# INFLOWS OF FOREIGN DIRECT INVESTMENT TO ECOWAS COUNTRIES: AN EMPIRICAL ANALYSIS

**TOLULOPE OMOSEFUNMI**

**Bachelor of Arts, Bells University of Technology, 2018**

A thesis submitted
in partial fulfilment of the requirements for the degree of

**MASTER OF ARTS**

In

**ECONOMICS**

Department of Economics
University of Lethbridge
LETHBRIDGE, ALBERTA, CANADA

INFLOWS OF FOREIGN DIRECT INVESTMENT TO ECOWAS COUNTRIES:
AN EMPIRICAL ANALYSIS


TOLULOPE OMOSEFUNMI


Date of Defence: December 12, 2022


Dr. P. Ghazalian      Associate Professor    Ph.D.

 Thesis Supervisor


Dr. A. Darku       Associate Professor    Ph.D.

Thesis Examination Committee Member


Dr. S. Malla       Professor      Ph.D.

Thesis Examination Committee Member


Dr. A. Akbary      Professor      Ph.D.

Chair, Thesis Examination Committee

# ABSTRACT

The importance of Foreign Direct Investment (FDI) for economic growth and development is much discussed in the economic growth and development literature. Inward FDI provides a source of capital for host countries, and it is particularly beneficial for developing countries through knowledge spillover, advanced technology transfers, and employment creation. The Economic Community of West African States (ECOWAS) is one of the main regional trade blocs in Sub-Saharan Africa (SSA), and it is primarily distinguished by having the greatest levels of FDI inflows among geo-economic regions in SSA. While there have been general increases in inward FDI over time, there remain various economic and political challenges and broad potentials to stimulate inward FDI to the ECOWAS region. This thesis investigates the determinants of FDI inflows to ECOWAS countries using panel dataset covering various countries and spanning from 2001 to 2019. The empirical research particularly focuses on the effects of trade openness and economic growth, among other factors, on FDI inflows to the ECOWAS region. Pooled Ordinary Least Squares (OLS), panel data random effect, and panel data fixed effect estimators are used to implement the regressions, and various empirical equations are specified. The empirical analysis initially executes the regressions for a sub-dataset that exclusively covers ECOWAS countries. Then, the empirical analysis is implemented for a broad dataset that covers a range of developed and developing countries to benefit from variations in the dataset. The main empirical results show important positive effects of trade openness on FDI inflows to the ECOWAS region. It also shows positive effects of economic growth, economic development, and infrastructure on FDI inflows to the ECOWAS region. These findings highlight the particular significance of trade openness and economic growth policies in stimulating FDI inflows to the ECOWAS region. Also, ECOWAS countries should adopt policies to achieve higher levels of economic development that is accompanied with improvement in economic and financial institutions, increases in human capital, and more developed infrastructure.

# ACKNOWLEDGEMENTS

**TABLE OF CONTENTS**

# LIST OF TABLES

# LIST OF FIGURES

# LIST OF ABBREVIATIONS

| | |
|---|---|
| FDI | Foreign Direct Investment |
| GDP | Gross Domestic Product |
| GMM | Generalized Method of Moments |
| MENA | Middle East and North Africa |
| MNEs | Multinational Enterprises |
| OECD | The Organization for Economic Co-operation and Development |
| RTA | Regional Trade Agreement |
| SSA | Sub-Saharan Africa |
| UNCTAD | The United Nations Conference on Trade and Development |
| UNDP | The United Nations Development Programme |
| WDI | World Development Indicators |

**CHAPTER ONE**

**INTRODUCTION**

## 1.1 FDI in the ECOWAS Region

Foreign Direct Investment (FDI) is a multinational investment in which an investor or a company acquire a long-lasting interest in a foreign company. The Organization of Economic Co-operation and Development (OECD) (2008, p. 17) defines FDI as "*a category of cross-border investment in which an investor resident in one economy establishes a lasting interest in and a significant degree of influence over an enterprise resident in another economy*". It further explains that when FDI happens, "*the direct investor owns at least 10% of the voting power of the direct investment enterprise*" (OECD, 2008, p. 17). FDI inflows to destination countries often occur as mergers, acquisitions, or partnerships in manufacturing, services, retail, and logistics.

There are many economic benefits that are derived from FDI to the source and destination countries. Several studies (e.g., Williams, 2002; Lensink and Hermes, 2004; Krugman, 2008) show that FDI flows allow multinational enterprises to retain their foreign customers and to acquire new customers by partnering with host countries to establish subsidiaries where their foreign customers reside in. In addition, these multinational enterprises benefit from low-wage and abundant labour (particularly unskilled labour in developing countries). They also benefit from reduced costs of operations, tax incentives provided by many governments to attract foreign investments to the local economies, access to national resources (e.g., oil, minerals, metals), selling product and services to neighbouring markets (particularly to regional countries with which there are trade agreements), and access to resources in neighbouring countries.

The host country economies benefit from inward FDI through job creation, talent training, increase in income and standard of living, more stable exchange rates, efficient production of goods and services due to increased market competition level between local firms and foreign affiliates of multinational companies, infrastructural development, and innovation (Blomström *et al.*, 2000). Inward FDI can be a vehicle for technology and know-how transfers that could significantly promote economic growth, particularly in developing countries.

Borensztein *et al.* (1998) indicated that FDI generates benefits to host countries through advanced technology transfers as result of the role of multinational enterprises in product and process research and development in essential sectors in the economy. In this context, Blomström *et al.* (1994) conducted a study on the spillover effect of technology through FDI to domestic firms. The findings portray significant nexus between imported technologies affiliated with local investment as competitors as well as growth output. The study findings thus provide evidence to support the importation of foreign technology to host countries. In the same vein, the study of Kokko and Blomstrom (1995) examined a similar effect of technological inflows from foreign affiliates of multinational enterprises of the United States (US), and they found that technological inflows through multinational enterprises promote competition in local markets in the host countries. On the spillover effect of knowledge from FDI to host countries, the empirical findings in Silajdzic and Mehic (2015) affirmed the contribution of FDI through knowledge spillover to economic growth. also, they indicated that government expenditures on research and development for advanced technology positively influence the performance of the economic growth.

Host countries benefit from FDI through capital accumulation; evidence showed that capital inflows increase through the medium of the balance of payment, and capital inflows ultimately enhance production and cause a rise in exports (Mishra *et al.*, 2017). Multinational enterprises promote host countries' economic growth through asset transactions that involve

2

capital for production and exports (Temiz and Gokmen, 2014). The enterprises support industrial development through labour-intensive (skill development and training) (Chudnovsky, 1993).

FDI often leads to creation of job opportunities that positively impact the living standard of the people through the execution of projects with huge capital (Aga, 2014). In this context, Hill (2009) found that multinational enterprise increases both direct and indirect job opportunities with host countries that have a sufficient labour force. The mandate of direct labour employment by multinational companies could be by host country policies while indirect labour employment is encouraged when multinationals target resources supply locally which contributes to expenses incurred domestically.

Host countries also benefit from FDI through the operations of foreign affiliates of multinational enterprises that raise competition in the domestic market (Kurtishi-Kastrati, 2013). Increases in market competition would compel domestic firms to increase their operational efficiency, embark on process, product, and market research and innovation, and would often lead to cost reductions in domestic companies' production. Also, multinational corporations draw funds through FDI to improve the output of production in the host countries and subsequently subsidize costs of production in the local market, hence, the trading influence of companies operating domestically is usurped by multinational corporation through the monopoly market dominance effect.

Sub-Saharan Africa (SSA) is one geo-economic destination of FDI inflows, which are mainly driven by natural resources (e.g., agricultural resources, oil, metals, and minerals), labour abundance, business, and economic strategies, and changing geo-economic landscape, among other factors. Over the last few decades, many regional trading agreements have been established in SSA. The Economic Community of West African States (ECOWAS), which was established in 1975, constitutes a prominent Regional Trade Agreement RTA in SSA.

ECOWAS membership consists of 15 West African countries; eight ECOWAS members are French-speaking countries (Benin, Burkina Faso, Cote d'Ivoire, Guinea, Mali, Niger, Senegal, and Togo), five members are English-Speaking countries (The Gambia, Ghana, Liberia, Nigeria, and Sierra Leone), and two members are Portuguese-speaking countries (Cabo Verde, and Guinea-Bissau). The ECOWAS region features a large and growing population and a wide land surface area of 5,112, 903 km$^2$. The estimated total population in the ECOWAS region stood at 371.4 million in 2021.

ECOWAS member countries are characterized by different macroeconomic and socio-economic features. Tables A.1-A.15 of the Appendix show representative statistics on some main macroeconomic indicators for individual ECOWAS countries. These statistics are presented as averages over five-year intervals (2001-2005, 2006-2010, 2011-2015, and 2016-2020). They show some significant variations across ECOWAS countries and over time. For instance, the average statistics over 2016-2020 show that economic growth rates were relatively small or negative in some countries (e.g., Cabo Verde, Liberia, Nigeria) and relatively high for some other countries (e.g., Cote D' Ivoire, Guinea, Niger, Senegal). Also, there are significant variations in population trade openness and GDP across ECOWAS countries. The statistics highlight some considerable growth in primary school enrolment over time across ECOWAS countries. Finally, they show that net FDI inflows (% GDP) vary significantly across ECOWAS countries and over time. For example, the average statistics over 2016-2020 show that net FDI inflows (% GDP) are relatively lower in some ECOWAS countries (e.g., Benin, Burkina Faso, Nigeria, Togo) and relatively higher in some other ECOWAS countries (e.g., Cabo Verde, Ghana, Guinea, Sierra Leone). The corresponding variations reflect the different national characteristics and economic and political conditions across ECOWAS countries.

The ECOWAS region has received some important FDI inflows over the last few years. It is characterized by having the highest levels of FDI inflows among SSA sub-regions. As

such, an empirical examination of FDI inflows to the ECOWAS region is particularly important to understand current and future trends and to evaluate and propose economic policies. Figure 1 presents the aggregate net FDI inflows to the ECOWAS region, and it shows that FDI inflows have been generally rising from 2001 to 2011 (from US$1,990 million in 2001 to a peak of US$19,543 million in 2011). However, from 2012 onward, FDI inflows to ECOWAS have been on a decreasing trend, reaching US$8,051 million in 2020. Several factors could explain such decreases, including macroeconomic performance, political instability, slow infrastructure development, business environment, and unfavourable economic policies and climate, among others.
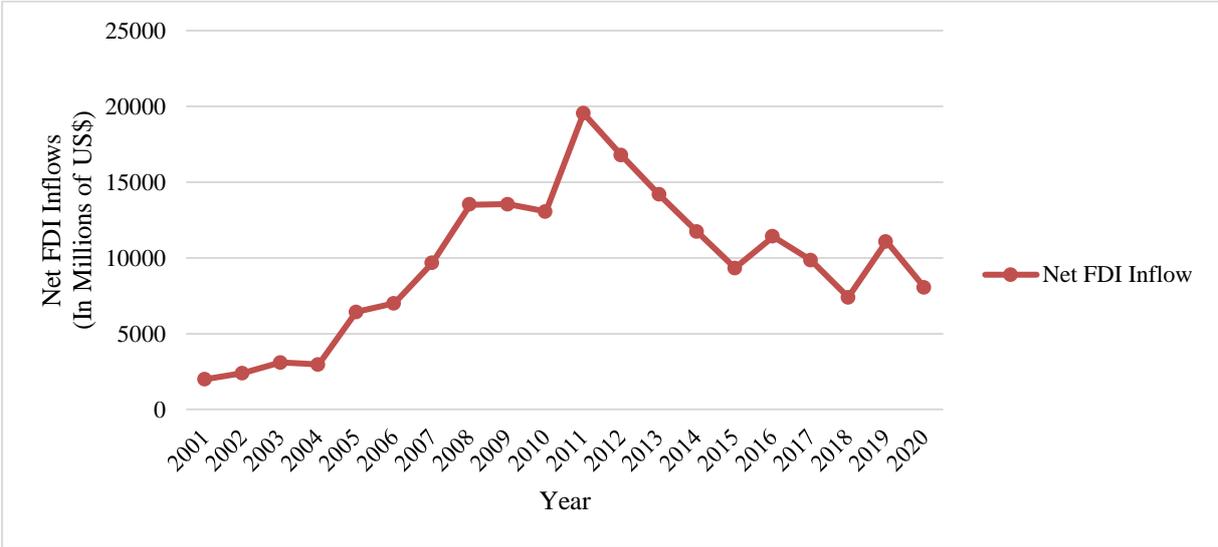


**Figure 1.1. Aggregate Net FDI Inflows to ECOWAS region**

ECOWAS countries are well-positioned for trade and investment opportunities on account of their geographical location, and these geo-economic features would likely play a significant role in attracting higher FDI levels in absolute terms, and relative to SSA geo-economic regions. Figures 2-16, show that there are significant variations in FDI inflow levels and patterns across ECOWAS countries, which likely reflect their varying economic and geo-economic features (e.g., economic size, economic development, resource endowments) and conditions over time. Nigeria, Ghana and, to some extent, Cote D'Ivoire constitute major economies in the ECOWAS

region. They are well-endowed in natural resources, and they have economic and geo-economic characteristics that allow them to attract higher levels of FDI inflows compared to other ECOWAS member countries. Also, Nigeria has the largest market size in the ECOWAS region and a prominent economic and financial hub in West Africa (Lagos). As discussed earlier, those features would normally attract higher levels of FDI inflows, *ceteris paribus*. Many ECOWAS countries continue to encounter economic, political, and social challenges (e.g., economic and political instability, weak institutions, deficient infrastructure, migration, and environmental degradation in the region), which may negatively affect the prospect of those economies attract higher levels of inward FDI.

There is a range of empirical literature that analyzed inflows to developed and developing countries (Sahiti *et al.*, 2018; Saini and Singhania, 2018; Sabir *et al.*, 2019; Nguyen, 2021), and there are few empirical studies that examined the determinants of FDI inflows to the SSA region (Morris and Aziz, 2011; Cleeve, 2012; Okafor *et al.*, 2017; Hossain *et al.*, 2018; Nangpiire *et al.*, 2018). Meanwhile, empirical studies that focused on examining the factors that determine FDI inflows to the ECOWAS region remain scant. As previously indicated, there are economic and geo-economic peculiarities in the ECOWAS region and significant heterogeneities across ECOWAS member countries that warrant such detailed empirical analysis. Furthermore, it is particularly important to determine whether the extended regional market effect of ECOWAS has led to increases in FDI inflows to the ECOWAS region. In this context, Jaumotte (2004) examined whether the market size of regional trading blocs influences FDI inflows. Using a panel dataset of 71 countries over 1980-1999, Jaumotte (2004) found positive effects of regional market size on FID inflows to the regional trading blocs and that this effect varies across member countries with different macroeconomic and geo-economic characteristics. The positive effects stem from the extended market size that simulates multinational enterprises to undertake market-seeking FDI in host countries. Also, the

elimination/reduction of trade barriers among RTA member countries will facilitate business operations across foreign affiliates in different member counties and, therefore, will encourage FDI inflows to the regional trading bloc. Jaumotte (2004) also indicated that the RTA-driven FDI inflows may not be uniform across member countries, implying that the extended regional market effect could be more significant for some member countries. Many other studies show positive effect of RTAs' extended market size on FDI inflows (e.g., Blomstrom and Kokko, 1997; Dunning, 1997; Cherif and Dreger, 2018). Also, Medvedev (2012) showed that FDI inflows to a given RTA member country increase with the market size of other RTA member countries, consistent with the positive effect of extended regional market size on FDI inflows.

## 1.2    Regional Trade Agreements

There is a general accord that developing countries would economically benefit from free trade (Huff 2000). Because of SSA's low share of global trade, some have viewed RTAs in SSA as vehicles for promoting trade, realization of economies of scale, and market access for long-term economic growth and development (Ogunkola, 1998). However, the trade-enhancing benefits of RTAs are not obvious. Preferential trade agreements, according to Bhagwati and Panagariya (1996), are two-faced because trade liberalization following RTAs may come at the expense of discrimination or trade diversion. Also, trade benefits from RTAs could be naturally reduced in the absence of adequate infrastructure and human capital, and when there exist political instabilities and violence.

Viner (1950) described the welfare effects of RTAs and highlighted two counteracting effects: trade creation and trade diversion. Trade creation implies increases in trade flows among member countries following the formation of RTAs, leading to increases in economic welfare. In contrast, trade diversion implies decreases in trade from non-member countries to member countries following the formation of RTAs, and it is associated with negative effects on economic welfare, Then, the net effects of RTAs on welfare are determined by contrasting

7

the positive trade creation effects and the negative trade diversion effects. With the possibility of RTAs having either positive or negative effects, Magee (2008) concluded that the net effects must be guided by country-specific economic features and structures and data evidence.

Besides ECOWAS, SSA has many other RTAs such as the Common Market for Eastern and Southern Africa (COMESA), the East African Community (EAC), the Southern African Development Community (SADC), and the Community of Sahel-Saharan States (CSSS). These are RTAs in which member countries have significantly reduced tariff barriers by RTA policy commitments (with tariffs following high-to-low trends over time), and adopted a policy to encourage intra-regional trade. The reductions in intra-regional import duties have been accompanied by general increases in trade flows between member countries. For example, the average tariff rate in the COMESA region over 1995-2004 was 18 percent. Intra-COMESA export and import values totaled about 1.7 billion and 1.9 billion US dollars, respectively, during this period. Following a reduction in the average tariff rate to 12% between 2005 and 2014, intra-COMESA export and import values increased significantly to 7.5 billion US dollars and 8.0 billion US dollars, respectively (Udeagha, 2017; Ngepah and Udeagha, 2018). Some other RTAs in SSA, such as the Central African Economic and Monetary Community (CEMAC), the Economic Community of Central African States (ECCAS), and the Inter-Governmental Authority on Development (IGAD), are characterized by continuously high tariff levels over time. These are regional trading blocs where member countries appear to have failed to significantly reduce tariff barriers over time.

There are arguable economic benefits to reducing intra-regional tariff rates. First, decreases in RTA partner's tariff rate can increase trade by allowing easier access to the partner's market, and by achieving efficiency and economies of scale. Meanwhile, a reduction in the home country's tariff levels on goods and services coming from other member countries has also been linked to scale expansion and thus more exports to meet foreign demand (Tybout

8

*et al.*, 1991). These factors are most likely at work in regions with persistently high tariffs, which correspond to lower levels of trade.

## 1.3    Overview of the ECOWAS Agreement

The United Nations Economic Commission for Africa (UNECA), which had divided Africa into regions for economic development purposes in the 1960s, was the inspiration for the creation of ECOWAS. ECOWAS was founded on May 28, 1975, and it currently comprises all West African countries except for Mauritania, which withdrew its membership from ECOWAS in 1999 (see sub-section 1.1 for the full list of ECOWAS countries). The initial goal of ECOWAS was to achieve regional integration and economic growth to create a single West African economic zone. Later, the scope of the project was expanded to include political and security concerns. The ECOWAS Treaty aims to establish an economic and monetary union that focuses on the elimination of tariffs and equivalent taxes, the introduction of a common external tariff, and the alignment of economic and sectoral policies (ECOWAS, 2022). ECOWAS amended its Treaty in 1993, among other things, to include the concept of supra-nationality in the implementation of its decisions.

From its inception in 1975 to the late 1980s, the performance of ECOWAS was not stellar, and its level of regionalization was generally poor. According to Abass Bundu (a former Secretary General of ECOWAS), many factors have contributed to these weak results, including the lack of a development and integration culture in the ECOWAS region, the priority that is often given to national programs following independence, and ideological and approach differences. Other considerations include member countries' fears of Nigeria's dominance, the strain of some social and economic systems inherited from the colonial era, economic problems, and political issues (Bundu, 1997, p 4). There appears to be a renewed push among ECOWAS countries to boost their output to meet their objectives and remain competitive in the ever-

changing global economy. Since the beginning of the 1990s, ECOWAS' output has started to improve.

ECOWAS includes many institutions, such as the Authority of Heads of State and Government, the Council of Ministers, the Community Parliament, the Economic and Social Council, the Community Court of Justice, and the Executive Secretariat. Also, ECOWAS has many financial institutions such as, ECOWAS Bank for Investment and Growth, ECOWAS Regional Investment Bank, and ECOWAS Regional Development Fund are its financial institutions. There are also many specialized agencies such as, the West African Health Organization, the West African Monetary Agency, the West African Monetary Institute, the Conference of Ministers of Youth and Sport, the ECOWAS Gender Development Centre, the Water Resources Coordination Unit, and the ECOWAS BROWN CARD Secretariat.

