.0771	-0.0791	-0.0791	-0.0855
Terms of Trade	-0.0149			
L.Corruption	0.0666**	0.0664**	0.0664**	
Democracy	-0.0109***	-0.0109***	-0.0109***	
Trade Openness			-0.0001	
Autocracy				0.0172***
Freedom(PC1)				0.0740*
Constant	-1.5041**	-1.4702**	-1.4694**	-1.5489***
No. of Obs.	842.0000	842.0000	842.0000	842.0000
R-Squared	0.6184	0.6183	0.6183	0.6181
F Statistic	54.1875	56.6931	54.1578	56.6578

Table 8.6 Attractive Regions

	(1) Coef./t-stats.	(1) Coef./t-stats.
L.FDI Share	-0.0026 (-1.38)	-0.0028 (-1.50)
Gross Domestic Product	0.2354*** (10.76)	0.2207*** (10.02)
Efr. Index	-0.0275 (-0.42)	-0.0201 (-0.31)
L.Corruption	0.0532* (1.76)	0.0551* (1.83)
Polity Score	-0.0078*** (-2.92)	-0.0073*** (-2.73)
EAC		0.1803 (0.75)
NOA		1.0637*** (3.78)
SADC		0.0681 (0.28)
WAC		0.1163 (0.51)
Constant	-2.7732*** (-5.05)	-2.6811*** (-4.72)

Base group = Central African countries

Table 8.7 Effectiveness of BITS: Dependent variable: FDI inflow

	(11)	(12)	(13)	(14)	(15)	(16)
L.FDI	.184*** (-.026)	.178*** (-.027)	.178*** (-.026)	.179*** (-.031)	.169*** (-.023)	.206*** (-.055)
Foreign Aid	0.256** (-.093)	.254* (-.099)	.259* (-.104)	.298* (-.122)	.248*** (-.069)	.290* (-.11)
L.Inflation	-.273+ (-.161)	-.276 (-.185)	-.270 (-.183)	-.279 (-.200)	-.227+ (-.132)	-.263 (-.198)
Exchange Rate	-.009 (-.006)	-.010 (-.006)	-.010 (-.009)	-.012 (-.012)	-.008+ (-.004)	-0.011 (-.009)
France	.052** (-.019)					
Netherland		.038 (-.027)				
United States			.065 (-.056)			
UK				-.026 (-.044)		
China					.098*** (-.028)	
South Africa						.019 (-.038)
Constant	2.71 (-1.56)	2.83 (-1.58)				1.75 (-1.59)
Observations	882	882	882	882	829	882
Instruments	42	42	42	42	42	41
AR1 (p-value)	.296	.296	.295	.295	.301	.296
AR2 (p-value)	.377	.375	.376	.375	.365	.381
D-Hansen	.236	.183	.212	.257	.103	.105

Standard errors in parentheses, Dependent variable: Foreign direct investment
+ p<0.1, * p < 0.05, ** p < 0.01, *** p < 0.00, Time-fixed effects included

Table 8.8 Interactive effects of AGOA treaty

	(1)	(2)	(3)
L.FDI Stock	0.922*** (0.0322)	0.947*** (0.0163)	0.961*** (0.0154)
D.Exchange Rate	-0.0109** (0.00473)	-0.0161** (0.00686)	-0.0142*** (0.00458)
Trade Openness	0.0916** (0.0370)	0.0211 (0.0388)	0.204*** (0.0548)
AGOA	-0.638* (0.334)	-0.0723** (0.0305)	-0.135** (0.0579)
Gross Domestic Product	0.0580* (0.0334)		
<i>AGOA x GDP</i>	0.0257* (0.0141)		
Infrastructure(PC4)	0.122* (0.0649)	0.283*** (0.0978)	0.224*** (0.0525)
Polity Score		-0.0120* (0.00653)	
<i>AGOA x Polity</i>		0.0137* (0.00740)	
Resource Rents			-0.00114 (0.0168)
<i>AGOA x NATR</i>			0.0214 (0.0204)
Constant		-0.00437 (0.265)	
Observations	874	854	811
No. of instruments	47	48	46
AR1 (p-value)	0.00130	0.00153	0.00155
AR2 (p-value)	0.168	0.181	0.179
Hanse n-J (p-value)	0.188	0.108	0.387