## 1.4    Relationship between RTAs and FDI

The number of RTAs has been significantly increasing over time. Figure 17 which is derived from the World Trade Organization (WTO) shows that the cumulative number of RTAs in force has been continuously increasing over time. As of March 2022, 354 RTAs are in force worldwide (WTO, 2022).
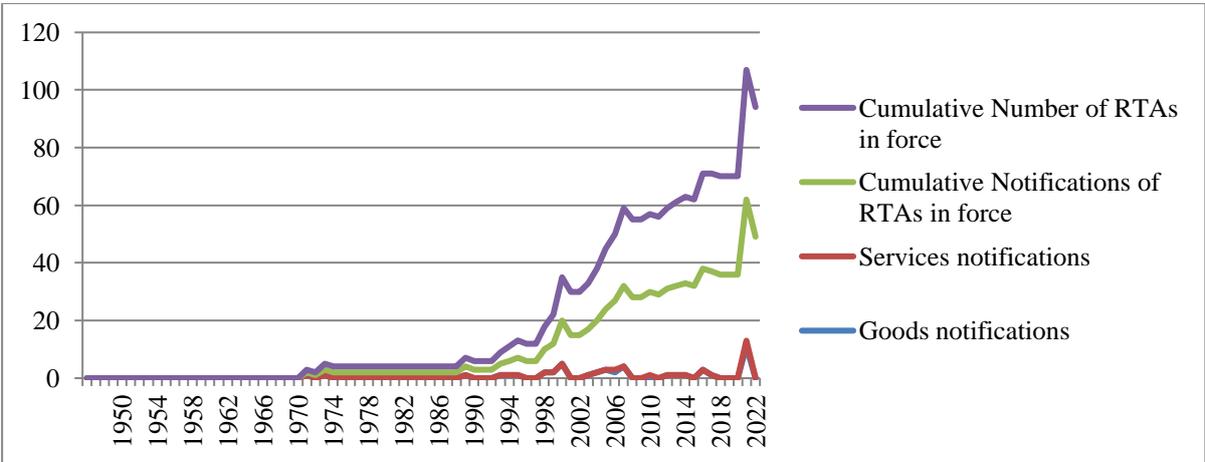


**Figure 1.2. Number of RTAs (1948-2022)**

As noted earlier, many economic benefits are associated with the formation of RTAs through increases in intra-regional trade between member countries, higher competition levels leading to greater efficiency, knowledge and technology spillovers, and economies of scale. Also, the formation of RTAs often leads to political cooperation and security collaboration that reduce conflict and maintain regional peace. However, there are economic costs from RTAs, for instance, through trade diversion effect from lower-cost non-member countries. Moreover, the formation of RTAs would generate a larger regional market that enhances capital formation and increase domestic and foreign investments, including inward FDI.

RTAs have the potential to influence FDI incentives in a variety of ways (Blomström and Kokko, 1997; Blomström *et al.*, 2001). The reduction or elimination of tariff and non-tariff barriers amongst RTA member countries, as well as the application of a common external tariff against non-members, are typically part of the implementation of RTAs. Hence, there are favourable impacts on FDI inflows from external countries and regions to the regional bloc. Specifically, the improved market accessibility among member countries due to lower trade barriers will make the regional trading bloc attractive to foreign investors and multinational enterprises. However, there are equivocal impacts on intra-regional FDI, which are dependent on the structure and motivations for prior investment.

Borenzstein *et al.* (1995) discussed that larger market size is likely to have a positive impact on FDI inflows from abroad. They indicate that FDI has a significant start-up cost, which leads to higher returns on scale and makes larger markets more profitable investment opportunities than smaller markets. Due to the significant initial R&D investments, firms whose competitiveness is based on intangible assets generated via Research and Development (R&D) tend to realize stronger increasing returns to scale. The market size impact mostly affects market-seeking FDI, but vertical FDI (motivated by a cost-cutting motive) may also be boosted

11

if the output is meant for other RTA members. If the average level of external protection rises or is expected to rise because of the RTA, inter-regional FDI may increase as well.

In terms of intra-regional FDI, lower internal tariffs tend to minimize the incentives for tariff-jumping FDI (where multinational enterprises avoid tariffs, by substituting cross-border trade with FDI), but also enable vertical FDI, which delocalized production to nations that have the best location advantage. Lowering internal tariffs should not have a negative impact on intra-regional FDI motivated by the exploitation of intangible assets. Finally, the large efficiency gains brought about by RTAs might lead to better growth rates and possibly more R&D, boosting both interregional and intraregional FDI. Even if an RTA raises overall FDI levels, the increase is unlikely to be fairly distributed among the members. On the contrary, it is more likely to be geographically concentrated among RTA member countries which have the greatest geographical advantage. Existing manufacturing facilities may also be reformed and concentrated in these same nations, suggesting a loss of existing FDI for countries with less advantageous geographic locations. Such a situation is more likely to occur in industries and sectors that have substantial economies of scale compared to transportation expenses, such as more technology-intensive industries.

There have been some studies in the international economics' literature that examine the implications of RTAs for inter-regional and intraregional flows of FDI. Following a literature review, Dunning (1997) concluded that the Internal Market Programme (IMP) in Europe had favourable impacts on both inter-regional and intra-regional FDI in the European Community (EC), but the IMP effects on inter-regional FDI are determined to be stronger than those on intra-regional FDI. Dunning indicated that the IMP effects on FDI follows through market size, income levels, the structure of economic activity, and agglomeration economies.

Blomström and Kokko (1997) found that the Common Market of the South (MERCOSUR) – which was formed in 1991 by Argentina, Brazil, Paraguay, and Uruguay–has

led to a significant rise in FDI inflows into the area, mainly into Argentina and Brazil. They noted the extended market effect of MERCOSUR and the impacts of the substantial privatization projects, which could have contributed to the growth in FDI (Chudnovsky *et al.*, 1995). Also, they indicated that achieving macroeconomic stability was a prerequisite for the favourable FDI response to occur in these countries and that FDI inflows into the MERCOSUR area were not evenly distributed across member countries.

## 1.5    Thesis Objectives

Inward FDI is often considered an important factor that encourages economic growth in developing countries and generates economic benefits through knowledge and technology spillover, job creation, and increases in competition level. FDI inflows to SSA remain in general below FDI inflows to other developing geo-economic regions. As such, it is important to understand the factors that determine FDI inflows to SSA and to derive governmental and regional policies that would raise FDI inflows. SSA contains some regional trading blocs, among which ECOWAS constitutes a prominent model. ECOWA was established in 1975 and includes 15 countries that are characterized by significant macroeconomic and socio-economic diversity, and that attempted to reduce trade barriers, increase trade, and promote economic cooperation among member countries over time.

The basic objective of this thesis is to empirically examine the determinants of FDI inflows to ECOWAS countries using a panel dataset covering various countries spanning the period of 2001-2019. This thesis investigates whether the determinants of FDI inflows affect FDI inflows to the ECOWAS region differently; it empirically estimates ECOWAS-specific coefficients in the empirical model. The empirical analysis is conducted in the spirit of the initial study of Asiedu (2001) which examined the factors that affect FDI inflows to SSA. The focus of the empirical analysis especially lies on the marginal effects of economic growth and trade openness, among others, on FDI inflows to the ECOWAS regions. Based on the empirical

analysis, the thesis will derive some inferences over the enlarged market effect of ECOWAS on FDI inflows to member countries.

The formation of regional trading blocs is expected to influence the incentives of multinational enterprises to undertake FDI to benefit from improved market accessibility among member countries due to lower trade barriers, to establish regional business networks, and to realize economies of scale through their regional operations. Nevertheless, the positive effects of RTAs on FDI inflows may be curtailed due to various factors such as deficient infrastructure, corruption, and political instability. Based on the empirical results, this thesis will provide a discussion and present policy recommendations for ECOWAS member countries and for the ECOWAS organization to increase inward FDI to the ECOWAS region and to specific member countries. The empirical analysis will be carried out using the random effect and fixed effects models, and it accounts for endogeneity and multicollinearity issues. It also accounts for heteroskedasticity through robust standard errors.

The significance of this study lies centrally in the need to keep FDI constantly under the limelight as one of the major sources of capital in developing countries such as those in the ECOWAS region. However, from FDI theories, many factors may play a role in attracting inward FDI. For a region such as ECOWAS featuring countries of diverse characteristics, unearthing determinants – especially those peculiar to the region – is important for the ECOWAS region to increase FDI inflows, benefit from the regional extended market, and match other developing geo-economic regions in terms of FDI inflows. Hence, this study will inform the governments in the ECOWAS countries as well as the ECOWAS organization on factors and policies that (1) promote FDI inflows to the ECOWAS region and (2) attract inward FDI to individual ECOWAS countries (including those that are less resource-endowed such as Benin, Niger, and Togo).

## 1.6    Thesis Organization

This thesis is structured as follows. Chapter 2 presents a literature review that covers studies examining the determinants of FDI, those that analyzed FDI in Africa, and those that examined the relationships between FDI and RTAs. Chapter 3 presents the various theories and concepts of FDI and overviews the reasons for FDI. Chapter 4 presents the empirical model, data and variables, and it provides descriptive statistics and discusses the empirical model and econometric methodology. Chapter 5 presents and discusses the empirical results, and Chapter 6 provides concluding remarks and policy recommendations.

# CHAPTER TWO

# LITERATURE REVIEW

Numerous empirical studies have been undertaken worldwide to determine the elements that affect FDI inflows. The empirical research in this study can be classified into three main groups: the first group contains empirical studies that explored the determinants of FDI. The second group contains studies that investigated FDI in Africa, while the third group contains studies that investigated the relationships between RTA and FDI.

## 2.1    Determinants of FDI

Bengoa and Sanchez Robles, (2003) examined the relationship between the inflows of FDI, economic freedom, and the recipient country's economic growth by using panel data analysis for a sample of 18 Latin American countries. The time range of data used in this study is from 1970 to 1999. In this study, they concluded that FDI has a strong positive impact on enhancing the economic growth rate of the recipient countries, but the magnitude of the impact on long-term economic growth is dependent on the absorptive capacity of the recipient countries, in terms of human capital, sufficient infrastructure, economic stability, and liberalized markets.

Considering both bilateral and geographically weighted third-country drivers of FDI, Baltagi *et al.* (2007) empirically tested the general equilibrium theory of trade and multinationals. They used trade costs (distances) as spatial weights since the dependence among host markets is mainly tied to multinationals' commerce between them. Their numerical simulation findings of a knowledge capital model with three factors and three countries provide some testable hypotheses for bilateral FDI. In the case of horizontal export-platform FDI, it is crucial that bilateral FDI supplement exogenous bilateral and third-country drivers. They discovered, in particular, that the replacements for vertical and complicated vertical FDI are

likely to be the bilateral and third-country impacts of changes in skilled and unskilled labour endowments.

Ang (2008) researched the determinants of FDI in Malaysia. The main objective of the research was to investigate the drivers of FDI for Malaysia to enrich analytical and policy discussions using yearly time series data for the period 1960-2005. Results from the analysis revealed that increasing levels of financial growth, infrastructural development, and trade openness encourage FDI from a policy perspective. A higher statutory corporation tax rate and an increase in the real exchange rate, on the other hand, seem to deter FDI inflows. Intriguingly, the findings also appear to imply that increased macroeconomic uncertainty encourages a greater influx of FDI.

Cole *et al.* (2009) studied the determinants of intra-country FDI flows in China by investigating whether FDI is drawn to areas with excellent governance and strong anti-corruption efforts, using proxies for provincial government efficiency and anti-corruption effort. They observed that provinces with relatively high levels of government efficiency and an aggressive commitment to anti-corruption efforts attract FDI. They suggested that to promote government efficiency and therefore attract more foreign direct investment, the central government should raise investment in public goods, public services, government size, and national welfare in those provinces with above-average standards of living.

Ghazalian (2009) investigated how FDI in food processing might change as a result of trade liberalization. According to his research, a shift in the relative pricing of basic agricultural products has a significant impact on foreign direct investment in the food-processing industry. He pointed out that repercussions on FDI in the food-processing industry are expected since the implementation of trade agreements influences the cost of basic products. The magnitudes of these impacts, however, depend on the weight given to other criteria included in the FDI

selection formula, the success of liberalization plans, and the extent to which non-tariff obstacles take the place of tariffs.

Ismail (2009) used a semi-gravity model to examine the determinants that affect foreign direct investment in ASEAN (Association of Southeast Asian Nations) nations. The findings showed that, in addition to market size for the host and source countries, additional factors such as proximity to borders, shared languages, and expanded markets relative to distance draw foreign direct investment. Additional macroeconomic characteristics that help to draw in more FDI include a lower rate of inflation, somewhat higher exchange rate, and effective budget management by the government. In addition to economic reasons, social ones like solid infrastructure and telecommunications, as well as non-economic ones like trade policy and transparency, attract more investors to come to ASEAN nations.

Kok and Ersoy (2009) use the fully modified Ordinary Least Squares (OLS) and cross-section Seemingly Unrelated Regression (SUR) techniques to examine whether FDI determinants have an impact on FDI in 24 developing countries from 1983 to 2005. The findings showed that FDI interactions with specific FDI determinants have a significant positive influence on economic development in developing nations, but FDI interactions with total debt service as a percentage of GDP and inflation had a negative effect. They stated that the communication variable is the primary factor influencing FDI.

Berger *et al.* (2013) examined the effect of FDI admission methods and dispute resolution procedures in both RTAs and bilateral investment treaties (BITs) on FDI inflows from 1978 to 2004. They discovered that FDI only responds well to RTAs when they have lax entrance standards. The role of dispute resolution clauses is minimal. While BIT responses are less discriminatory, with foreign investors reacting favourably to the sheer presence of BITs, RTAs without robust investment clauses may even inhibit FDI.

To enrich policy discussions, Kinuthia and Murshed (2015) compared the determinants of FDI in Kenya and Malaysia from 1960 to 2009. The data analysis using vector autoregressive approaches showed that FDI led to growth in Malaysia's industrial sector but not in Kenya. In terms of policy, Malaysia's success in luring significant FDI inflows in contrast to Kenya during this time is attributable to variations in macroeconomic stability, trade policies, infrastructure, and institutional variables.

To investigate the variables that affect the flow of FDI to the rapidly developing BRICS (Brazil, China, India, Russia, and South Africa) and MINT (Mexico, Indonesia, Nigeria, and Turkey) nations, Asongu *et al.* (2018) carried out a panel analysis on factors that determine foreign direct investment in rapidly expanding economies using a pooled time-series cross-sectional analysis of data from 2001 to 2011. The findings show that the most significant factors in luring FDI to BRICS and MINT are market size, infrastructural accessibility, and trade openness, but the importance of institutional quality and the existence of natural resources is negligible. To guarantee that their economies can absorb significant skills and technology spillovers from FDI and foster sustained long-term economic development, BRICS and MINT governments are advised to spend more on their human capital.

Ghazalian and Amponsem (2019) used indices provided by the Fraser Institute and the Heritage Foundation to analyze how Economic Freedom (EF) and its sub-components affect FDI. The findings demonstrated that EF has a positive impact on FDI inflows. The results also show that EF sub-components like rule of law, market openness, and a less onerous regulatory environment have different effects on FDI inflows.

Using the Generalized Method of Moments (GMM) method, Sabir *et al.* (2019) examined the influence of institutional quality on Foreign Direct Investment (FDI) inflows in lower-middle, upper-middle, and high-income countries from 1996 to 2016. The empirical findings support the notion that institutional quality influences FDI favourably across all groups

of nations. They noted that significant determinants of FDI inflows in developed countries than in developing ones include corruption, government effectiveness, political stability, regulatory quality, rule of law, and voice and accountability. They conclude that institutional quality has a larger role in FDI in developed countries than in developing ones.

## 2.2     FDI in Africa

Asiedu (2002) investigated if sub-Saharan African (SSA) nations were affected differently by variables that impact FDI in developing nations. The findings show that although greater infrastructure and higher returns on investment have a positive effect on FDI to non-SSA nations, they have little to no effect on FDI to SSA. Additionally, increasing trade openness encourages FDI into both SSA and non-SSA nations, while SSA only gains a little advantage from the increased openness. The researchers deduced from the findings that FDI in Africa is different and proposed that strategies that have worked in other countries would not work as well in Africa.

Fedderke and Romm (2004) assessed the impact and determinants of FDI for South Africa by observing the period from 1960 to 2002. The study was conducted through the Error Correction Model (ECM). In this study, they concluded that inward FDI has a positive impact on the GDP of the country, but in the short-run, and it has a substitution effect on the domestic investment of the country.

Using time series data spanning the years 1970 to 2007, Edoumiekumo (2009) utilized the Johansen cointegration method to analyze how FDI and economic development in Nigeria interact. The study's findings revealed a positive and statistically significant correlation between FDI and economic expansion. The Granger causality test was used to confirm a bi-directional causal relationship between FDI and economic growth.

Tintin (2012) conducted research on 125 nations, including 58 developing, 29 least developed, and 38 developed economies, to investigate the impact of FDI on economic development. The study utilized data from 1980 to 2010 using a panel ordinary least square method. For all the chosen economies, the study's results showed a correlation between FDI and economic growth that was positive.

For research spanning the years 2000 to 2010, Djurovic (2012) used deductive logic and OLS methodologies to examine how FDI affects economic development in developing nations. She discovered a positive relationship between FDI and economic development and stated that it only has a positive influence on economic growth when accompanied by increasing government expenditure.

Using cross-country regressions from 1996 to 2008, Anyanwu (2012) sought to understand why FDI inflows to African nations flow in the specific directions they do. The findings of the regression analysis demonstrated that trade has a positive effect on FDI flows and that there is a positive association between market size and FDI inflows. The study also discovered that, although the predominance of the rule of law enhances FDI inflows, stronger financial development has a negative impact on those inflows. They noted that increased FDI follows foreign assistance and that the endowment and exploitation of natural resources (such as oil) draw significant FDI. To increase FDI inflows, they advised African nations who are assistance recipients to develop policies that strengthen their economic ties with the donors.

The effect of FDI on economic development in Ghana was studied by Sackey *et al.* (2012) using a variety of econometric approaches, including Vector Auto Regression, Johansen cointegration tests, and Augmented Dickey-Fuller tests. They found a positive and statistically significant association between FDI and economic development, as well as unidirectional causation from FDI to economic growth using time series data spanning the years 2001 to 2010. The findings of Antwi and Zhao (2013) reached similar conclusions. The main differences

between the two studies are the research's time frame, which was expanded to include the years 1980 to 2010, and the inability to examine any potential causal relationships between FDI and economic development in the study by Antwi and Zhao (2013).

Yaqub *et al.* (2013) examined the relationship between the inflow of FDI and economic growth in Nigeria. The period of data used in this study was from 1980 to 2006. This study was conducted through the Granger causality-testing framework. In this study, they concluded that there is no causal relationship between the inflows of FDI and the GDP of the country.

Rogmans and Ebbers (2013) explored the determinants influencing FDI in the Middle East and North Africa (MENA) region using panel data from 1987 to 2008. They discovered that, whereas trade openness promoted FDI inflows, natural resource presence had the reverse impact. According to the findings, governments with considerable natural resource endowments are more likely to enact protectionist legislation, which reduces potential FDI from multinational enterprises that are interested in acquiring such resources.

Breivik (2014) investigated the determinants influencing Chinese FDI in 49 African nations from 2003 to 2011. According to the findings, Chinese FDI in Africa is drawn to nations with significant markets and natural resources. There is little indication that Chinese external FDI is more attracted to natural resources in countries with weak institutions and significant political risk, according to the findings. The results show that excellent institutions in conjunction with natural resources influence Chinese FDI in Africa. When it comes to market and natural resource searching, the results imply that Chinese investors in Africa are similar to other investors in Africa.

Keho (2015) investigated the causality relationship between the inflows of FDI, exports and economic growth for 12 SSA countries over the period 1970 to 2013. The study was conducted through the Granger causality framework. The findings of this study revealed the

existence of a bidirectional causality relationship between the inflows of FDI and GDP and the existence of a unidirectional causality relationship running from GDP to exports in Ghana. It also revealed the existence of bidirectional causality relationships between the inflows of FDI and exports in Benin, the existence of unidirectional causality relationship between the inflows of FDI and exports in Kenya, the existence of bidirectional causality between the inflows of FDI and GDP in Cameron and South Africa, and the existence of a bidirectional relationship between the inflows of FDI and GDP and exports in Congo.

Elboiashi (2015) looked at how FDI affected growth in a sample of a few chosen developing nations between 1970 and 2005. The Generalized Method of Moments GMM panel data approach revealed that FDI had a positive effect on economic development, but the extent of this benefit was influenced by the circumstances in the receiving nation. The findings of the study demonstrated that factors such as trade openness, domestic investment, infrastructural expansion, human capital, financial market development, and institutional quality all contribute to economic growth.

Anyanwu and Yameogo (2015) examined regional heterogeneity across 53 African nations in five areas of Africa (Central, East, North, Southern, and West Africa) from 1970 to 2010 to assess the determinants that drive FDI. The estimates are done using the GMM and OLS approaches. The results showed that, except for Central Africa, the agglomeration has a substantial positive association with FDI inflows and that, in all five areas, FDI inflows and GDP per capita had a negative relationship. In Central Africa, the GDP growth rate is positively correlated with FDI inflows, whereas this link is not as positive in West Africa. Except for East Africa, all five of the areas demonstrated positive relationships between FDI inflows and democracy, infrastructure, and trade openness. Only in West Africa does the degree of urbanization have a significant positive correlation with FDI inflows, but in East, North, and Southern Africa, net foreign aid has a negative correlation with FDI inflows. Higher life

expectancy discourages FDI inflows to Central Africa but encourages it to East and North Africa, whereas political unrest constituted a major barrier to FDI inflows to West Africa.

Worku (2016) used yearly panel data for seven East African nations from 1970 to 2015 to conduct an empirical study on the effect of FDI on economic development in the area. To display a panel of short, medium, and long-run impacts for the whole area as well as individual nations, the techniques of panel autoregressive distributed lag and random effect models as well as time scaling wavelet decomposition analysis were utilized. A positive and statistically significant association between FDI and economic development in these nations was evident from the long-run estimated coefficients.

Using dynamic GMM estimators, Zekarias (2016) examined how FDI affected economic development in 14 East African nations from 1980 to 2013. The results show that FDI has a positive and very substantial impact on economic growth. As a result, it was determined that FDI in Eastern Africa is a significant contributor to economic expansion and a catalyst for conditional economic convergence.

Yapatake (2017) used time series data spanning the years 1996 to 2014 to investigate the sluggish FDI inflows and growth in the Central African Republic. The quality of public administration, domestic credit to the private sector, increase in the gross domestic product, and power generation was determined not to be statistically significant using the error correction model (at a 0.05 level of significance). The article suggested that the nation upgrade the national power supply business to provide a steady supply of electricity to attract FDI.

Awolusi (2018) used a panel dataset from 1980 to 2016 to examine the determinants of FDI inflows. The estimate methodologies were OLS and GMM in this study. The ratio of FDI inflows to GDP represented the FDI inflow variable, while the independent variables were agglomeration effects, trade openness, fiscal balance-macroeconomic condition, market size,

economic insecurity, exchange rate, foreign aid, human capital development, corporate tax, and natural resource endowment. The findings show that first-year FDI lag (agglomeration effects), trade openness, market size, economic instability, foreign aid, human capital development, and natural resource endowment (oil and metals) had positive and significant effects on FDI inflows to Africa, while there is a negative relationship between FDI inflows to Africa and fiscal balance (public debt), exchange rate, and corporate tax. During the research period, the study indicated that government policies and non-policy variables played important roles in encouraging FDI inflows into Africa. In addition, African nations must enhance their regulatory environment to attract more FDI. Reform and improvement of macroeconomic policies, institutional quality, and natural competitive advantages should also be prioritized.

## 2.3    RTAs and FDI

Hicks (2007) examined the effects of RTAs and FDI inflows in 105 countries (both developing and developed) from 1970 to 2003. After adjusting for alternative explanations and endogeneity issues, he discovered that increased degrees of RTA economic scope and independence create better FDI inflows into poor countries, but more autonomous RTAs limit inbound FDI migration into affluent countries.

Ghazalian and Furtan (2009) investigated the impact of the Canada-US Free Trade Agreement (CUSFTA) on trade, sales of multinational businesses' foreign affiliates, and total bilateral commerce (the sum of trade and sales of foreign affiliates) in the manufacturing sector from 1983 to 1998. A gravity-based model led the research, which accounted for trade and the operation of overseas affiliates as alternate strategies for entering international markets. The findings revealed that the CUSFTA increased inbound and outward trade between the United States and Canada, but it also resulted in a considerable decrease in sales of their international affiliates in the equivalent CUSFTA partner countries. This result shows that the CUSFTA's trade-generating impact has been exaggerated.

Im (2016) investigated the impact of RTAs on FDI in the United States (US) using data on the sales destinations of overseas subsidiaries of the US multinational enterprises (MNEs), while also addressing the endogeneity of RTA creation. He discovered lower horizontal FDI from intra-RTA countries while increasing export-platform and overall FDI from non-RTA countries. Furthermore, RTAs have a positive overall impact on extra-RTA FDI, but the effects are ambiguous on intra-RTA FDI. The findings support the influence of economies of scale in interconnected markets in attracting extra-RTA FDI.

Cherif and Dreger (2018) evaluated the influence of South-South trade agreements on multinationals' FDI decisions, considering the Agadir, Mercosur, and ASEAN free trade agreement (AFTA) accords. Three panels of nations are outlined, with members either joining or not joining a given agreement. Non-Gulf Arab nations are compared to better-performing areas in Latin America, Southern and Eastern Asia, and the Middle East. The study shows that openness to international trade and financial markets are important drivers of FDI, given that business-friendly institutions exist in the host country. Because RTAs affect market size by lowering trade barriers, their effect is seen via GDP growth and openness. The pacts provide significant benefits to Latin America and Asia, but not to Arab governments. To attract greater FDI, this study recommended business-friendly institutional changes and measures to assist new company foundations.

Duong *et al.* (2019) investigated the effects of various trade agreements and FDI inflows on Vietnamese trade flows between 1996 and 2014. According to gravity model estimation, bilateral trade agreements with the United States (US) and Japan have resulted in the most significant increase in Vietnamese exports and imports, while the effects of other regional trade agreements including Vietnam are more mixed. They also discover evidence of complementing Vietnamese trade and FDI, with the positive link between FDI and exports getting greater after bilateral trade agreements with the United States and Japan.

Meguerian-Faria (2020) investigated the link between international trade legislation, FDI, and developing-country economic development. He argued that a developing country must capture the right mix of different types of FDI to promote domestic growth, and he used the principles of law, economics, and finance to examine the importance of BITs versus RTAs to FDI inflows, and how they affect economic growth in developing countries. To demonstrate the idea, he examined FDI inflows and national regulatory governance in Brazil and Mexico. He proposes that the purpose of developing nations' foreign trade policy should go beyond just encouraging FDI inflows but concentrate on supporting the optimal mix of FDI inflows that would encourage long-term investment and sustained economic development.

Duong *et al.* (2021) studied the link between Free Trade Agreements (FTAs) and inward FDI in Vietnam using panel data for Vietnam's 17 key international investors from 1997 to 2016, and 23 partners from 2005 to 2016. Gravity model results suggest that these agreements are connected with higher FDI inflows overall, with a substantially bigger influence in the sub-period. They also discover evidence of vertical FDI's predominance in Vietnam. A closer look at the latter sub-period reveals that FTAs have a considerable impact on inbound FDI through interactions with the real exchange rate, human capital, and factor endowments. Surprisingly, all three FDI determinants have become more relevant after the FTAs.

## 2.4    Other Studies

Kim and Seo (2003) examined the dynamic relationships between the inflows of FDI and GDP in South Korea. This study was conducted by employing quarterly data ranging from 1985 to 1999. This study was analyzed within the vector autoregression (VAR) model. In this study, they found that the inflows of FDI have some positive impact on GDP, but the impact is not significant.

Tang *et al.* (2008) investigated the causal link between domestic investment, FDI, and economic development in the Chinese economy from 1988 to 2003 using a multivariate VAR system with an Error Correction Model (ECM). The data supported unidirectional causation between FDI and economic development, leading them to infer that FDI, via domestic investment, aids in the acceleration of economic growth, while also aiding in capital accumulation.

Vu (2008) investigated the impact of FDI on economic growth in Vietnam by observing the period from 1990 to 2002. The study was conducted through the Generalized Least Square (GLS) estimation method. In this study, Vu (2008) found that the inflows of FDI have a significant and positive effect on labour productivity and GDP, but the effect is not equally distributed among different economic sectors.

Falki (2009) investigated the impact of the inflows of FDI on the GDP of Pakistan. The range of data that this study used was from 1980 to 2006. In this study, the regression analysis method was employed. This study found a negative but statistically insignificant relationship between the inflows of FDI and GDP.

Kundan and Gu (2010) investigated the link between FDI and Nepal's GDP using secondary data from 1980 to 2006. The Granger causality paradigm was used to perform this investigation. They discovered a long-term unidirectional causation link between FDI influx and GDP in this research, with the direction of causality running from FDI inflows to GDP.

Khaliq and Noy (2007) investigated the link between FDI inflows and GDP in Indonesia. The increased production function definition and regression approaches were used in this investigation. The data included in this empirical investigation ranges from 1997 to 2006. In this research, they determined that FDI inflows had a positive influence on GDP in aggregate, but when they examined its impact on various economic sectors of the economy, the estimated

findings for each sector of the economy were different. The influx of FDI was shown to have good benefits in certain industries, but negative or even no influence in others.

Using panel data from 2000 to 2009, Jadhav (2012) explored the role of economic, institutional, and political determinants in attracting FDI to BRICS nations. While the availability of natural resources had a negative influence on FDI, market size, trade openness, and rule of law had significant effects, indicating that FDI in the BRICS is largely market-oriented. According to the findings, political instability, voice and accountability, and the battle against corruption all had a negative influence on FDI inflows into the BRICS, but efficient governance and good regulatory standards had a positive impact.

Brenner, (2014) conducted a study in 112 developed and less developed economies excluding oil-exporting countries for the period 1974 to 2010, and reported a mixed result on the effect of FDI on economic growth. Employing the GMM technique for his analysis, there was evidence of a negative effect of FDI on economic growth in less developed economies and a positive effect of FDI on economic growth in more developed economies.

# CHAPTER THREE

# THEORETICAL CONSIDERATIONS

## 3.1     The Concept of FDI

FDI is regarded as one of the main tools for enhancing a nation's economic system, particularly in developing nations. It is the process through which citizens of one nation come into possession of assets to dominate the production, distribution, and other operations of a company in another nation (Kojima, 2010). MNCs that use diverse spillover effects on the host nations are mostly responsible for this (Hailu, 2010). The most common kind of spillover is the transfer of technology that directly supports the expansion of the productive capital stock, technical advancement, the transfer of management skills, and access to direct markets. FDI makes it possible for nations with limited access to capital, to increase their physical capital, create jobs, increase production capacity, improve the managerial and technical skills of their labour forces, and integrate their domestic economies into the globalized world (Hailu, 2010).

According to another definition, FDI is the net inflows of investment used to purchase a long-term management stake (10 percent or more of voting shares) in a company that operates in a different economy than the investors. According to this definition of FDI, the foreign investor must maintain a long-term connection with the company while exercising significant influence or control over the management of the company (Alfaro *et al.*, 2003). Similarly, Damgaard *et al.* (2019) view FDI as more than merely a money transfer. It is any flow of credit to or acquisition of ownership in a foreign company that is owned to a significant extent by domestic enterprises of the investing nation.

### 3.1.1 The Benefits and Drawbacks of FDI

Both the advantages and disadvantages of FDI must be taken into account when creating a policy (Moosa, 2002). Even if FDI-friendly policies have taken hold in recent years, two opposing perspectives on how FDI affects emerging countries still exist. The host nation allegedly benefits from FDI since it receives new technology and job prospects. The opposite argument, however, claims that FDI has more harmful effects than advantageous ones (Teshome, 2010).

#### i. Positive perspectives on FDI

Another possibility for bridging the gap between savings and necessary investment is via FDI. In addition to financial resources, foreign businesses bring with them investment expertise, entrepreneurial spirit, and technical know-how that are lacking in native businesses. Various methods may be used to transfer these abilities to domestic businesses. To reduce governments' budget deficits, MNCs may be required to pay a profit tax (Todaro, 1992).

The entire quantity of foreign currency that may be acquired via exports and net public assistance is insufficient to meet LDCs' needs. By eliminating all or a portion of the deficit in the balance of payments, FDI may assist narrow the gap. Additionally, multinational firms that produce exportable goods may create positive net export revenue (Sen, 2010). By generating job possibilities and linking the host country's economy to the global economy, FDI may also have a significant impact (Kurtishi-Kastrati, 2013).

#### ii. Negative perspectives on FDI

A group of academics actively disagrees with pro-FDI viewpoints. First, they contend that multinational firms raise the income of those with low incomes, who are not likely to have much saved up. The difference between savings and investments cannot be addressed if people do not save enough. Local firm development and investment may also be hampered by foreign

companies that fail to reinvest their profits in the host nation and import input and intermediate items from their affiliates abroad. Due to the effect that international corporations have on locally-based businesses, FDI may also prevent the development of unique capabilities (Sen, 2010). It is anticipated that the government would be able to reduce its budget deficits by collecting earnings taxes from international corporations or foreign direct investors. Governments often engage in exclusive contracts with foreign businesses in exchange for tax advantages, tariff protection, and exemptions from investment regulations. These factors lead the potential tax revenue to either fall short of or decline considerably. Additionally, most foreign direct investors engage in tax avoidance and evasion. By paying fraudulently inflated costs for intermediate goods bought from foreign subsidiaries via the use of transfer pricing strategies, for instance, these corporations may diminish their local profit margins (Bryant and White, 2019).

## 3.2 Types of FDI

FDI is often grouped to separate the operational perspective of the investing nation from that of the invested country. From the standpoint of the investing nation, FDI is divided into three categories: horizontal, vertical, and conglomerate. From the standpoint of the receiving nation, it is divided into three categories: increasing exports via FDI, substituting imports, and government-initiated FDI (Pazienza, 2014). More detailed discussions of these FDI types are presented next (Moosa, 2002).

### 3.2.1 Horizontal FDI

The term "horizontal FDI" describes the kind of investment made by businesses when they produce the same product or provide the same service in another nation as they do in their own. The company builds a global network of manufacturing and distribution facilities at the same level of its value chain via horizontal FDI. With this kind of FDI, businesses may gain from

being close to significant resources as well as component, service, and technology providers. As a result, businesses may save on transportation costs associated with shifting production facilities and trade costs related to providing services to customers in various locations. Additionally, this form of FDI could enable the company to diversify its manufacturing locations on a geographical basis. By sharing the risks of changes in its operational expenses via geographic diversity, the company may adjust its capacity utilization in response to changes in the local environment or fluctuations in demand (Herger and McCorriston, 2016).

The bigger markets in the receiving nations are thought to have a significant role in attracting horizontal FDI. Larger marketplaces provide more chances for businesses to benefit from economies of scale, according to Markusen (2000). As a result, when a nation's market reaches a certain size, MNCs will make investments there. Furthermore, it is thought that the standard of the infrastructure and the availability of trained labour in the recipient nation are two important factors in attracting horizontal foreign investment (Herger and McCorriston, 2016). Loewendahl (2001) argues that because a substantial portion of horizontal foreign investment includes the transfer of cutting-edge technology, MNCs should only target nations with adequate infrastructure and trained labour.

### 3.2.2   Vertical FDI

The term "vertical FDI", also known as "efficiency-seeking FDI", describes corporate investments where several stages of the corporation's activities, from the acquisition of raw materials through manufacturing and distribution, are situated in other nations. It is more likely that this kind of FDI will be drawn to countries with lower labour costs and other input costs of production compared to the investing countries since it is thought to be primarily driven by cheap labour, raw materials, and other production variables available overseas (Shi, 2019).

Backward vertical FDI and forward vertical FDI are the two variants of vertical FDI. A foreign investment made to create intermediate goods that will be utilized as inputs in the manufacturing processes of the nation of origin or any of its subsidiaries is referred to as a "backward vertical FDI". In the past, backward vertical FDI most often benefited extractive sectors like oil refineries, copper mines, tin mines, and so on. On the other hand, forward vertical FDI occurs when a company sells its domestic goods outside of its place of origin or uses locally produced inputs to produce the finished items in the target country. Less often used than backward vertical FDI is forward vertical FDI (Shi, 2019).

### 3.2.3   Conglomerate FDI

FDI of the conglomerate kind encompasses both vertical and horizontal investment patterns. A global conglomerate firm is a multifaceted business that produces goods with characteristics from both its vertical and horizontal investments (Herger and McCorriston, 2016).

### 3.2.4   Export-Increasing FDI

This type of FDI is mainly stimulated by the investing firm's intention to export new sources of inputs such as raw materials or other intermediate products from the invested country to their home country and/or to other countries where the subsidiaries of the parent company are located. It can also occur if the invested country has more flexible FDI policies for the multinational firms and, therefore, the multinational firms want to take benefits from it and use it as a base for exporting their products to their neighbouring countries (Pazienza, 2014).

### 3.2.5   Import-Substituting FDI

Import-substituting FDI refers to a situation in which the import of products or services is replaced by the production of those products or services in the recipient country that was previously exported by foreign firms. This type of FDI mainly arises when there is a huge demand for the products in the recipient country and the foreign firms produce the product in

the recipient market rather than serving it through exports. Other factors that give rise to this type of FDI are the existence of higher transportation costs and/or trade barriers such as quotas and tariffs that are imposed by the government of the recipient country on imports (Pazienza, 2014).

### 3.2.6 Government-Initiated FDI

This type of FDI, which is more prevalent in the least-developed countries, is a government-supported investment that is started by the policymakers of the recipient countries by providing various types of incentives to foreign firms. Foreign investment is encouraged by governments to increase employment, reduce regional disparities, and reduce the country's balance of payments deficit (Pazienza, 2014).

### 3.3    Reasons for FDI

The strategic reasons for entering a foreign market are different from one firm to another since every firm has its strategic intentions and policies for entering into its target markets. Dunning (2000) illustrates the three main strategic motives which he believes are the most important strategic reasons of the firms behind the investments. These motives, which are further discussed below, are (i) market seeking (ii) resource-seeking, and (iii) efficiency-seeking.

### 3.3.1    Market-Seeking FDI

Market-seeking FDI is typically undertaken by MNCs to serve a particular market through local production and distribution, as opposed to exporting from the home country or through a third country. This type of foreign investment is believed to be undertaken primarily by foreign firms as part of their offensive or defensive strategies. As part of their defensive strategy, the primary goal of this type of FDI is to explore and develop new markets. It typically occurs when the import procedure in the recipient country is excessively restrictive or when the government of the recipient country imposes or threatens to impose tariffs and non-tariff trade barriers on

imports. On the other hand, their offensive strategy intends to strengthen their existing markets. It occurs when MNCs establish a foreign subsidiary to be closer to their customers to provide superior services (Dunning, 2000).

### 3.3.2 Resource-Seeking FDI

Dunning and Lundan (2008) classify resource-seeking investors into three distinct categories. These are investors seeking natural resources, investors seeking strategic assets, and investors seeking technology. These three resource-seeking investors are described below:

*Natural Resource-Seeking FDI:* This group of investors invests in foreign nations to gain access to resources that are scarce in their home countries or are available at a higher price than in foreign nations. Dunning and Lundan (2008) further classified resource-seeking investors into three distinct categories. The first group of resource-seeking investors consists of those who are searching for natural resources that are scarce in their home countries or are available for a higher price. They may invest in crude oil, gas, gold, silver, diamonds, metals, and other natural resources (Dunning and Lundan 2008).

The second group of resource-seeking investors is compelled to invest in countries with low-cost, semi-skilled, or skilled labour due to a labour shortage in their domestic markets. The third group of investors seeking resources consists of those in search of managerial and organizational skills. This group of investors invests primarily in more developed nations. This group of resource-seeking investors typically facilitates collaborative alliances between nations (Dunning and Lundan 2008).

*Strategic Asset-Seeking FDI:* Strategic asset-seeking is a form of foreign investment undertaken when a company desires access to the local distribution systems, managerial practices, and expertise of another company in its target market to strengthen its competitive position in international markets. This type of FDI frequently takes the form of a merger or acquisition in

which a strategic asset seeker acquires the entire or a portion of the proprietary assets of a foreign firm in its target markets. Strategic asset-seeking FDI focuses primarily on information-intensive industries and is prevalent in highly industrialized nations (Dunning, 2000).

*Technology-Seeking FDI:* The technology-seeking type of foreign investment refers to investments made primarily by MNCs in research and development and design facilities. To maximize their competitive position in international markets, the primary objective of this type of foreign investment is to tap into existing knowledge stocks and expertise and to become more involved in the development of new technology and standard settings (Dunning, 2008).

### 3.3.3    Efficiency-Seeking FDI

This type of FDI occurs when MNCs seek to reduce production and administrative costs. This type of foreign investment is motivated by the need to minimize costs associated with research and implementation of new technologies and to internalize supply chains to increase competitiveness through greater efficiency (Dunning, 2008).

There are two forms of efficiency-seeking FDI. The first is conducted by MNCs to take advantage of the availability and cost of traditional factor endowments, such as the cost of labour and raw materials in various regions of the globe. The second type of investment occurs in countries with comparable income levels and economic structures to the investor nation. The primary objective of this type of FDI is to reap the benefits of economies of scale and scope, differences in consumer preferences, and the supply capabilities of the recipient countries (Dunning, 2008).

### 3.4    Theoretical Literature on FDI

Several FDI theories have attempted to explain why investors prefer to invest abroad rather than limit their business operations to their home markets and what enables them to do so. These theories of FDI are categorized as follows: (i) macro-level theories, (ii) micro-level theories,

and (iii) development theories. The macro-level theories view FDI as a form of capital flow between world economies; they explain the motivations of firms behind FDI as well as its determinants. The micro-level theories of FDI, on the other hand, are developed from the perspective of MNCs. These theories explain why MNCs favour direct investments over other market entry strategies such as franchising and licensing. The third category, known as the developing theories of FDI, combines macro- and micro-level theories to explain FDI (Wojciechowski, 2013; Bajrami, 2019). These FDI theories are as follows.

### 3.4.1 Product Life Cycle Theory

In 1966, Raymond Vernon formulated the product life cycle theory. In four stages, this theory examines the relationship between product life cycles and FDI flows. These are the four phases of the product's life cycle: (i) Introduction, (ii) Growth, (iii) Maturation, and (iv) Decline (Vernon, 1979).

In the initial phase (introduction), a company launches a new product on the domestic market. As the demand for the product is unknown at this stage, the company only produces a limited amount of the product. At present, profits are low, and there are few competitors in the market. Exports of the products to international markets are either non-existent or limited in quantity. As product demand increases, it will automatically enter the subsequent phase of the cycle (Bajrami, 2019).

During the second stage (growth), both domestic and international demand for the product increases. The firm's profits increase as production expenses decrease. At this stage, the company begins to establish production facilities in foreign markets to increase production and meet the rising demand of foreign consumers. During this stage, the product is recognized as a clear winner in both the domestic and international markets, and competition intensifies as rival firms enter the market with cheaper versions of the product (Vernon, 1979).

In the third stage (Maturation), the product market stabilizes and becomes price-sensitive. The profit margin is reduced by the intense competition in the market. In place of the vital role played by research and development in the invention of the product, the labour pay-rate and other production costs become crucial for cost savings. As a result, firms look to establish production facilities in other countries, particularly in low-cost countries, to reduce the product's production cost. At this stage, the production of such products in low-cost countries becomes an import for the country that invented them (Vernon, 1979).

In the fourth and final phase of the product life cycle (decline), the product loses popularity in both the domestic and international markets and is replaced by new, innovative products. At this stage of the product life cycle, the only markets for the product are developing nations (Vernon, 1979).

Tang *et al.* (2012) contend that the product cycle theory is redundant in several ways. Initially, this theory was created to explain the United States' FDI in Europe during the 1960s. However, the United States is no longer the only major investor in international markets; Japanese, European and other investors now contribute significantly to global FDI. Second, this theory does not address the determinants of FDI and other FDI-related issues. Thirdly, the time gap between the three stages of a product, namely introduction, growth, maturity, and decline, has decreased significantly, allowing MNCs to introduce new products simultaneously in domestic and international markets. In addition, the product life-cycle theory has been criticized by Dunning (1993), who argues that this theory is biased because it focuses solely on market-seeking FDI and ignores other types of FDI, such as resource-seeking FDI and efficiency-seeking FDI.

### 3.4.2 Internalization Theory

Buckley and Casson (1976) were the first to propose the internalization theory of FDI, followed by Hennart (1982). According to this theory, when external markets are inefficient in terms of supplies, production, and distribution, or when external transaction costs are excessively high, multinational firms will engage in FDI to conduct their operations through internal markets. This procedure can help MNCs optimize their production efficiency.