Standard errors in parentheses

* p<0.10, ** p<0.05, *** p<0.010

Table 8.9 Interactive Effects of AGOA

	(1)	(2)	(3)
L.FDI Stock	0.958*** (0.0280)	0.981*** (0.0136)	0.971*** (0.0254)
D.Exchange Rate	-0.0144** (0.00619)	-0.0122** (0.00547)	-0.0133 (0.0122)
Trade Openness	0.0480 (0.0373)	0.110** (0.0516)	0.0362 (0.0416)
European Union	-0.0445 (0.285)	-0.0319 (0.0372)	-0.0202 (0.0351)
Gross Domestic Product	0.0374 (0.0321)		
<i>EU x GDP</i>	0.000153 (0.0121)		
Infrastructure(PC4)	0.0843 (0.0843)	0.138*** (0.0438)	0.226 (0.326)
Resource Rents		0.00985 (0.0127)	
<i>EUxNATR</i>		0.00245 (0.0129)	
Polity Score			-0.00383 (0.00692)
<i>EUxPolity</i>			-0.00367 (0.00501)
Observations	874	811	854
No. of instruments	49	46	47
AR1 (p-value)	0.00173	0.00151	0.00166
AR2 (p-value)	0.182	0.177	0.172
Hanse n-J (p-value)	0.107	0.115	0.181

Standard errors in parentheses

* p<0.10, ** p<0.05, *** p<0.010

Table 8.10 Interactive effects of WTO treaties

	(1)	(2)	(3)
L.FDI Stock	0.917*** (0.0255)	0.982*** (0.0198)	0.979*** (0.0118)
D.Exchange Rate	-0.0103** (0.00506)	-0.0118** (0.00571)	-0.0161*** (0.00372)
Trade Openness	0.0864*** (0.0293)	0.0187 (0.0224)	0.00857 (0.0120)
WTO Membership	-0.126 (0.482)	0.0771 (0.0985)	-0.0122 (0.0233)
Gross Domestic Product	0.0786** (0.0299)		
<i>WTO x GDP</i>	0.00526 (0.0207)		
Infrastructure(PC4)	0.0544 (0.0606)	0.116* (0.0678)	0.155*** (0.0490)
Resource Rents		0.0348 (0.0405)	
<i>WTO x NATR</i>		-0.0324 (0.0389)	
Polity Score			-0.0105*** (0.00334)
<i>WTO x Polity Score</i>			0.00979** (0.00415)
Constant	-1.562** (0.584)	0.0508 (0.213)	0.164 (0.133)
Observations	874	811	854
No. of instruments	47	48	49
AR1 (p-value)	0.00153	0.00168	0.00134
AR2 (p-value)	0.174	0.182	0.180
Hanse n-J (p-value)	0.251	0.180	0.362

Standard errors in parentheses

* p<0.10, ** p<0.05, *** p<0.010

Appendix G: Sampled countries

Table 8.11 Countries included in the study

Name of Country			
Algeria	Djibouti	Libya	South Africa
Angola	Egypt, Arab Rep.	Madagascar	Sudan
Benin	Equatorial Guinea	Malawi	Tanzania
Botswana	Eritrea	Mali	Togo
Burkina Faso	Eswatini	Mauritania	Tunisia
Burundi	Ethiopia	Mauritius	Uganda
Cabo Verde	Gabon	Morocco	Zambia
Cameroon	Gambia, The	Mozambique	Zimbabwe
Central African Republic	Ghana	Namibia	
Chad	Guinea	Niger	
Comoros	Guinea-Bissau	Nigeria	
Congo, Dem. Rep.	Kenya	Rwanda	
Congo, Rep.	Lesotho	Senegal	
Cote d'Ivoire	Liberia	Sierra Leone	

Table 8.12 Least developed countries

Name of Country			
Angola	Djibouti	Madagascar	Sudan
Benin	Equatorial Guinea*	Malawi	Tanzania
Burkina Faso	Eritrea	Mali	Togo
Burundi	Eswatini	Mauritania	Uganda
Central African Republic	Ethiopia	Mozambique	Zambia
Chad	Gambia, The	Namibia	
Comoros	Guinea	Niger	
Congo, Dem. Rep.	Guinea-Bissau	Rwanda	
Cape Verde	Lesotho	Senegal	
	Liberia	Sierra Leone	

Cape Verde graduated from the list in 2007 while Equatorial Guinea Graduated in 2017

Table 8.13 Landlocked countries in Africa

S/N	Country	S/N	Country
1	Burundi	11	Botswana
2	Ethiopia	12	Eswatini
3	Malawi	13	Lesotho
4	Rwanda	14	Burkina Faso
5	South Sudan	15	Mali
6	Uganda	16	Niger
7	Zambia		
8	Zimbabwe		
9	Central African Republic		
10	Chad		