This theory identifies information, research, and knowledge as firms' intermediate products; consequently, firms seek to utilize their competitive advantages by internalizing their external imperfect markets in intermediate products and services with their organizational hierarchical corporate structure via internalization (Buckley and Casson, 1976).

Agarwal (1980) identified several advantages that can be gained by firms through internalization, including a reduction in transaction costs, an increase in bargaining power, and an improvement in buyer and seller certainty. Jigme (2006), on the other hand, argues that cost is not the only factor that determines the success of multinational firms. He suggests that multinational firms must also consider cultural, regulatory, and other environmental factors when internalizing their operations.

Dunning (2000) considered the internalization theory to be very important and incorporated it into his eclectic paradigm. However, he also argued that the internalization theory is not exhaustive on its own because it explains only a portion of FDI and does not account for other factors behind FDI.

### 3.4.3 Oligopolistic Reaction Theory

Knickerboker (1973) proposed the oligopolistic reaction theory, which is also known as "follow the leader". According to this theory, in oligopolistic industries, the action of one player affects the other players; for instance, if an oligopolistic firm invests in a foreign market to increase its

market share, its competitor immediately invests in the same market to reduce or block the first-mover advantage. According to Knickerboker (1973), the emergence of MNCs is primarily attributable to the oligopolistic reaction, i.e., the firms' competitors' defensive strategy. Further, he concludes that the competition between firms may ultimately result in a substantial decline in FDI flows.

However, according to Sang-Hyup, (1998), the Knickerbocker theory's predictive value for future FDI inflows is extremely limited, as competition between industries has increased significantly since the theory's inception, but no decrease in FDI flows has yet been observed.

Abbring, Campbell and Yang (2014) contend that the oligopolistic theory is incomplete because it only explains why competitors imitate in oligopolistic industries but fails to explain what motivates the first firm to engage in FDI rather than exporting or licencing. In addition, this theory fails to account for firms that have various types of investments (Agarwal, 1980).

### 3.4.4 Monopolistic Advantage Theory

Hymer (1976) developed the monopolistic advantage theory of FDI. According to this theory, foreignness costs are generally incurred by firms investing outside of their home countries. Hymer (1976) argues that foreignness costs are incurred either due to the lack of knowledge of the investing firms regarding the law, society, and language of the invested countries, which causes them to incur higher information costs, or due to the geographical distance between the parent company and its subsidiary, which causes them to incur higher communication and coordination costs. He argues that, before entering a foreign market, firms must possess monopolistic advantages to overcome these foreign costs.

According to him, a company's monopolistic advantages stem from two sources: "superior knowledge" and "economy of scales". The superior knowledge consists of managerial abilities, patents, trademarks, differentiated products, and cutting-edge technology. In addition

to possessing superior knowledge, a company must also achieve economies of scale through either vertical or horizontal FDI. Through horizontal FDI, firms' increases in production can reduce the unit costs of services such as marketing, financing, and technological research, as each plant outside the home country produces the same product or offers the same types of services as it does in the home country. Through vertical FDI, in which each plant produces the components of the final product for which the local production costs are lower, the company can benefit from the local advantages in production costs while achieving the greatest economies of scale in the production of a single component (Hymer, 1976).

These monopolistic advantages can enable MNCs to operate more profitably and efficiently than domestic corporations in the recipient nation (Hymer, 1976). In addition, MNCs make foreign investments primarily as an aggressive strategy to gain monopoly power in international markets, rather than as a cost-cutting measure (Hymer, 1976).

### 3.4.5   Comparative Advantage Theory

Kojima (1978, 1982) introduced the comparative advantage theory of FDI. This theory asserts that outward FDI should be carried out by firms that produce intermediate products that require resources and capabilities in which the home country has a comparative advantage over the recipient country, but that create value-added activities that require resources and capabilities in which the recipient country has a comparative disadvantage. In contrast, FDI should import intermediate products that require resources and capabilities in which the recipient country is disadvantaged, but whose use requires resources and capabilities in which the recipient country has a comparative advantage (Kojima, 1978, 1982). This theory classifies FDI into two types. Trade-Oriented FDI, which he characterized as Japanese, and Anti-Trade-Oriented FDI, which he characterized as American (Kojima, 1985).

i. Trade-Oriented FDI (*Japanese-type FDI*): According to Kojima, this type of FDI occurs in an industry in which the investing country has a comparative disadvantage, and the receiving country has a comparative advantage. According to him, the Japanese type of FDI focuses more on labour-intensive and resource-based industries in Asian developing nations where they have a comparative advantage over Japan, thereby generating trade between Japan and Asian developing nations. He believes this type of FDI promotes the modernization of industrial infrastructure and increases international trade between nations (Kojima, 1985).

ii. Anti-Trade Oriented FDI *(American-type FDI)*: According to Kojima, anti-trade-oriented FDI is concentrated in capital-intensive and high-technology industries undertaken by large oligopolistic firms and dispersed in monopolistic or oligopolistic industries. Kojima (1985) argues that foreign investments by US MNCs have been made in oligopolistic, capital-intensive, and highly technological industries to protect their oligopolistic positions on international markets and as a response to barriers imposed in developing nations. According to him, American-style foreign investments are not advantageous for developing recipient nations, and in the long run, these investments will obliterate the economic development of developing nations, which may result in trade substitution effects (Kojima, 1985).

However, the theory of Kojima is criticized by numerous academics, such as Either (1986), who disagrees with Kojima's claim and argues that the majority of MNCs operate between countries with relatively similar factor endowments. In addition, Petrohilos (1989) states that the applicability of Kojima theory to future outward FDI by Japanese firms is dubious, as Japanese investors tend to follow the American type of FDI to maximize their profits, and if they do so, this theory will be unable to explain the growing outward FDI of Japanese firms. He adds that the Kojima theory lacks the necessary conditions to be considered a theory. Furthermore, according to Clegg (1987), the theory of Kojima is invalid for most Japanese-style foreign investments due to the theory's limited assumptions.

According to Rugman (2013), Kojima's theory is grounded in the static framework of trade theory, which requires perfect markets and the Heckscher-Ohlin world assumption. In addition, he asserts that it is erroneous to view technology as a static product over time and to disregard the dynamic nature of the technology cycle. By referencing the United States' investments in other nations, Rugman (2013) asserts that the United States not only has comparative advantages in the production of technology but also in the invention of new knowledge. Therefore, the United States can make regular foreign investments in technology while exploiting subsequent phases of the technology cycle.

### 3.4.6 Currency Premium Theory

Aliber (1970) proposed the currency premium theory of FDI. According to this theory, the primary determinants of FDI patterns are capital market relationships, exchange risk, and market preferences for holding assets denominated in specific currencies. According to him, FDI is more likely to occur in nations with different currency exchange rates. He believes that multinational firms from regions with stronger currencies can borrow at a lower rate and reinvest their earnings in regions with weaker currencies at a higher rate than domestic firms. In addition, the structural imperfection of the foreign exchange markets enables MNCs to profit from the foreign exchange markets through the purchase and sale of assets denominated in an undervalued or overvalued currency.

Buckley (2011) argues that this theory better explains the activities of MNCs, but it has only slightly clarified the pattern of FDI between strong and weak currency areas. He claims that this theory fails to explain the continuation of FDI inflows to the recipient country if the currency of the recipient country appreciates relative to the currency of the investing country. In addition, this theory does not account for other FDI-motivating factors.

Dunning (2008) asserts that the currency premium theory provides some intriguing capital arbitrage ideas regarding the timing of FDI, as the difference in currency rates permits MNCs to arbitrage by purchasing assets in an undervalued currency and then selling them in an overvalued currency. Thus, this theory is primarily applicable to describing the merger and acquisition and fluctuation of FDI activities over the long term. In addition, it explains why some nations may change their international investment status in the future.

### 3.4.7 Risk Diversification Theory

The risk diversification theory of FDI was initially proposed by Grubel (1968) and then his idea was revisited by several scholars such as Levy and Sarnet (1970), Lessard (1973), Agmon and Lessard (1977) and finally by Rugman (1979). This theory of FDI is an extension of the portfolio selection theory that was proposed by Tobin (1958) and Markowitz (1959).

According to this theory, risk diversification is one of the most persuasive factors for firms to engage in FDI. In making investment decisions, MNCs not only consider the rate of return on their investments, but also the risk associated with the investments. Since the returns from different markets in which a company invests are unlikely to be correlated, diversifying their investments would reduce their overall risk.

This notion is also supported by several academics, such as Rugman (1975), who argues that MNCs establish their networks outside of their home countries to profit from product and factor market diversification and to reduce profit variance. He adds that firms that operate in a variety of international markets increase their profits with less risk than companies of the same size that operate only in their domestic market. In addition, Lessard (1976) supports this theory by stating that risk diversification is a more important motivation for foreign investment by MNCs than maximizing investment returns for the safety of their shareholders.

45

Several empirical studies conducted by a variety of scholars, such as Hughes, Logue and Sweeney (1975), Miller and Pras (1980), and Thompson (1985), strongly support this theory. The purpose of these empirical studies was to confirm whether the return variability of firms that operate in diversified markets is less, equal to, or greater than that of firms of the same size that operate only in their domestic market. These empirical studies validated the risk diversification theory, and the researchers concluded, based on their findings, that firms that operate in diversified markets have higher average returns than firms of the same size that operate only in their domestic markets, as well as lower systematic and unsystematic risks than firms that operate in a single market.

### 3.4.8   Uppsala Internationalization Model

Johnson and Weidersheim (1975) and Johanson and Vahlne (1990) are credited with developing the Uppsala internationalization model. This model was developed at the University of Uppsala through empirical observation of the internationalization process of Swedish firms. This model posits that the internationalization process of businesses occurs in stages. In the initial phase, their strategy is to invest in psychically adjacent countries where they have superior market knowledge and can enter the market with minimal costs. As the company gains access to better resources and gains experience, they gradually expand their investments to more distant countries.

Johanson and Vahlne (1990) define psychic distance, a concept used in the Uppsala internationalization model, as the cost of internalizing and acquiring relevant information about the business environment in other countries, such as the risk involved in the investment and the resources required to invest in foreign markets. This model also states that the 'Psychic distance' cost decreases as a company's operations expand to more distant countries and the company gains more knowledge and experience in those markets (Johanson and Vahlne, 2017).

Nonetheless, the Uppsala internationalization model was severely criticized by several academics. According to Nordstrom (1990), the world has become increasingly homogeneous and the 'Psychic distance' between nations has diminished significantly. Due to technological advancement, firms can now enter larger foreign markets directly; consequently, the explanatory value of the 'Psychic distance' of the Uppsala internationalization model is no longer convincing.

According to Lundan and Jones (2001), this model is only applicable to firms with some knowledge of internalization and does not apply to smaller firms from emerging economies with little or no internationalization experience. Also, according to Dunning and Lundan (2008), the Uppsala model is more deterministic and rigid because MNCs consider a variety of approaches when internalizing business operations.

In addition, according to Cuervo Cazurra (2012), the Uppsala model disregards the potential benefits of internalization and focuses more on the risks associated with firms internalizing their operations. Moreover, he asserts that this model must be expanded to include a variety of factors, including the firm's characteristics and market attractiveness.

### 3.4.9 Dunning's Eclectic Paradigm

Professor John H. Dunning, a British economist, proposed the Dunning eclectic paradigm, also known as the O-L-I framework of FDI (Dunning, 2001). This paradigm provides an exhaustive explanation of a company's propensity to engage in foreign investments. According to this paradigm, three primary types of benefits influence a company's decision to engage in foreign investment. These three types of advantages are (O) Ownership-Specific Advantages, (L) Location-Difference Advantages, and (I) Internalization Advantages, and they are discussed in greater detail below.

i.  *Ownership-Specific Advantages*

The ownership-specific advantages refer to the multinational firms' monopolistic advantages or capabilities that can be transferred to a foreign market. The ownership-specific benefits are subdivided into three groups. The first group of ownership advantages includes several assets that generate income. These assets may include trademarks, patents, superior technology, increased financial capital, marketing expertise, managerial efficiency, highly qualified human capital, and economies of scale and scope.

The second set of firm-specific advantages comprises the advantages that an established firm may have over a new firm operating in an international environment. This can include the firm's size, its monopoly power, and its superior resource capacity. Multinational is the source of the third set of the firms' specific advantages. Multinational refers to the knowledge of international markets that enables companies to profit from geographical differences in factor endowments or markets. Possessing this set of benefits enables MNCs to gain access to low-cost labour and other production inputs in various geographical locations, as well as eliminate any political or exchange risk associated with their investments (Dunning, 2001).

These monopolistic advantages of MNCs can result in lower marginal costs and greater marginal profitability, allowing them to outcompete their domestic competitors in the recipient country. Dunning (2000) cites several theories that have explained ownership-specific benefits, including the industrial organization theories of Hymer, 1960, the product life-cycle theory of Vernon (1966), and the internalization theory of Buckley and Casson (1976).

ii.  *Location Advantages*

The location advantages, also known as country-specific advantages, can take various forms, including lower labour and other production input costs, the availability of natural resources, improved infrastructure, more favourable FDI policies of the country, and a stable political and

financial environment. When MNCs identify such competitive advantages in a country, they invest to capitalize on those advantages (Dunning, 2001).

iii.     *Internalization Advantages*

The third characteristic of the Dunning OLI paradigm explains that, because the cross-border market internalization benefit is greater, firms prefer to exploit a foreign opportunity on their own rather than granting this right to external third parties via contractual agreements or franchises, such as licensing, managerial contracting, or joint venture. Dunning (2001) identified several benefits that can be attained through internalization by foreign firms, such as having control over economies of interdependent activities, avoiding search and negotiation costs, evading any government restrictions (e.g., quotas, tariffs, and price control), protecting marketing and technical know-how, having control over their supplies and market outlets, and providing the firm with the ability to engage in practices that are competitive with domestic firms.

However, the eclectic paradigm, like other theories of FDI, is believed to have many gaps and inconsistencies because, according to Li (2003), the eclectic paradigm is a static approach that presents a snapshot in time and fails to account for the ever-changing international business environment. Letto-Gillies (1992) considers the eclectic paradigm to be a taxonomy rather than a theory of FDI because it consists of a collection of theories and a large number of variables that explain FDI. Dunning (2000) confirms these shortcomings, and argues that the eclectic paradigm should be viewed more as a systematic framework or paradigm for investigating the determinants of international production than as an analytical theory of MNCs. In addition, Itaki (1991) states that the ownership advantage in the eclectic paradigm is not clearly defined and that this paradigm is more focused on the engineering advantage of a firm, which is not necessarily reflected in the firm's more significant economic advantage.

### 3.4.10  Linkage, Leverage, and Learning (LLL) Model

Mathew (2006) created a complementary model to the OLI framework, titled the Linkage, Leverage, and Learning (LLL) model of MNCs. Mathew (2006) criticized the OLI paradigm, arguing that this paradigm uses a push-oriented concept from western MNCs, in which internationalization is primarily driven by strategic objectives, rather than a pull-and-push method, which appears to be the reality for the majority of Asian-Pacific MNCs. Mathew (2006) asserts that MNCs from emerging markets initially lack the knowledge and assets necessary to internationalize their operations, but have a greater organizational learning capacity. The first "L" (linkage) of the LLL model is the ability of multinationals to link with other firms on international markets to obtain resources. The second "L" of the model represents leverage, which refers to leveraging such links to overcome resource barriers, and the third "L" (learning), through linking and leverage, MNCs can develop their competencies (Mathews, 2017).

### 3.4.11  Investment Development Path

The investment development path framework, also known as the five stages theory of FDI, was developed in a series of publications by Dunning (1981) and (1993), Dunning and Narula (1996), and Dunning (2001). This five-stage framework describes the dynamic relationship between inward and outward foreign investments and a country's level of development.

The first stage of the investment development path framework refers to a least-developed country that cannot attract FDI due to its poor infrastructure, low-skilled labour force, inappropriate institutions, and poor FDI policies of the government, as well as low demand for high-quality goods due to its low per capita income. At this stage, the country's only geographical advantage is its natural resources and/or inexpensive labour force. Then, MNCs prefer to conduct business in the country through exports and imports rather than by investing (Dunning, 2001).

At the second stage of the investment development path, the recipient country's inward FDI begins to increase due to its locational advantages. The locational advantages of the recipient country may stem from its natural resources, lower labour and other production input costs, or the flexibility of its FDI policies. At this stage, the outward FDI of the country is either non-existent or at a very low level, as the domestic firms of the recipient country lack the ownership-specific advantages that allow them to invest abroad (Dunning, 2001).

In the third stage, when domestic firms become more efficient and competitive with foreign firms and possess some sort of ownership-specific advantages, the country's outward FDI begins to increase. At this point in the path of investment development, it is believed that investments are driven primarily by the skilled labour and innovative capacity of the country, as opposed to cheaper labour and natural resources. During this phase, the majority of investments in the recipient country are made by foreign firms as greenfield investments and/or cross-border mergers and acquisitions.

As the nation advances along the investment development path and enters the fourth stage of the investment development path, competition between domestic and foreign firms intensifies. During this phase, the country's labour pay rate and other production input costs increase, and as a result, domestic firms begin establishing business operations in low-cost countries to reduce expenses. Thus, the recipient nation's outward FDI begins to increase.

At the fifth and final stage of the investment development path framework, the level of FDI inflows and outflows is nearly balanced. During this phase, most investments are made in the form of strategic asset-seeking and efficiency-seeking, and as a result, investors look to invest in more developed nations. At this stage, the governments of the recipient nations continue to play an active role in maintaining a well-organized market. This stage of the framework for the path of investment development comprises more industrialized nations, such as the United States and the United Kingdom (Dunning, 2001).

51

### 3.4.12 Unconventional and Imbalance Theory

Moon and Roehl (2001) proposed the unorthodox and imbalanced theory of FDI. Existing theories on FDI, according to this theory, only address downward FDI, where the investing firm is from the more developed country and the invested country is from the less developed country. The primary objective of these theories is to identify a specific type of ownership advantage that gives a company a competitive edge when producing in a foreign country.

Moon and Roehl (2001) argued that these theories fail to explain the wide variety of FDI activities observed in recent years, including upward FDI, in which investments from less developed or moderately developed nations are made in more developed nations. This type of investment was described as unconventional FDI and strategic investment. They believe that multinational firms make strategic investments to weaken the position of their competitors in international markets and/or to build new assets to bolster their resources for potential competition, and not because of their advantages (Moon and Roehl, 2001).

In some instances, firms from less developed nations have invested in more developed nations to overcome their deficiencies, such as a lack of advanced technology, management expertise, or the establishment of their networks, rather than exploit their advantage. When Korean firms first invested in Silicon Valley, they lacked significant ownership advantages in comparison to other foreign firms from more developed nations. Thus, the role of ownership disadvantage is as significant as that of ownership advantage in explaining the motives of MNCs' foreign investments (Moon and Roehl, 2001).

### 3.4.13 Springboard Perspective Theory of FDI

Luo and Tung (2007) proposed the springboard perspective theory of FDI. This theory describes MNCs' internationalization from the perspective of emerging markets. It posits that MNCs in emerging markets use international expansion as a springboard to obtain strategic

resources in international markets and to minimize institutional and market restrictions in domestic markets. This theory describes seven reasons for internationalization of MNCs headquartered in emerging markets:

i. To get access to advanced technology and expertise in advanced markets to complement their strength.

ii. To expand their business operations and/or to gain a reputation in the international markets.

iii. To bypass strict trade barriers such as quota restrictions, special tariff penalties and antidumping penalties.

iv. To seize opportunities in other developing markets to leverage their cost-effective manufacturing capabilities.

v. To get away from the irregularities that exist in their home countries such as poor law enforcement, inefficient markets, and political instability.

vi. To gain advantages from the high-income countries.

vii. To gain financial and non-financial treatment by their home or recipient countries' governments.

# CHAPTER FOUR

## DATA, VARIABLES, AND EMPIRICAL MODEL

### 4.1    Empirical Model and Variables

The empirical analysis examines the determinants of FDI inflows, and it estimates the corresponding coefficients for the ECOWAS region. In other words, it estimates ECOWAS-specific coefficients and, hence, it investigates whether the FDI determinants have different effects on FDI inflows to the ECOWAS region, focusing on economic growth and development and trade openness. This analysis is in the spirit of Asiedu (2002) that analyzed whether factors that affect FDI in developing countries impact countries in SSA (SSA) differently. There are host-country factors that encourage and others that discourage FDI inflows. This study specifies a multiple regression model where FDI inflows are function of economic growth, trade openness, economic development, infrastructure, and inflation rate. The benchmark empirical equation can be generally presented as:

$$(4.1) \quad lnFDI_{it} = \beta_0 + \beta_1 GDPGR_{it} + \beta_2 lnTROP_{it} + \beta_3 lnRGDPC_{it} + \beta_4 INFRAS_{it} + \beta_5 INFL_{it} + \omega_i + \theta_t + \mu_{it}$$

Where $FDI_{it}$ represents the log of inflows of FDI to country "$i$" at time "$t$"; $GDPGR_{it}$ is economic growth as depicted by annual GDP growth rate; $TROP_{it}$ is trade openness that is illustrated though the ratio of trade (imports+exports) to GDP; $lnRGDPC_{it}$ is the log of real GDP per capita; $INFRAS_{it}$ depicts infrastructure and it is illustrated by the log of number mobile phone subscriptions per 1,000 population; $INFL_{it}$ is inflation rate; $\omega_i$ is the country-specific effect; $\theta_t$ is time-specific effect; and $\mu_{it}$ is the stochastic term.

We present next the *a priori* expectations, which refer to the expected effects of the regressors on FDI inflows. It is expected that increases in economic growth, trade openness, economic development, and infrastructure improvement will encourage FDI inflows to the host

countries, while higher inflation rates tend to decrease FDI inflows. Therefore, $GDPGR_{it}$, $TROP_{it}$, $RGDPC_{it}$ (if economic development effect outweighs the implications of returns to capital), and $INFRAS_{it}$ are expected to positively impact FDI inflows while $INFL_{it}$ is expected to negatively impact FDI inflows. This can be mathematically expressed as: $\beta_1, \beta_2, \beta_3, \beta_4 > 0$; and $\beta_5 < 0$. This is explained further in the following Table 4.1:

**Table 4.1. A priori expectations**

| Variable | Parameter | Expected Sign |
|:---:|:---:|:---:|
| $GDPGR_{it}$ = Economic Growth Rate | $\beta_1$ | Positive (+) |
| $TROP_{it}$ = Trade openness | $\beta_2$ | Positive (+) |
| $RGDPC_{it}$ = Real GDP per Capita | $\beta_3$ | Positive (+)[a] |
| $INFRAS_{it}$ = Infrastructure (Mobile Subscriptions) | $\beta_4$ | Positive (+) |
| $INFL_{it}$ = Inflation rate | $\beta_5$ | Negative (-) |

[a] if economic development effect outweighs the implications of returns to capital

The empirical analysis is particularly interesting in determining the ECOWAS-specific effects on FDI inflows to the ECOWAS region, focusing on the effects of economic growth and development and trade openness. We introduce a dummy variable $ECOWAS_{it}$ that equals when country "$i$" is member of ECOWAS at time "$t$", and that equals zero otherwise. The augmented empirical models are given as:

(4.2) $\quad lnFDI_{it} = \beta_0 + \beta_1 GDPGR_{it} + \gamma_1 GDPGR_{it} \times ECOWAS_i + \beta_2 lnTROP_{it} +$

$\beta_3 lnRGDPC_{it} + \beta_4 INFRAS_{it} + \beta_5 INFL_{it} + \omega_i + \theta_t + \mu_{it}$

(4.3) $\quad lnFDI_{it} = \beta_0 + \beta_1 GDPGR_{it} + \gamma_1 GDPGR_{it} \times ECOWAS_i + \beta_2 lnTROP_{it} +$

$\gamma_2 lnTROP_{it} \times ECOWAS_i + \beta_3 lnRGDPC_{it} + \beta_4 INFRAS_{it} + \beta_5 INFL_{it} + \omega_i + \theta_t +$

$\mu_{it}$

(4.4) $lnFDI_{it} = \beta_0 + \beta_1 GDPGR_{it} + \gamma_1 GDPGR_{it} \times ECOWAS_i + \beta_2 lnTROP_{it} + \gamma_2 lnTROP_{it} \times ECOWAS_i + \beta_3 lnRGDPC_{it} + \gamma_3 lnRGDPC_{it} \times ECOWAS_i + \beta_4 INFRAS_{it} + \beta_5 INFL_{it} + \omega_i + \theta_t + \mu_{it}$

(4.5) $lnFDI_{it} = \beta_0 + \beta_1 GDPGR_{it} + \gamma_1 GDPGR_{it} \times ECOWAS_i + \beta_2 lnTROP_{it} + \gamma_2 lnTROP_{it} \times ECOWAS_i + \beta_3 lnRGDPC_{it} + \gamma_3 lnRGDPC_{it} \times ECOWAS_i + \beta_4 INFRAS_{it} + \gamma_4 INFRAS_{it} \times ECOWAS_i + \beta_5 INFL_{it} + \omega_i + \theta_t + \mu_{it}$

(4.6) $lnFDI_{it} = \beta_0 + \beta_1 GDPGR_{it} + \gamma_1 GDPGR_{it} \times ECOWAS_i + \beta_2 lnTROP_{it} + \gamma_2 lnTROP_{it} \times ECOWAS_i + \beta_3 lnRGDPC_{it} + \gamma_3 lnRGDPC_{it} \times ECOWAS_i + \beta_4 INFRAS_{it} + \gamma_4 INFRAS_{it} \times ECOWAS_i + \beta_5 INFL_{it} + \gamma_5 INFL_{it} \times ECOWAS_i + \omega_i + \theta_t + \mu_{it}$

The estimations are implemented using pooled panel regressions, fixed effect models, and random effects models. The choice between the random effect model and the fixed effect model will be determined using the Hausman Test. The Hausman test is a statistical hypothesis test jointly developed by Durbin, Wu, and Hausman, which can be used to differentiate between the fixed effect model and the random effect model in panel data. The basis of the test is that under the null hypothesis the random effect model is preferable due to higher efficiency. However, under the alternate hypothesis, the fixed effect model is consistent and thus preferable. That is, given a significant level of 5%, if the probability value of the Hausman test is less than 5% the study will estimate a random effect model (Maddala, 2001). Otherwise, the fixed effect model will be estimated.

## 4.2    Data

In other to examine the determinants of FDI inflows in ECOWAS secondary data sourced from the database of the World Bank Development Indicators (WDI) were used. The data covers

periods from 2000 to 2020. Data from ECOWAS countries were collated. The countries were selected based on data available on the variables of interest in this study. The countries selected are: Benin, Burkina Faso, Cabo Verde, Cote d'Ivoire, The Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, and Togo. The following Table 4.2 provides a synopsis of the data source and measurement of the variables.

**Table 4.2. Data Source and Measurement**

| Variables | Description | Measurement | Source |
|---|---|---|---|
| $FDI_{it}$ | Foreign Direct Investment | This is measured as the net inflow of foreign direct investment in a country. | WDI (2022) |
| $GDPGR_{it}$ | GDP Growth Rate | This is measured as GDP growth rate | WDI (2022) |
| $RGDPC_{it}$ | Real GDP per Capita | This is measured as real gross domestic product divided by the total population. | WDI (2022) |
| $TROP_{it}$ | Trade Openness | This is measured as a ratio of trade (imports+exports) to GDP. | WDI (2022) |
| $INFRAS_{it}$ | Infrastructure | This is proxied using number of mobile subscriptions per 1,000 populations. | WDI (2022) |
| $INFL_{it}$ | Inflation rate | This is measured using the consumer price index. | WDI (2022) |

**4.3. FDI Inflows in ECOWAS Countries**

Figures 3.1-3.15, show that there are significant variations in FDI inflow levels and patterns across ECOWAS countries, which likely reflect their varying economic and geo-economic features (e.g., economic size, economic development, resource endowments) and conditions over time.

Figure 3.1 shows that while FDI inflows to Benin fluctuated from 2001 to 2009, it experienced a rapid rise from US$-18.81 million in 2009 to US$405.74 million in 2014. However, FDI inflows to Benin have generally experienced a decline, thereafter, amounting to US$174.02 million in 2020. Figure 3.2 shows that FDI inflows to Burkina Faso have significantly increased starting from 2010, reaching US$500 million in 2013 after which there was a period of fluctuations and decline. Also, Figure 3.3 shows a rise in FDI inflows of Cabo Verde from 2001 to 2008 when it reached US$210 Million after which there were periods of fluctuations and decline. FDI inflows to Cab Verde amounted to US$74 million in 2020. Figure 3.4 depicts a moderate cyclical movement in the trend of FDI inflows to Cote D'Ivoire from 2001 to 2017. FDI inflows to Cote D'Ivoire were US$712 million in 2020. Figure 3.5 shows FDI inflows to the Gambia from 2001 to 2020, with a peak in 2020 at US$190 million. Figure 3.6 shows that FDI inflows to Ghana rose from US$89.32 million in 2001 to US$2,715 million in 2008. FDI inflows rose again from US$2,372 million in 2009 to US$3,485 million in 2016. There were some decreases in 2017 and 2018, followed by increases to US$3,880 million in 2019 then decreases to US$1,900 million in 2020.

Figure 3.7 shows that FDI inflows to Guinea show some moderate increases from 2001 to 2007. FDI inflows to Guinea peaked at US$1,600 million. Figure 3.8 shows a general rise in FDI inflows to Guinea-Bissau from 2001 to 2018. FDI inflows to Guinea-Bissau peaked at US$70 Million in 2019 before a decline to US$20 million in 2020. Figure 3.9 shows that FDI inflows to Liberia were relatively low from 2001 to 2009, before rising sharply in 2010. Between 2010 and 2013 FDI inflows to Liberia remained high at between US$2,000 million and US$2,300 million, followed by a decline in 2014 to US$250 million. FDI inflows to Liberia were US$86 million in 2020. Figure 3.10 shows a general rise in FDI inflows to Mali from 2001 to 2020. The peak of FDI inflow to Mali was in 2019 at US$860 million. FDI inflows to Mali were US$536 million in 2020. Figure 3.11 depicts FDI inflows to Niger that rose from

2001 to 2011 when they peaked at US$1,067 million after which there were decreasing trends followed by rises from 2017 to 2019. FDI inflows were US$360 million in 2020.

Figure 3.12 shows FDI inflows to Nigeria rising from 2001 to 2009 when it was US$8,555 million before a decrease to US$6,000 million in 2010. Following a rise to US$8,800 million in 2012, FDI inflows to Nigeria fell from 2013 onward to reach US$1,000 million in 2018, before a moderate rise in 2019 to US$2000 million. In 2020, FDI inflows to Nigeria were at US$2,000 Million. Figure 3.13 shows that FDI inflows to Senegal were generally rising all through from 2001 to 2020. FDI inflow to Senegal was US$45 Million in 2001, and it reached US$1450 million in 2020. Thus, Senegal has witnessed favourable consistency in FDI inflows' trend relative to other ECOWAS countries although the levels of FDI inflows to Senegal are quite low which may be related to some factors such as the size of the Senegalese economy, and relatively lower levels of natural resources compared to other ECOWAS countries. Figure 3.14 depicts FDI inflows to Sierra Leone that rose from 2001 to 2011 when it peaked at US$950 million. However, from 2012 onward, FDI inflows to Sierra Leone generally decreased, and they amounted to US$135 million in 2020. Figure 3.15 depicts a general improvement in the flow of FDI to Togo from 2001 to 2011. FDI inflow peaked at US$728 million in 2011. However, a downward spiral in the FDI inflows to Togo can be observed post-2011.
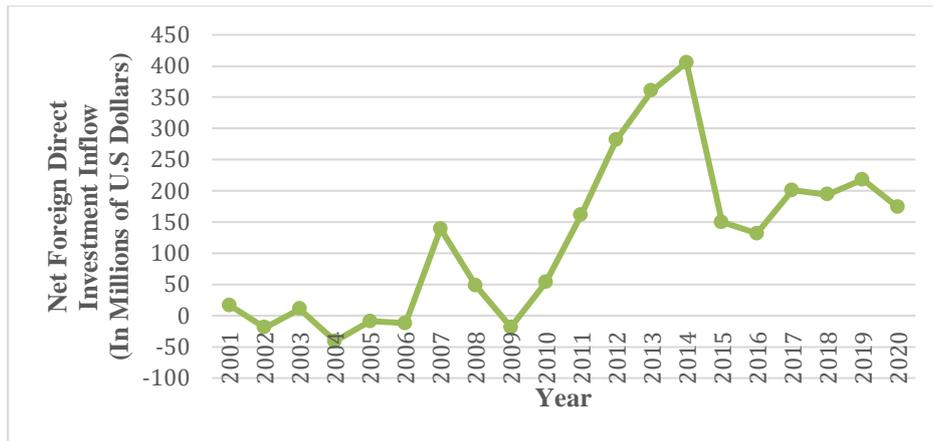
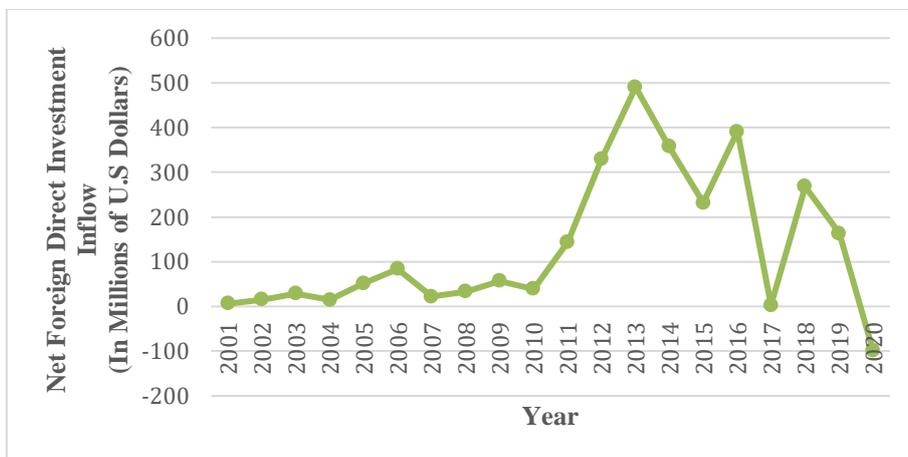**Figure 3.1. FDI Inflows to Benin (2001-2020)**



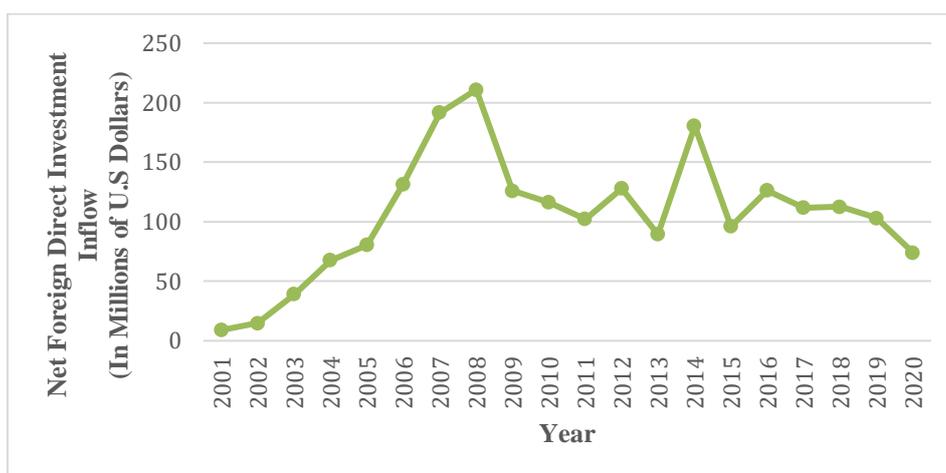**Figure 3.2. FDI Inflows to Burkina Faso (2001-2020)**



**Figure 3.3. FDI Inflows to Cabo-Verde (2001-2020)**
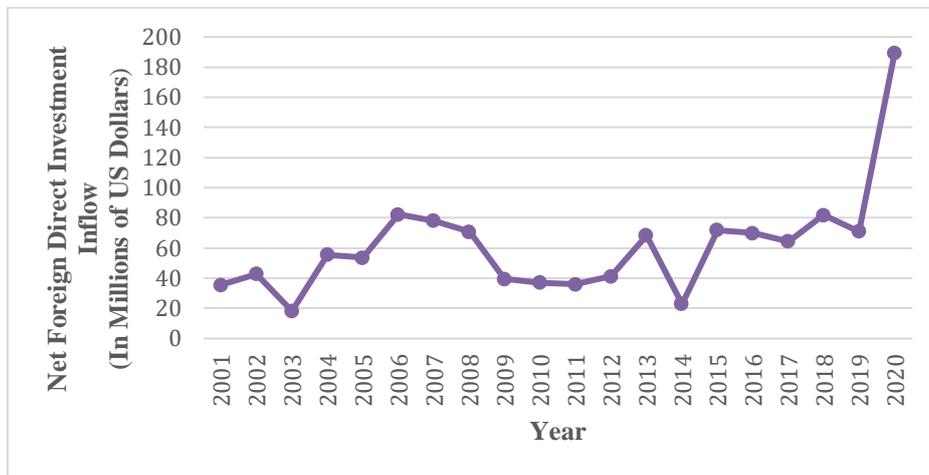
**Figure 3.4. FDI Inflows to Cote D'Ivoire (2001-2020)**



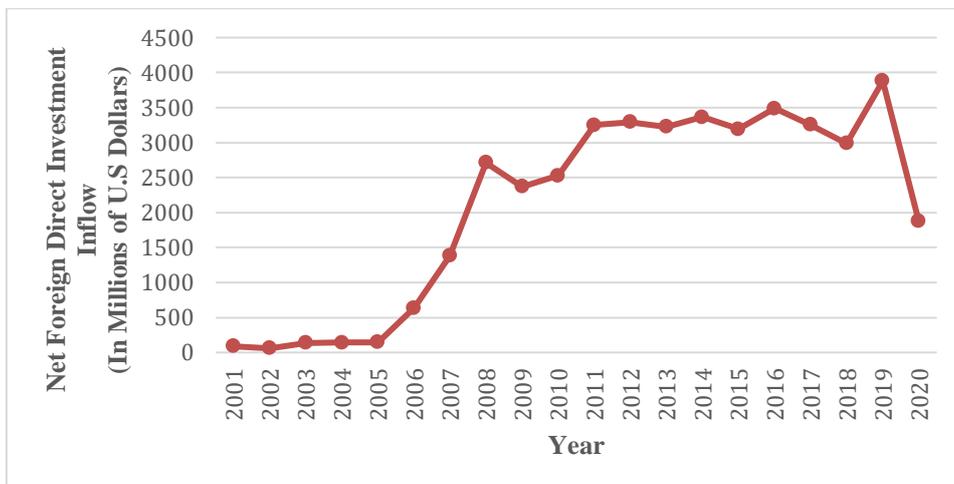**Figure 3.5. FDI Inflows to Gambia (2001-2020)**



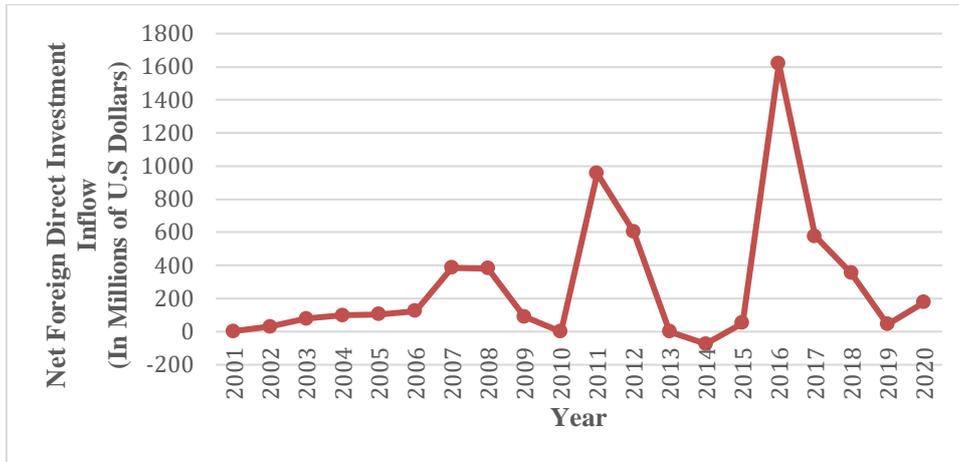**Figure 3.6 FDI Inflows to Ghana (2001-2020)**

**Figure 3.7. FDI Inflows to Guinea (2001-2020)**
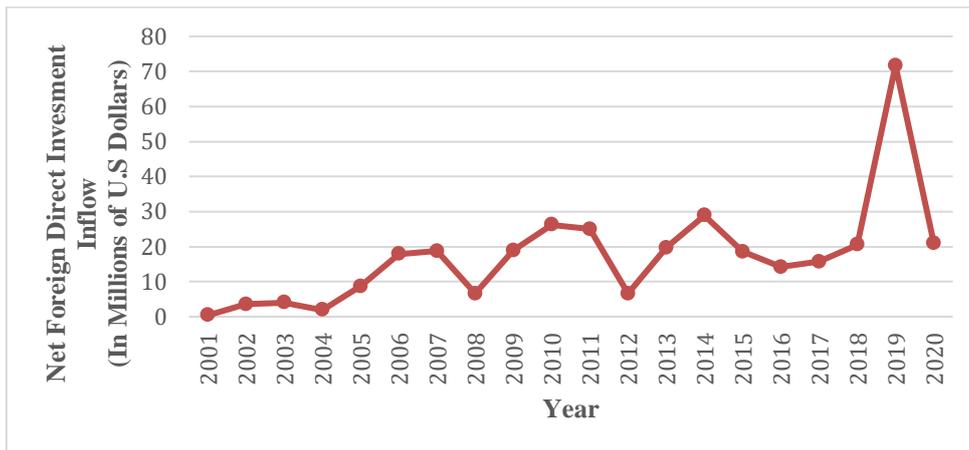


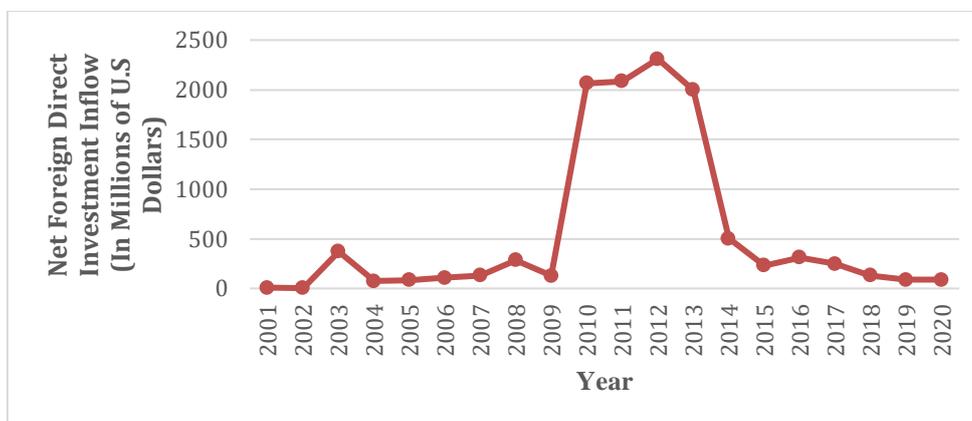**Figure 3.8. FDI Inflows to Guinea-Bissau (2001-2020)**



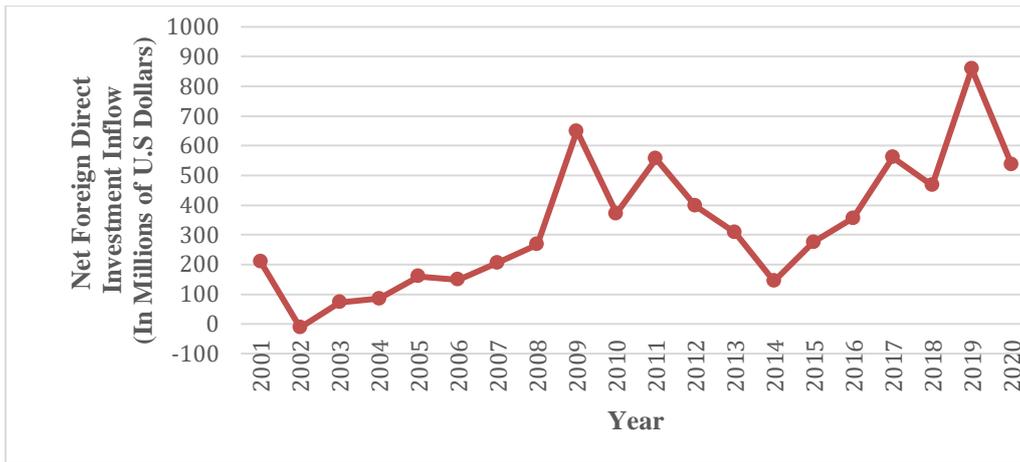**Figure 3.9. FDI Inflows to Liberia (2001-2020)**

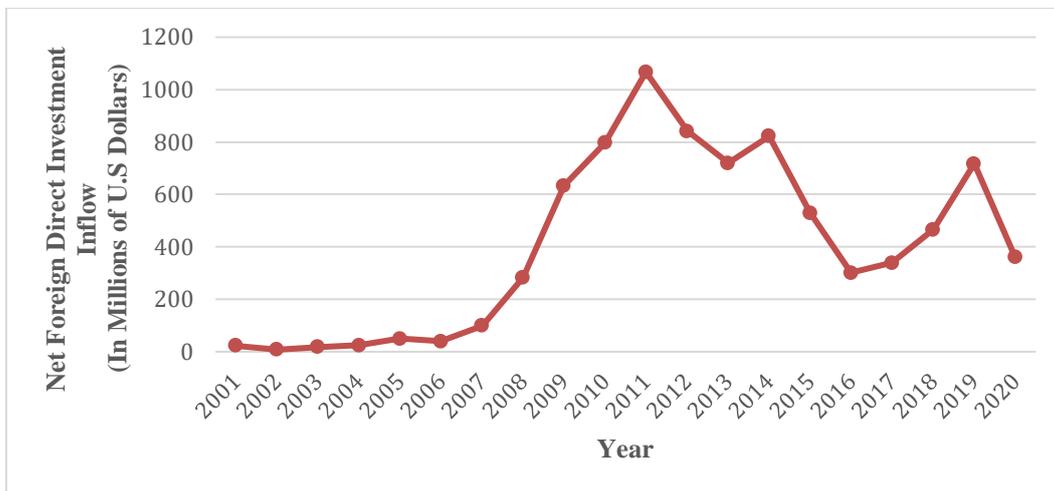**Figure 3.10. FDI Inflows to Mali (2001-2020)**



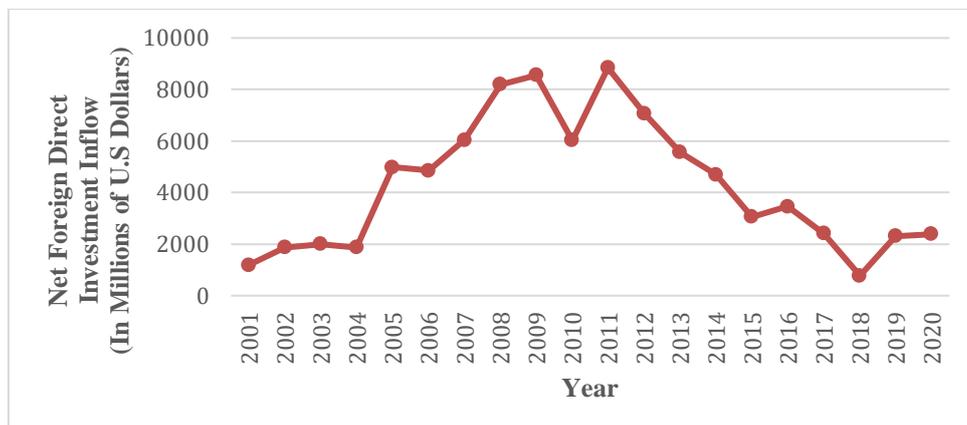**Figure 3.11. FDI Inflows to Niger (2001-2020)**

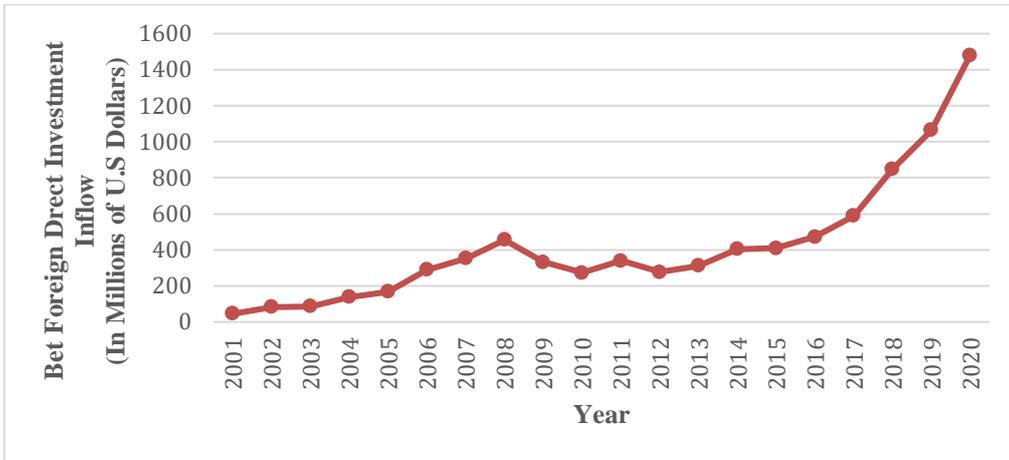**Figure 3.12. FDI Inflows to Nigeria (2001-2020)**



**Figure 3.13. FDI Inflows to Senegal (2001-2020)**
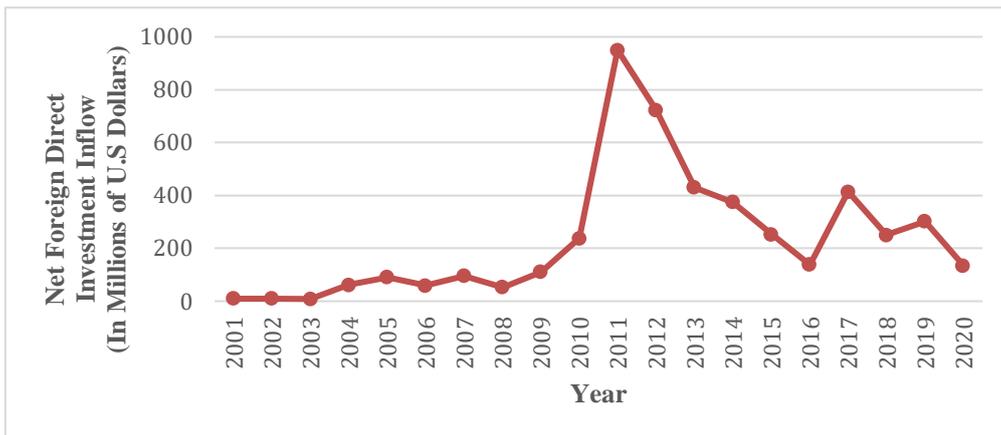


**Figure 3.14. FDI Inflows to Sierra Leone (2001-2020)**
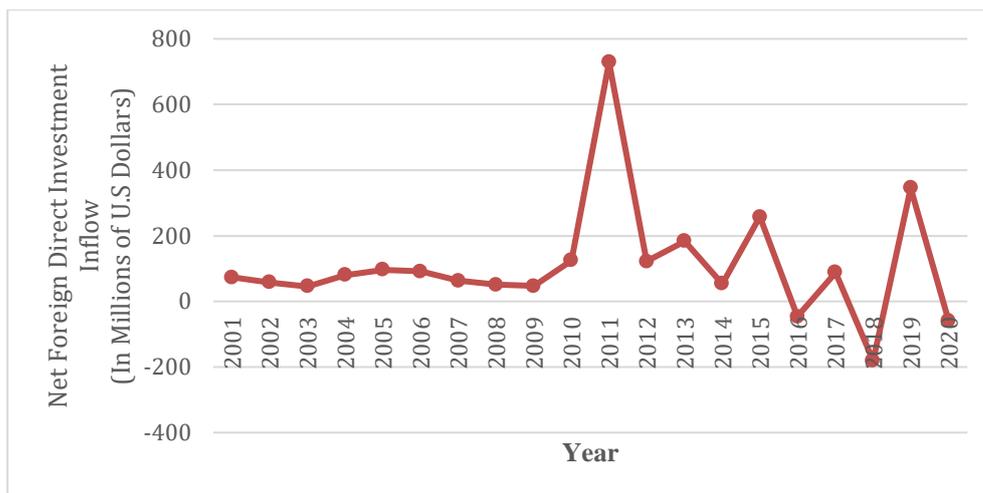
**Figure 3.15 FDI Inflows to Togo (2001-2020)**

Table 3.1 displays average FDI inflows to individual ECOWAS countries over four time-period intervals: [2001-2005], [2006-2010], [2011-2015], and [2016-201]. These statistics show significant heterogeneities across ECOWAS countries and over time. The highest FDI inflows are observed in the cases of Nigeria and Ghana, while the low FDI inflows are found in the cases of Benin, Gambia, Guinea Bissau, and Togo. There are general increases over the first three intervals, while there are some decreases and some increases in the last intervals across ECOWAS countries. Also, Table 3.2 presents average FDI inflows as a percentage of GDP for individual ECOWAS countries over these time intervals. The highest percentages are observed in the cases of Cabo Verde, Gambia, Ghana, and Liberia, while lower percentages are generally observed in the cases of Benin, Burkina Faso, Cote D'Ivoire, Guinea Bissau, and Togo.

**Table 4.3.  FDI Inflows across individual ECOWAS countries (million, constant US$)**

|  | FDI Inflows (million, constant US$) | | | |
|  | [2001-2005] | [2006 -2010] | [2011-2015] | [2016-2018] |
|---|---|---|---|---|
| Benin | -8.32 | 41.95 | 271.74 | 175.59 |
| Burkina Faso | 23.38 | 46.86 | 310.55 | 220.54 |
| Cabo Verde | 42.23 | 155.28 | 119.24 | 116.91 |
| Cote d'Ivoire | 256.54 | 403.85 | 394.72 | 724.41 |
| Gambia | 41.15 | 61.54 | 48.12 | 71.99 |
| Ghana | 113.85 | 1926.80 | 3264.96 | 3243.12 |

| | | | | |
|---|---|---|---|---|
| Guinea | 62.71 | 196.76 | 308.26 | 849.60 |
| Guinea-Bissau | 3.71 | 17.68 | 19.74 | 16.83 |
| Liberia | 108.29 | 543.10 | 1425.84 | 229.56 |
| Mali | 102.88 | 328.66 | 336.48 | 461.51 |
| Niger | 24.62 | 370.58 | 796.04 | 368.70 |
| Nigeria | 2385.33 | 6733.34 | 5846.37 | 2213.83 |
| Senegal | 103.96 | 340.12 | 347.69 | 636.18 |
| Sierra Leone | 36.15 | 111.25 | 546.02 | 267.56 |
| Togo | 70.43 | 75.21 | 269.14 | -46.24 |

**Table 4.4. FDI Inflows across individual ECOWAS countries (% of GDP)**

| | FDI Inflows (% of GDP) | | | |
|---|---|---|---|---|
| | [2001-2005] | [2006 -2010] | [2011-2015] | [2016-2018] |
| Benin | -0.12 | 0.48 | 2.26 | 1.16 |
| Burkina Faso | 0.47 | 0.58 | 2.4 | 1.58 |
| Cabo Verde | 4.88 | 10.13 | 6.68 | 6.55 |
| Cote d'Ivoire | 1.25 | 1.3 | 1 | 1.39 |
| Gambia | 5.46 | 4.71 | 3.51 | 4.63 |
| Ghana | 1.47 | 7.02 | 6.8 | 5.35 |
| Guinea | 1.93 | 3.48 | 4.36 | 9.13 |
| Guinea-Bissau | 0.73 | 2.37 | 1.87 | 1.25 |
| Liberia | 13.62 | 29.24 | 51.08 | 6.75 |
| Mali | 2.27 | 3.44 | 2.58 | 2.97 |
| Niger | 0.71 | 5.04 | 8.23 | 3.19 |
| Nigeria | 1.94 | 2.25 | 1.26 | 0.56 |
| Senegal | 1.15 | 2.29 | 1.89 | 2.98 |
| Sierra Leone | 2.41 | 4.68 | 14.7 | 7.01 |
| Togo | 3.64 | 2.56 | 6.71 | -0.64 |

# CHAPTER FIVE

# EMPIRICAL RESULTS

## 5.1    Empirical Results from Basic Dataset - ECOWAS Countries

The empirical analysis examines the determinants of FDI inflows to the ECOWAS region. The empirical regressions are implemented first for a sub-dataset that exclusively covers ECOWAS member countries (Benin, Burkina Faso, Cabo Verde, Cote d'Ivoire, The Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, and Togo.). Table 5.1 presents the results from estimating equation (4.1) using pooled Ordinary Least Squares (OLS) estimator. Table 5.2 and Table 5.3 presents the results from the Random Effect (RE) estimation model and Fixed Effect (FE) estimation model, respectively, for empirical specifications that also include year-specific effects to capture time-specific shocks.

The results in Table 5.1 (pooled OLS) show R-Squared of 0.1709, and F-Statistic of the model that is statistically significant at the 1% level. It also shows that the constant takes the value of -1.679, but it is statistically insignificant. The estimated coefficient on economic growth rate (GDPGR) is positive but not statistically significant at the 10% level. The estimated coefficients on the remaining regressors that are included in the empirical equation [log of trade openness (lnTROP), log of real GDP per Capita (lnRGDPC), Infrastructure that is proxied by the log of number of mobile phone subscriptions (INFRAS), and inflation rate (INFL)] are statistically significant at the conventional levels. The estimated coefficient on the trade openness variable (lnTROP) is also positive and statistically significant at the 1% level, taking the value of 1.029. It shows that a 1% increase in the extent of trade openness would result in 1.029% increase in FDI inflows to ECOWAS countries, ceteris paribus. These two results suggest that ECOWAS countries would significantly benefit in terms of FDI inflows through trade openness policies.

The estimated coefficient on the real GDP per capita variable (lnRGDPC) is found to be negative and statistically significant at the 1% level, taking the value of -0.260. This variable naturally proxies for national economic development level, where a positive relationship is expected. However, it also captures the inverse of return to capital (return to capita is expected to be high in ECOWAS countries given the lower levels of capital in these countries). Thus, this variable could also serve as a proxy for returns to capital, and it could also hold a negative relationship to FDI inflows (Asiedu, 2002). The estimated coefficient on the RGDPC variable (which is negative) presents the net effects of these factors. It indicates that a 1% increase in GDPC is associated with 0.260% decrease in FDI inflows to ECOWAS countries, ceteris paribus.

The estimated coefficient on the infrastructure variable (INFRAS), which is proxied by the log of number of mobile phone subscriptions, is positive and statistically significant at the 1% level, taking the value of 0.108. It indicates that a 1% increase in the number of mobile phone subscriptions is accompanied by 0.108% increase in FDI inflows to ECOWAS countries, ceteris paribus. Finally, the estimated coefficient on the inflation rate variable (INFL) is found to be positive and statistically significant at the 5% level, taking the value of 0.027. It indicates that an increase in inflation rate by 1 percentage point is accompanied by an increase in FDI inflows of 2.7%, ceteris paribus. The empirical analysis continues, and the empirical equations are estimated through the RE and FE regression models for empirical equations that include year-specific effects to capture time-specific shocks.

**Table 5.1: ECOWAS countries Pooled OLS Regression Results**

|  | Coefficient | Standard Error | t-statistic | p-value |
|---|---|---|---|---|
| Dependent Variable: lnFDI | | | | |
| GDPGR | 0.020 | 0.013 | 1.58 | 0.117 |
| lnTROP | 1.029*** | 0.175 | 5.90 | 0.000 |
| lnRGDPC | -0.260** | 0.109 | -2.38 | 0.018 |
| INFRAS | 0.108*** | 0.034 | 3.21 | 0.002 |
| INFL | 0.027** | 0.105 | 2.53 | 0.012 |
| Year Dummies | No | --- | --- | --- |
| Observations: 251 | | | F-Statistic: 10.51 | |
| R-Squared: 0.184 | | | Prob(F-Stat): 0.00 | |

Notes: *** , ** , and * denote statistical significance at 1%, 5% and 10%, respectively.

Table 5.2 presents the results from the RE model from a specification that includes time-specific effects. The estimated coefficients on the explanatory variables are generally comparable in value and sign to the estimated coefficients in Table 5.1 above, however with different statistical significance levels - only the economic growth variable (GDPGR) and the trade openness variable (lnTROP) have statistically significant coefficient at the 5% and 1% level, respectively. The estimated coefficients on the other variables (lnRGDPC, INFRAS, and INFL) are statistically insignificant. The results imply that an increase in GDP growth rate by one percentage point leads to 3.1% rise in FDI inflows to ECOWAS countries, and that an increase in the extent of trade openness by 1% leads to 0.997% increase in FDI inflows to ECOWAS countries, ceteris paribus.

**Table 5.2: ECOWAS Countries - Panel Data Random Effects Regression Results**

| | Coefficient | Standard Error | t-statistic | p-value |
|---|---|---|---|---|
| Dependent Variable: lnFDI | | | | |
| GDPGR | 0.031** | 0.014 | 2.30 | 0.021 |
| lnTROP | 0.997*** | 0.339 | 2.94 | 0.003 |
| lnRGDPC | -0.261 | 0.280 | -0.93 | 0.352 |
| INFRAS | 0.119 | 0.151 | 0.79 | 0.432 |
| INFL | 0.027 | 0.020 | 1.39 | 0.165 |
| Year Dummies | YES | --- | --- | --- |
| Observations: 251 | | | | |
| Countries: 14 | | | | |
| R-Squared: 0.234 | | | | |

Notes: ***, ** , and * denote statistical significance at 1%, 5% and 10%, respectively.

Table 5.3 shows the results from the FE regression model from a specification that includes time-specific effects. The Hausman test rejects the null hypothesis at the 1% level, and it indicates that the FE model is preferred to the RE model. The results show that, aside from the constant of the model that is statistically significant at the 1% level, only the economic growth variable (GDPGR) and the trade openness variable (lnTROP) have statistically significant effects on FDI inflows to the ECOWAS region. The estimated coefficients on the other variables are statistically insignificant. The estimated coefficient on the economic growth variable (GDPGR) is 0.035, and it is statistically significant at the 5% level. It indicates that an increase in GDP growth rate by one percentage point leads to an increase in FDI inflows by 3.5%, ceteris paribus. Also, the estimated coefficient on the trade openness variable (lnTROP) is positive and statistically significant at the 1% level, taking the value of 1.191. Thus, this estimate indicates that an increase in the extent of trade openness by 1% leads to a rise in FDI inflows to ECOWAS countries by 1.191%, ceteris paribus. These two findings imply that trade

openness policies and policies that promote economic growth would significantly increase FDI inflows to ECOWAS countries.

**Table 5.3: ECOWAS countries Panel Data Fixed Effects Regression Results**

|  | Coefficient | Standard Error | t-statistic | p-value |
|---|---|---|---|---|
| Dependent Variable: lnFDI | | | | |
| GDPGR | 0.035** | 0.015 | 2.28 | 0.040 |
| lnTROP | 1.191*** | 0.359 | 3.32 | 0.006 |
| lnRGDPC | 1.744 | 1.073 | 1.63 | 0.128 |
| INFRAS | 0.124 | 0.159 | 0.78 | 0.450 |
| INFL | 0.015 | 0.016 | 0.92 | 0.374 |
| Year Dummies | YES | --- | --- | --- |
| Observations: 251 | | | | |
| Countries: 14 | | | | |
| R-Squared: 0.214 | | | | |

Notes: ***, **, and * denote statistical significance at 1%, 5% and 10%, respectively.

## 5.2 Empirical Results from Alternative Dataset and Empirical Specifications

The empirical analysis has used a dataset that exclusively covers ECOWAS countries. To benefit from a broader data information featuring more variations, the empirical analysis is implemented next for a dataset that includes 171 developed and developing countries, including the ECOWAS countries. The effects of the regressors for ECOWAS countries are disentangled by estimating Equations (4.3) through (4.7); where there is a general estimated coefficient for a given explanatory variable and an estimated coefficient on the interaction between that variable and ECOWAS binary variable that equals one when the corresponding country belongs to ECOWAS and zero otherwise. The empirical analysis is implemented using the Pooled OLS model, the RE model, and FE model, and the Hausman test is applied afterwards to determine the preferred empirical model.

Table 5.4 shows the empirical results when estimating the original equation (4.2) that does not include interactions with the ECOWAS dummy variable, and that includes supplementary year dummy variables to control for time-specific effects and shocks. The estimation results in Table 5.4 presents p-values in parentheses that are based on robust standard errors. Column (i) shows the estimates when using the pooled OLS estimator, column (ii) shows the results when using the RE model, and column (iii) shows the results when using the FE estimator. The variables that represented economic growth (GDPGR), Tarde Openness (LnTROP), and infrastructure (INFRAS) are all statistically significant at the conventional levels across all three estimation techniques. Those coefficients have the expected signs, except the estimated coefficient on INFRAS that is obtained through the pooled OLS estimation. Moreover, the estimated coefficient on the GDP per capita variable (lnRGDPC) is found to be positive and statistically significant at the 1% level in the case of the Pooled OLS regression, but this coefficient becomes statistically insignificant when using the RE and FE models. It is worth noting that the estimation of the empirical equation (4.2) produces overall average estimates for all countries, and there could be some deviations in these effect son FDI inflows to ECOWAS countries. The Hausman test rejects the null hypothesis at the 1% level, and it indicates that the FE model is preferred to the RE model. Given this test, the interpretation of the empirical results is carried out for the FE estimates.

In column (iii) of Table 5.4 (results from the FE model), the estimated coefficient on the economic growth variable (GDPGR) is positive and statistically significant at the 1% level. It indicates that an increase in economic growth rate by one percentage point leads to 2.19% increase in FDI inflows, ceteris paribus. Thus, economic growth has a positive effect on FDI inflows. Also, the estimated coefficient on the trade openness variable (lnTROP) is positive and statistically significant at the 1% level. It shows that an increase in the extent of trade openness by 1% leads to increases in FDI inflows by 0.522%, ceteris paribus. This estimate highlights

the importance of trade openness and liberalization policies in raising FDI inflows. The estimated coefficient on the infrastructure variable (INFRAS) is positive and statistically significant at the 1% level. Using the log of the number of mobile subscriptions as a proxy for infrastructure (Asiedu, 2002), this result highlights the importance of infrastructure in attracting inward FDI to host countries. The estimated coefficient on the Real GDP per Capita variable (lnRGDPC) is not statistically significant. It could be the outcome form two opposing factors. Higher RGDPC levels could be accompanied by higher levels of FDI inflows, since RGDPC proxies for economic and financial development. Meanwhile, higher RGDPC levels could proxy lower returns on capital, which could discourage FDI inflows. Finally, the estimated coefficient on the inflation variable (INFL) is not statistically significant.

Table 5.5 presents the pooled OLS results when estimating the empirical equations (4.3) through (4.7), which include interaction variables with the ECOWAS binary variables (ECOWAS). All empirical equations include year dummy variables, and the p-values are presented in parentheses and are based on robust standard errors. Also, Table 5.6 and Table 5.7 show the results when estimating the empirical equations (4.3) through (4.7) through the FE and RE models. Columns (i) of these tables show the empirical results when estimating equation (4.3) that includes the interaction term between the ECOWAS binary variable (ECOWAS) and the economic growth variable (GDPGR), GDPGR×ECOWAS. Columns (ii) of these tables show the results when estimating equation (4.4) - when further adding the interaction between the ECOWAS binary variable (ECOWAS) and the trade openness variable (lnTROP), lnTROP×ECOWAS. The estimates in columns (iii) of these tables are the results obtained when estimating equation (4.5) that further augment the empirical equation by adding the interaction between the ECOWAS binary variable (ECOWAS) and the log of the Real GDP per Capita variable (lnRGDPC), lnRGDPC×ECOWAS. Finally, Columns (iv) and columns (v) of these tables show the results when estimating equation (4.6) and equation (4.7), respectively; when

further adding the interaction between the ECOWAS binary variable (ECOWAS) and the infrastructure variable (INFRAS), INFRAS×ECOWAS, and when further adding the interaction between the ECOWAS binary variable (ECOWAS) and the inflation variable (INFL), INFL×ECOWAS. The Hausman test rejects the null hypotheses at the 1% level across all specifications, and it shows that the FE model is preferred to the RE model. Given the results from this test, the estimates from the FE model are discussed next.

Column (i) of Table 5.7 shows that the estimated coefficient on the interaction term between the ECOWAS binary variable (ECOWAS) and the economic growth variable (GDPGR), GDPGR×ECOWAS, is not statistically significant. This result implies that the estimated effect of economic growth on FDI inflows to ECOWAS countries is statistically equivalent to the overall effect of economic growth on FDI inflows across all countries. Then, an increase in economic growth rate by one percentage point leads to increases in FDI inflows to ECOWAS countries by 2.1%, *ceteris paribus*.  The estimated coefficients on the other (non-interacted) variables are similar to the benchmark results in column (iii) of Table 5.4.

Column (ii) of Table 5.7 presents the results when estimating equation (4.4) that includes the interaction between the ECOWAS binary variable (ECOWAS) and the trade openness variable (lnTROP), lnTROP×ECOWAS. The estimated coefficient on this interaction variable is positive but not statistically significant at the conventional levels.  This result implies that the estimated effect of trade openness on FDI inflows to ECOWAS countries is statistically equivalent to the overall effect of economic growth on FDI inflows across all countries. Then, a 1% increase in the extent of trade openness leads to increases in FDI inflows to ECOWAS countries by 0.482%, *ceteris paribus*. The estimated coefficients on the remaining (non-interacted) variables are similar to the benchmark results in Column (iii) of Table 5.4.

The results from the empirical equation that is further augmented through the inclusion of the interaction between the ECOWAS binary variable (ECOWAS) and the real GDP per

capita variable (lnRGDPC), lnRGDPC×ECOWAS (i.e. when estimating equation 4.5) are presented in column (iii) of Table 5.7. The estimated coefficients on this interaction variable, and on lnRGDPC are both statistically significant These results imply that the net GDPC effect on FDI inflows to ECOWAS countries (and to other countries as well) is not statistically different than zero. Also, the estimated coefficients on GDPGR and GDPGR×ECOWAS remain similar to those presented in the previous column of Table 5.7.

One noticeable change is that the estimated coefficient on the interaction between the ECOWAS binary variable (ECOWAS) and the trade openness variable (lnTROP), lnTROP×ECOWAS, gained statistical significance at the 10% level. These results imply that the positive effect of trade openness on FDI inflows to ECOWAS countries is considerably larger than the effect of trade openness on FDI inflows to other countries. The estimates show that a 1% increase in the extent of trade openness leads to an increase in FDI inflows to ECOWAS countries by (0.479+0.620=) 1.099% compared to an overall average effect of 0.479% across other countries, ceteris paribus. They highlight the particular importance of the returns to international trade openness policies in terms of FDI inflows to ECOWAS member countries. Then, the ECOWAS organization could enhance further intraregional trade among its members, by removing trade-restricting impediments, and it could also adopt policies that enhance trade between ECOWAS member countries and other (non-ECOWAS) trading partners.

Column (iv) of Table 5.7 shows the results when estimating equation (4.6) that further includes the interaction between the ECOWAS binary variable (ECOWAS) and the infrastructure variable (INFRAS) that is proxied by the log of number of mobile subscriptions, INFRAS×ECOWAS. The estimates on both INFRAS and INFRAS×ECOWAS are not statistically significant. Also, the estimated coefficient on lnTROP×ECOWAS remains positive and statistically significant at the 10% level, being slight larger than the corresponding estimate

in the previous column (iii) of Table 5.7. It indicates that a 1% increase in the extent of trade openness leads to an increase in FDI inflows to ECOWAS countries by (0.478+0.789=) 1.267%, ceteris paribus. Also, the estimated coefficient on the interaction between the ECOWAS binary variable (ECOWAS) and the log of real GDP per capita (lnRGDPC), lnRGDPC×ECOWAS, gains statistical significance at the 10% level, while the estimated coefficient on lnRGDPC remains statistically insignificant. These results imply positive effects of RGDPC on FDI inflows to ECOWAS countries; a 1% increase in RGDPC leads to 1.408% increase in FDI inflows to ECOWAS countries, ceteris paribus. Thus, it appears that the economic development effect of RGDPC outweighs the return to capital effect in the case of ECOWAS countries.

Finally, column (v) of Table 5.7 presents the estimates form the equation (4.7) where all explanatory variables are interacted with the ECOWAS binary variable (ECOWAS). The results are generally similar to those presented in the previous column (iv) of Table 5.7. The estimated coefficient on the economic growth variable (GDPGR) is positive and statistically significant at the 1% level, while the estimated coefficient on the interaction variable GDPGR×ECOWAS is not statistically significant. These estimates indicate that the effect of economic growth on FDI inflows to ECOWAS countries is statistically equivalent to the overall average effect of economic growth on FDI inflows – an increase in the economic growth rate by one percentage point leads to increases in FDI inflows by 2.1%, ceteris paribus. The estimated coefficient on the trade openness variable, lnTROP, is positive and statistically significant at the 1% level, taking the value of 0.477. Also, the estimated coefficient on the interaction variable, lnTROP×ECOWAS, is positive and statistically significant at the 5% level, taking the value of 0.766. These results imply that the effect of trade openness on FDI inflows to ECOWAS countries is larger than the overall average effect – an increase in the extent of

trade openness by 1% leads to increases in FDI inflows to ECOWAS countries by (0.477+0.766=) 1.243%, ceteris paribus.

The results show that the estimated coefficient on lnRGDPC is not statistically significant at the conventional levels, whereas the estimated coefficient on the interaction variable, lnRGDPC×ECOWAS is positive and statistically significant at the 10% level. These results imply that the economic development effect of RGDPC outweighs the return to capital effect in the case of ECOWAS countries. The estimated coefficient on the infrastructure variable, INFRAS, is positive and statistically significant at the 1% level, and the estimated coefficient on the interaction variable, INFRAS×ECOWAS, is not statistically significant. These results indicate that the effect of infrastructure (which is proxied by the log of number of mobile subscriptions) on FDI inflows to ECOWAS countries is statistically equivalent to the overall average effect – an increase in the number of mobile subscriptions by 1% is associated with an increase in FDI inflows by 0.169%, ceteris paribus. Finally, the estimated coefficient on the inflation variable, INFL, and on the interaction variable, INFL×ECOWAS, are both statistically insignificant.

These findings highlight the particular significance of economic growth policies and trade openness policies in stimulating FDI inflows to the ECOWAS region. Higher economic growth rates signal growing and well-performing economy, and they indicate higher returns on scale and more profitable investment opportunities (Borenzstein *et al.*, 1995). Then, the growth enhancing effect of ECOWAS countries have positive effect on FDI inflows. Regarding trade openness, ECOWAS encompassed lowering or removal of trade and non-trade obstacles between member countries, and increasing economic and political coordination and cooperation between ECOWAS member countries. Then, reduced trade barriers would boost market accessibility among members, and would attract multinational enterprises and foreign investors to the regional trading bloc to benefit from the extended regional market (Blomström and

Kokko, 1997; Blomström *et al.*, 2001; Jaumotte, 2004). ECOWAS countries could further increase regional market integration and raise the effective market size of the ECOWAS region. Also, ECOWAS member countries could adopt trade liberalization policies and pursue trade agreements with other (non-member countries) to raise trade openness and encourage multinational enterprises to undertake FDI in the ECOWAS region. It is worth noting that trade restrictions could, in some cases, lead to increases in FDI inflows, particularly in the case of market seeking FDI. Multinational enterprises facing higher trade restriction levels may "jump" those restrictions by undertaking FDI in the destination market (Asiedu, 2002; Ghazalian and Furtan, 2008, 2009). Thus, trade openness may slow down some market-seeking FDI inflows. The results also indicate that economic development and infrastructure are important factors that lead to increases in FDI inflows to the ECOWAS region. Naturally, more developed economy (including economic and financial institutions), infrastructure, and institutions would increase the productivity of foreign affiliates of multinational enterprises, raise returns to foreign investment in domestic markets, and reduce transaction costs (Asiedu, 2002; Ghazalian and Amponsem, 2019).

**Table 5.4: Global Sample Regression Results**

| | Pooled OLS | Random Effects | Fixed Effects |
|---|---|---|---|
| Dependent Variable | LnFDI | LnFDI | LnFDI |
| GDPGR | 0.032*** | 0.023*** | 0.0219*** |
| | (0.000) | (0.001) | (0.004) |
| lnTROP | 0.969*** | 0.659*** | 0.522*** |
| | (0.000) | (0.001) | (0.002) |
| lnRGDPC | 0.068*** | 0.042 | -0.207 |
| | (0.001) | (0.521) | (0.397) |
| INFRAS | -0.009* | 0.048*** | 0.165*** |
| | (0.071) | (0.009) | (0.000) |
| INFL | 0.002 | 0.0003 | 0.001 |
| | (0.272) | (0.793) | (0.602) |
| Year Dummies | YES | YES | YES |
| Countries | 171 | 171 | 171 |
| Observations | 3033 | 3033 | 3033 |
| R-Squared | 0.233 | 0.095 | 0.105 |
| F-Stat | 19.44*** | 181.78*** | 7.07*** |

Notes: p-values in parentheses. ***, ** , and * denote statistical significance at 1%, 5% and 10%, respectively.

**Table 5.5: Global Sample Regression with ECOWAS Interaction Variables - Pooled OLS Estimations**

| | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| Dependent Variable | lnFDI | lnFDI | lnFDI | lnFDI | lnFDI |
| GDPGR | 0.031*** | 0.031*** | 0.031*** | 0.031*** | 0.031*** |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| GDPGR×ECOWAS | 0.012 | -0.007 | -0.007 | -0.007 | -0.008 |
| | (0.465) | (0.634) | (0.636) | (0.625) | (0.586) |
| lnTROP | 0.976*** | 1.008*** | 0.997*** | 0.993*** | 0.988*** |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| lnTROP×ECOWAS | | 0.104** | 0.317*** | 0.308** | 0.303** |
| | | (0.018) | (0.001) | (0.028) | (0.032) |
| lnRGDPC | 0.671*** | 0.064*** | 0.068*** | 0.069*** | 0.068*** |
| | (0.001) | (0.002) | (0.001) | (0.001) | (0.001) |
| lnRGDPC×ECOWAS | | | -0.131 | -0.154* | -0.174* |
| | | | (0.111) | (0.077) | (0.056) |
| INFRAS | -0.006 | 0.015 | 0.013 | 0.011 | 0.010 |
| | (0.427) | (0.205) | (0.297) | (0.394) | (0.448) |
| INFRAS×ECOWAS | | | | 0.050 | 0.062* |
| | | | | (0.110) | (0.063) |
| INFL | 0.002 | 0.002 | 0.002 | 0.002 | 0.001 |
| | (0.274) | (0.248) | (0.245) | (0.249) | (0.299) |
| INFL×ECOWAS | | | | | 0.019* |
| | | | | | (0.070) |
| Year Dummies | YES | YES | YES | YES | YES |
| Countries | 171 | 171 | 171 | 171 | 171 |
| Observations | 3033 | 3033 | 3033 | 3033 | 3033 |
| R-Squared | 0.233 | 0.235 | 0.235 | 0.235 | 0.235 |
| F-Stat | 18.77*** | 18.24*** | 19.52*** | 19.79** | 19.79*** |

Notes: p-values in parentheses. ***, ** , and * denote statistical significance at 1%, 5% and 10%, respectively.

**Table 5.6: Global Sample Regression with ECOWAS Interaction Variables - Panel Data Random Effects Estimation**

|  | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| Dependent Variable | lnFDI | lnFDI | lnFDI | lnFDI | lnFDI |
| GDPGR | 0.022*** | 0.022** | 0.022*** | 0.022*** | 0.022*** |
|  | (0.000) | (0.002) | (0.002) | (0.002) | (0.002) |
| GDPGR×ECOWAS | 0.021 | 0.007 | 0.007 | 0.007 | 0.007 |
|  | (0.192) | (0.604) | (0.605) | (0.627) | (0.602) |
| lnTROP | 0.660*** | 0.689*** | 0.688*** | 0.683*** | 0.683*** |
|  | (0.001) | (0.000) | (0.001) | (0.001) | (0.001) |
| lnTROP×ECOWAS |  | 0.328*** | 0.345 | 0.365 | 0.335 |
|  |  | (0.002) | (0.391) | (0.362) | (0.403) |
| lnRGDPC | 0.043 | 0.068 | 0.068 | 0.071 | 0.070 |
|  | (0.511) | (0.297) | (0.300) | (0.288) | (0.289) |
| lnRGDPC×ECOWAS |  |  | -0.011 | -0.038 | -0.030 |
|  |  |  | (0.965) | (0.883) | (0.909) |
| INFRAS | 0.052*** | 0.102*** | 0.102*** | 0.099*** | 0.099*** |
|  | (0.007) | (0.001) | (0.001) | (0.003) | (0.003) |
| INFRAS×ECOWAS |  |  |  | 0.021 | 0.025 |
|  |  |  |  | (0.751) | (0.694) |
| INFL | 0.000 | 0.001 | 0.001 | 0.001 | 0.001 |
|  | (0.805) | (0.651) | (0.664) | (0.664) | (0.686) |
| INFL×ECOWAS |  |  |  |  | 0.008 |
|  |  |  |  |  | (0.533) |
| Year Dummies | YES | YES | YES | YES | YES |
| Countries | 171 | 171 | 171 | 171 | 171 |
| Observations | 3033 | 3033 | 3033 | 3033 | 3033 |
| R-Squared | 0.096 | 0.101 | 0.101 | 0.101 | 0.101 |
| Wald Chi-SQ Stat | 181.24*** | 182.54*** | 184.20*** | 186.37*** | 186.35*** |

Notes: p-values in parentheses. ***, ** , and * denote statistical significance at 1%, 5% and 10%, respectively.

**Table 5.7: Global Sample Regression with ECOWAS Interaction Variables - Panel Data Fixed Effects Estimation**

| | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| Dependent Variable | lnFDI | lnFDI | lnFDI | lnFDI | lnFDI |
| GDPGR | 0.021*** | 0.021** | 0.021*** | 0.021*** | 0.021*** |
| | (0.008) | (0.008) | (0.008) | (0.008) | (0.008) |
| GDPGR×ECOWAS | 0.013 | 0.007 | 0.005 | 0.003 | 0.003 |
| | (0.389) | (0.604) | (0.768) | (0.833) | (0.602) |
| lnTROP | 0.520*** | 0.482*** | 0.479*** | 0.478*** | 0.477*** |
| | (0.002) | (0.003) | (0.003) | (0.002) | (0.003) |
| lnTROP×ECOWAS | | 0.620 | 0.692* | 0.789* | 0.766** |
| | | (0.175) | (0.078) | (0.035) | (0.046) |
| lnRGDPC | -0.206 | -0.192 | -0.201 | -0.259 | -0.259 |
| | (0.401) | (0.433) | (0.413) | (0.302) | (0.303) |
| lnRGDPC×ECOWAS | | | 0.672 | 1.408* | 1.562* |
| | | | (0.381) | (0.069) | (0.052) |
| INFRAS | 0.165*** | 0.162*** | 0.156*** | 0.170*** | 0.169*** |
| | (0.000) | (0.001) | (0.000) | (0.000) | (0.000) |
| INFRAS×ECOWAS | | | | -0.093 | -0.092 |
| | | | | (0.207) | (0.210) |
| INFL | 0.001 | 0.001 | 0.000 | 0.001 | 0.001 |
| | (0.617) | (0.649) | (0.666) | (0.618) | (0.647) |
| INFL×ECOWAS | | | | | 0.013 |
| | | | | | (0.428) |
| Year Dummies | YES | YES | YES | YES | YES |
| Countries | 171 | 171 | 171 | 171 | 171 |
| Observations | 3033 | 3033 | 3033 | 3033 | 3033 |
| R-Squared | 0.105 | 0.106 | 0.107 | 0.108 | 0.108 |
| F-Statistic | 6.89*** | 6.73*** | 6.86*** | 7.11*** | 7.08*** |

Notes: p-values in parentheses. ***, **, and * denote statistical significance at 1%, 5% and 10%, respectively.

**CHAPTER SIX**

**CONCLUSION**

The importance of capital for economic growth and development is much discussed in the economic growth and development literature. This is especially the case for developing countries - while generally abundant in labour and, in some cases, resources, they lack capital. FDI inflows provide a source of capital for developing countries that promotes capital accumulation and that contributes to diverse sectors of the economy. Also, inward FDI is beneficial for host countries through knowledge spillover, advanced technology transfers, and direct and indirect employment creation. In many cases, inward FDI, through the operations of foreign affiliates of multinational enterprises, raises competition in the domestic market and increases efficiency.

ECOWAS is one of the most prominent RTAs in SSA, and it represents important developing geo-economic region with significant economic potentials. ECOWAS includes 15 West African countries; eight ECOWAS members are French-speaking countries (Benin, Burkina Faso, Cote d'Ivoire, Guinea, Mali, Niger, Senegal, and Togo), five members are English-Speaking countries (The Gambia, Ghana, Liberia, Nigeria, and Sierra Leone), and two members are Portuguese-speaking countries (Cabo Verde, and Guinea-Bissau). Among the SSA sub-regions, ECOWAS is primarily distinguished by having the greatest levels of FDI inflows. Thus, it is important to empirically analyze FDI inflows to the ECOWAS region to comprehend existing and future patterns, as well as to assess and recommend economic strategies. While there have been general increases in inward FDI over time, there remain various economic and political challenges and potentials to stimulate inward FDI to the ECOWAS region - more so in light of competing regions in SSA for FDI inflows. Therefore, it is important to identify the factors that affect FDI inflows to the ECOWAS region, and to

determine ECOWAS-specific magnitudes of those effects to develop economic policies and strategies to increase FDI inflows to the ECOWAS region.

This thesis investigates the determinants of FDI inflows to ECOWAS countries using a panel dataset that covers various countries and spans the period of 2001-2019. The empirical research particularly focuses on the effects of trade openness and economic growth, among other factors, on FDI inflows to the ECOWAS region. Pooled OLS, panel data random effect, and panel data fixed effect estimators are used to implement the regressions, and various empirical equations are specified. The empirical analysis initially executes the regressions for a sub-dataset that exclusively covers ECOWAS countries. Then, the empirical analysis is implemented for a broader dataset that covers a range of developed and developing countries to benefit from variation in the dataset. The ECOWAS-specific effects of the regressors are derived by including interaction terms between the corresponding variables and the ECOWAS binary variable that equals one when the observations are for ECOWAS countries and zero otherwise.

The empirical results show important positive effects of trade openness on FDI inflows to the ECOWAS region. These results also indicate that the marginal effects of trade openness are higher in the case of ECOWAS countries compared to the overall average marginal effects. These findings highlight the significance of FDI inflows to ECOWAS member countries through international trade openness policies. Then, the ECOWAS organization could further promote intra-regional trade among its member countries. It could also implement policies that increase trade flows between ECOWAS member countries and other (non-ECOWAS) trading partners. The empirical results further show significant effects of economic growth and development, and infrastructure on FDI inflows to the ECOWAS region. The results do not support that higher returns to capital have large effects on FDI inflows to the ECOWAS region.

Overall, these results emphasize the importance of growth-enhancing macroeconomic policies and improved infrastructure in increasing FDI inflows to the ECOWAS region.

This thesis provides information to the governments of the ECOWAS member countries as well as to the ECOWAS organization regarding the variables and policies that encourage FDI inflows to the ECOWAS region, and that draw FDI to specific ECOWAS countries. The governments of ECOWAS countries should prioritize economic policies that lead to higher levels of economic growth and trade openness. These policies will eventually result in respective countries attracting more FDI inflows, particularly those emanating from developed countries that seek to benefit from the larger market size of the ECOWAS region, abundant natural resources, and lower-wage labour force.

The findings in this thesis suggest that greater collaborations and cooperations among ECOWAS countries through greater openness to intra-regional and international trade are essential for the region to collectively attract more FDI inflows - there exist significant benefits for the entire ECOWAS region from higher levels of FDI inflows. The ECOWAS region's market size could grow because of increased regional market integration by member countries. To increase trade openness and entice multinational enterprises to undertake FDI in the ECOWAS region, member countries of the organization could adopt trade liberalization policies and pursue trade agreements with other (non-member) countries. Furthermore, some ECOWAS countries (e.g., Nigeria, Ghana, Benin, and Togo) could take advantage of their ports to encourage multinational enterprises to undertake FDI to establish export platforms through maritime transportation to other countries and continents.

There is a need for ECOWAS countries to achieve higher levels of economic development that is accompanied by improvement in economic and financial institutions, and increases in human capital. Also, the importance of infrastructure for business is often featured through reductions in business transaction costs that would result in greater profitability. Thus,

for ECOWAS countries to further boost FDI inflows, the governments of those countries should significantly invest in the provision of quality infrastructure, including transportation systems, information and communication networks, sewage, water, electricity, and school and training systems. Afterall, more developed infrastructure and improvement in economic and financial institutions would boost returns on foreign investment in domestic markets, increase productivity of foreign affiliates of multinational enterprises, and lower transaction costs.

Finally, it is important to note that ECOWAS countries should encourage some specific types of FDI that generate benefits to their economies in terms of knowledge and technological spillover and job creation. For example, ECOWAS countries should decrease their concentration on attracting FDI in extraction of natural resources while encouraging FDI inflows into the manufacturing and service sectors. Moreover, the envisaged advantages of inward FDI may not be realized by the ECOWAS countries without some essential requirements. For instance, ECOWAS countries are required to increase human capital and improve infrastructure and market mechanisms to enhance knowledge and technological spillovers that benefit their economies. Environmental hazards are another key worry surrounding FDI because many developing nations have inadequate environmental protection laws. This can induce some foreign corporations (particularly those that undertake FDI in extraction of natural resources) to take advantage of the situation, and to get engaged in ecologically unfavourable actions with negative effects on the environment of host countries. Consequently, ECOWAS countries should favour FDI inflows that generate benefits to their economies (for example, knowledge and technological spillover, and employment), and that do not crowd out domestic investment and do not cause negative implications for the environment.

# REFERENCES

Abbring, J. H., Campbell, J. R., & Yang, N. (2014). Sunk Costs, Entry, and Exit in Dynamic Oligopoly. *Entry, and Exit in Dynamic Oligopoly (March 16, 2014)*.

Agarwal, J. P. (1980). Determinants of foreign direct investment: A survey.

Agmon, T., & Lessard, D. R. (1977). Investor recognition of corporate international diversification. *The Journal of Finance*, *32*(4), 1049-1055.

Alfaro, L., Chanda, A., Kalemli-Ozcan, S., & Sayek, S. (2003). *FDI Spillovers, Financial Markets, and Economic Development*. International Monetary Fund.

Ang, J. B. (2008). Determinants of foreign direct investment in Malaysia. *Journal of Policy Modeling*, *30*(1), 185-189.

Antwi, S. & Zhao, X. (2013). Impact of Foreign Direct Investment and Economic Growth in Ghana: A Cointegration Analysis. *International Journal of Business and Social Research*, 3(1), 64-74.

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). Regional comparison of foreign direct investment to Africa: Empirical analysis. *African Development Review*, *27*(4), 345-363.

Asiedu, E. (2002). On the determinants of foreign direct investment to developing countries: is Africa different? *World Development*, *30*(1), 107-119.

Asongu, S., Akpan, U. S., & Isihak, S. R. (2018). Determinants of foreign direct investment in fast-growing economies: evidence from the BRICS and MINT countries. *Financial Innovation*, *4*(1), 1-17.

Asongu, S., Akpan, U. S., & Isihak, S. R. (2018). Determinants of foreign direct investment in fast-growing economies: evidence from the BRICS and MINT countries. *Financial Innovation*, *4*(1), 1-17.

Awolusi, O. D. (2018). Policy and Non-Policy Factors: What Determines Foreign Direct Investments in Africa? *Journal of Social and Development Sciences*, *9*(4), 49-61.

Bajrami, H. (2019). Theories of foreign direct investment (FDI) and the significance of human capital.

Baltagi, B. H., Egger, P., & Pfaffermayr, M. (2007). Estimating models of complex FDI: Are there third-country effects? *Journal of Econometrics*, *140*(1), 260-281.

Bengoa, M., & Sanchez-Robles, B. (2003). Foreign direct investment, economic freedom and growth: new evidence from Latin America. *European Journal of Political Economy*, *19*(3), 529-545.

Berger, A., Busse, M., Nunnenkamp, P., & Roy, M. (2013). Do trade and investment agreements lead to more FDI? Accounting for key provisions inside the black box. *International Economics and Economic Policy*, *10*(2), 247-275.

Bilgili, F., Tülüce, N. S. H., & Doğan, İ. (2012). The determinants of FDI in Turkey: A Markov regime-switching approach. *Economic Modelling*, *29*(4), 1161-1169.

Botrić, V., & Škuflić, L. (2006). Main determinants of foreign direct investment in the southeast European countries. *Transition Studies Review*, *13*(2), 359-377.

Breivik, A. L. (2014). *Determinants of Chinese FDI in Africa: an econometric analysis* (Master's thesis, The University of Bergen).

Brenner, T. (2014). *The impact of foreign direct investment on economic growth-an empirical analysis of different effects in less and more developed countries* (No. 05.14). Working papers on Innovation and Space.

Bryant, C., & White, L. G. (2019). *Managing development in the Third World*. Routledge.

Buckley, P. J. (2011). *Globalization and the global factory*. Edward Elgar Publishing.

Buckley, P. J., & Casson, M. (1976). A long-run theory of the multinational enterprise. In *The future of the multinational enterprise* (pp. 32-65). Palgrave Macmillan, London.

Cherif, M., & Dreger, C. (2018). Do regional trade agreements stimulate FDI? Evidence for the Agadir, MERCOSUR and AFTA regions. *Review of Development Economics*, *22*(3), 1263-1277.

Clegg, J. (1987). *Multinational enterprise and world competition: a comparative study of the USA, Japan, the UK, Sweden and West Germany*. Springer.

Cole, M. A., Elliott, R. J., & Zhang, J. (2009). Corruption, governance and FDI location in China: A province-level analysis. *The Journal of Development Studies*, *45*(9), 1494-1512.

Cuervo-Cazurra, A. (2012). Extending theory by analysing developing country multinational companies: Solving the Goldilocks debate. *Global Strategy Journal*, *2*(3), 153-167.

Damgaard, J., Elkjaer, T., & Johannesen, N. (2019). *What is real and what is not in the global FDI network?* International Monetary Fund.

Djurovic, A. B. (2012). Impact of foreign direct investment on the economic growth of developing countries (2000-2010). *Economic Development*, *14*(2-3), 63-83.

Dunning, J. H. (1973). The determinants of international production. *Oxford Economic Papers*, *25*(3), 289-336.

Dunning, J. H. (1979). Explaining changing patterns of international production: in defence of the eclectic theory. *Oxford Bulletin of Economics and Statistics*, *41*(4), 269-295.

Dunning, J. H. (1982). Explaining the international direct investment position of countries: towards a dynamic or developmental approach. In *International Capital Movements* (pp. 84-121). Palgrave Macmillan, London.

Dunning, J. H., (1993). *Multinational Enterprises and the Global Economy.* Essex: Addison Wesley Publishing Co

Dunning, J. H. (Ed.). (2000). *Regions, globalization, and the knowledge-based economy*. OUP Oxford.

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.

Duong, M., Holmes, M. J., & Strutt, A. (2021). The impact of free trade agreements on FDI inflows: the case of Vietnam. *Journal of the Asia Pacific Economy*, *26*(3), 483-505.

Duong, M., Holmes, M. J., Strutt, A., & Lim, S. (2019). Effects of trade agreements and foreign direct investment on trade: evidence from Vietnam. *International Journal of Economics and Financial Issues*, *9*(3), 116.

Edoumiekumo, S. (2009). Foreign Direct Investment and Economic Growth in Nigeria: A Granger Causality Test. *Journal of Research in National Development*, 7(2).

Elboaiashi, H. (2015). The effect of FDI on economic growth and the importance of host country characteristics. *Journal of Economics and International Finance*, 7(2), 25-41.

Ethier, W. J. (1986). The multinational firm. *The Quarterly Journal of Economics*, *101*(4), 805-833.

Falki, N. (2009). Impact of foreign direct investment on economic growth in Pakistan. *International Review of Business Research Papers*, *5*(5), 110-120.

Fedderke, J. W., & Romm, A. T. (2006). Growth impact and determinants of foreign direct investment into South Africa, 1956–2003. *Economic Modelling*, *23*(5), 738-760.

Ghazalian, P. L. (2009). Liberalisation of trade in primary agricultural commodities: expected effects on food processing FDI. *The Estey Centre Journal of International Law and Trade Policy*, *10*(1), 209.

Ghazalian, P. L., & Amponsem, F. (2019). The effects of economic freedom on FDI inflows: An empirical analysis. *Applied Economics*, *51*(11), 1111-1132.

Ghazalian, P. L., & Furtan, W. H. (2008). The effects of multinational activities on the measurement of home bias. *Journal of the Japanese and International Economies*, *22*(3), 401-416.

Ghazalian, P. L., & Furtan, W. H. (2009). CUSFTA effects: A joint consideration of trade and multinational activities. *The Journal of International Trade & Economic Development*, *18*(4), 487-504.

Grubel, H. G. (1968). Internationally diversified portfolios: welfare gains and capital flows. *The American economic review*, *58*(5), 1299-1314.

Hailu, Z. A. (2010). Demand side factors affecting the inflow of foreign direct investment to African countries: does capital market matter? *International Journal of Business and Management*, *5*(5), 104.

Hennart, J. F. 1982. A Theory of the Multinational Enterprise. Ann Arbor: University of Michigan Press.

Herger, N., & McCorriston, S. (2016). Horizontal, vertical, and conglomerate cross-border acquisitions. *IMF Economic Review*, *64*(2), 319-353.

Hicks, B. (2007). *Regional trade agreements and foreign direct investment* (Doctoral dissertation).

Huang, Y. (2001). *The benefits of FDI in a transitional economy: the case of China*. OECD.

Hughes, J. S., Logue, D. E., & Sweeney, R. J. (1975). Corporate international diversification and market assigned measures of risk and diversification. *Journal of Financial and Quantitative Analysis*, *10*(4), 627-637.

Hymer, S. (1976). The international operations of national firms: A study of foreign investment. *Monographs in Economics 14 (Cambridge: MIT Press, 1976); Charles Kindel*, 61.

Im, H. (2016). The effects of regional trade agreements on FDI by its origin and type: Evidence from US multinational enterprises activities. *Japan and the World Economy*, *39*, 1-11.

Ismail, N. W. (2009). The determinant of foreign direct investment in ASEAN: a semi-gravity approach. *Transition Studies Review*, *16*(3), 710-722.

Itaki, M. (1991). A critical assessment of the eclectic theory of the multinational enterprise. *Journal of International Business Studies*, *22*(3), 445-460.

Jadhav, P. (2012). Determinants of foreign direct investment in BRICS economies: Analysis of economic, institutional and political factor. *Procedia-Social and Behavioural Sciences*, *37*, 5-14.

Jigme, S. (2006). Determinants Affecting Foreign Direct Investment. Bhutan: Perception of Government officers In―Bimst-Ec‖ Member Countries, A Thesis Submitted in Partial Fulfilment of The Requirements for The Degree Of Master of Business Administration, Department of International Business Graduate School, *The University of The Thai Chamber of Commerce,* 79pp.

Johanson, J., & Vahlne, J. E. (1990). The mechanism of internationalisation. *International Marketing Review*.

Johanson, J., & Vahlne, J. E. (2017). The internationalization process of the firm—a model of knowledge development and increasing foreign market commitments. In *International business* (pp. 145-154). Routledge.

Johanson, J., & Wiedersheim-Paul, F. (1975). The internationalization of the firm: Four Swedish cases. *Journal of Management Studies*, *12*(3), 305-322.

Keho, Y. (2015). Foreign Direct Investment, Exports and Economic Growth: Some African Evidence. *Journal of Applied Economics & Business Research*, *5*(4).

Khaliq, A., & Noy, I. (2007). Foreign direct investment and economic growth: Empirical evidence from sectoral data in Indonesia. *Journal of Economic Literature*, *45*(1), 313-325.

Kim, D. D. K., & Seo, J. S. (2003). Does FDI inflow crowd out domestic investment in Korea? *Journal of economic studies*.

Kinuthia, B. K., & Murshed, S. M. (2015). FDI determinants: Kenya and Malaysia compared. *Journal of Policy Modeling*, *37*(2), 388-400.

Knickerbocker, F. T. (1973). Oligopolistic reaction and multinational enterprise. *The International Executive*, *15*(2), 7-9.

Kojima, K. (1978). Direct Foreign Investment to Developing Countries: The Issue of Over-Presence. *Hitotsubashi Journal of Economics*, 1-15.

Kojima, K. (1982). Macroeconomic versus international business approach to direct foreign investment. *Hitotsubashi Journal of Economics*, 1-19.

Kojima, K. (1985). Japanese and American direct investment in Asia: A comparative analysis. *Hitotsubashi Journal of Economics*, 1-35.

Kojima, K. (2010). *Direct Foreign Investment: A Japanese Model of Multi-National Business Operations* (Vol. 10). Routledge.

Kok, R., & Ersoy, B. A. (2009). Analyses of FDI determinants in developing countries. *International Journal of Social Economics*.

Kundan, M. P., & Gu, Q. (2010). A time series analysis of foreign direct investment and economic growth: A case study of Nepal. *International Journal of Business and Management*, *5*(2), 144.

Kurtishi-Kastrati, S. (2013). The Effects of Foreign Direct Investments for Host Country's Economy. *European Journal of Interdisciplinary Studies*, *5*(1).

Lessard, D. R. (1973). International portfolio diversification: a multivariate analysis for a group of Latin American countries. *The Journal of Finance*, *28*(3), 619-633.

Lessard, D. R. (1976). World, country, and industry relationships in equity returns: implications for risk reduction through international diversification. *Financial Analysts Journal*, *32*(1), 32-38.

Letto-Gillies, G. (1992). International Production, Cambridge: Cambridge Policy Press.

Levy, H., & Sarnat, M. (1970). International diversification of investment portfolios. *The American Economic Review*, *60*(4), 668-675.

Loewendahl, H. (2001). A framework for FDI promotion. *Transnational Corporations*, *10*(1), 1-42.

Lundan, S. M., & Jones, G. (2001). The 'Commonwealth Effect' and the process of internationalisation. *World Economy*, *24*(1), 99-118.

Maddala, G. S. (2001). *Introduction to Econometrics* (Third edition). New York: Wiley.

Markowitz, W. (1959). Variations in rotation of the earth, results obtained with the dual-rate moon camera and photographic zenith tubes. In *Symposium-International Astronomical Union* (Vol. 11, pp. 26-33). Cambridge University Press.

Markusen, J. R. (2000). *Foreign direct investment and trade*. Centre for International Economic Studies.

Mathews, J. A. (2006). Dragon multinationals: New players in 21st century globalization. *Asia Pacific Journal of Management*, *23*(1), 5-27.

Mathews, J. A. (2017). Dragon multinationals powered by linkage, leverage and learning: A review and development. *Asia Pacific Journal of Management*, *34*(4), 769-775.

Meguerian-Faria, R. (2020). Forget BIT: The Impact of RTA on FDI and Economic Growth-A Comparison of Brazil and Mexico. *Nw. J. Int'l L. & Bus.*, *41*, 139.

Miller, J. C., & Pras, B. (1980). The effects of multinational and export diversification on the profit stability of US corporations. *Southern Economic Journal*, 792-805.

Moon, H. C., & Roehl, T. W. (2001). Unconventional foreign direct investment and the imbalance theory. *International Business Review*, *10*(2), 197-215.

Moosa, I. (2002). *Foreign Direct Investment: Theory, Evidence and Practice*. Springer.

Nordstrom, K. A. (1990). The internationalization process of the firm in a new perspective. *Institute of International Business, Stockholm School of Economics, Stockholm, Sweden*.

Pazienza, P. (2014). *The relationship between FDI and the natural environment: Facts, evidence and prospects*. Springer Science & Business Media.

Petrochilos, G. A. (1989). *Foreign direct investment and the development process: The case of Greece*. Gower Publishing Company.

Rogmans, T., & Ebbers, H. (2013). The determinants of foreign direct investment in the Middle East North Africa region. *International Journal of Emerging Markets*.

Rugman, A. (1975). Motives for foreign investment: The market imperfections and risk diversification hypotheses. *Journal of World Trade*, *9*(5).

Rugman, A. M. (1979). International diversification and the multinational enterprise.

Rugman, A. (Ed.). (2013). *New Theories of the Multinational Enterprise (RLE International Business)*. Routledge.

Sabir, S., Rafique, A., & Abbas, K. (2019). Institutions and FDI: evidence from developed and developing countries. *Financial Innovation*, *5*(1), 1-20.

Sackey, F. G., Compah-Keyeke, G., & Nsoah, J. (2012). Foreign Direct Investment and Economic Growth in Ghana. *Journal of Economics and Sustainable Development*, 3(10), 2012.

Sang-Hyup, S. (1998). *European Integration and Foreign Direct Investment in the EU: The Case of the Korean Consumer Electronics Industry*. Routledge.

Sen, S. (2010). International trade theory and policy: A review of the literature.

Shi, J. (2019). Vertical FDI and exchange rates over the business cycle: The welfare implications of openness to FDI. *Journal of Development Economics*, *138*, 274-293.

Spulber, D. F. (2007). *Global competitive strategy*. Cambridge University Press.

Tang, S., Selvanathan, E. A., & Selvanathan, S. (2008). Foreign direct investment, domestic investment and economic growth in China: A time series analysis. *World Economy*, *31*(10), 1292-1309.

Tang, S., Selvanathan, E. A., & Selvanathan, S. (2012). *China's economic miracle: does FDI matter?* Edward Elgar Publishing.

Thompson, L. M. (1985). The political mythology of apartheid.

Tintin, C. (2012). FDI, Institutions and Growth: Evidence from BRICS and Turkey. In *the Annual Conference on International Political Economy*.

Tobin, J. (1958). Liquidity preference as behaviour towards risk. *The review of economic studies*, *25*(2), 65-86.

Urgaia, W. R. (2016). The Impact of Foreign Direct Investment on GDP Growth in East Africa. *China-USA Business Review,* 16(11), 521-540

Vernon, R. (1979). The product cycle hypothesis in a new international environment. *Oxford bulletin of economics and statistics*, *41*(4), 255-267.

Vu, T. B. (2008). Foreign direct investment and endogenous growth in Vietnam. *Applied Economics*, *40*(9), 1165-1173.

Wojciechowski, L. (2013). The Determinants of FDI Flows from the EU-15 to the Visegrad Group Countries: A Panel Gravity Model Approach. *Entrepreneurial Business and Economics Review*, *1*(1), 7-22.

Yapatake, P. K., Li, S. J., & Abeid, R. A. (2017). *Military Expenditure, Export, FDI and Economic Performance in Cameroon* (No. 17/002). Centre de Recherche pour le Développement Économique (CEREDEC).

Yaqub, J. O., Adam, S. L., & Ayodele, J. (2013). Foreign direct investment and economic growth in Nigeria: an empirical analysis. *American Academic & Scholarly Research Journal*, *5*(1), 74.

Zekarias, S. M. (2016). The impact of foreign direct investment (FDI) on economic growth in Eastern Africa: Evidence from panel data analysis. *Applied Economics and Finance*, *3*(1), 145-160.

# APPENDIX

**Table A.1. Means of selected macro-economic and socio-economic indicators over time intervals (2001-2020): Benin**

|  | [2001-2005] | [2006-2010] | [2011-2015] | [2016-2020] |
|---|---|---|---|---|
| GDP Growth Rate (%) | 3.91 | 3.85 | 4.62 | 5.28 |
| GDP (US Dollars) | 8,915,788,555.00 | 9,569,801,470 | 10,800,000,000 | 12,600,000,000 |
| GDP per Capita (US Dollars) | 1,186.05 | 1,100.09 | 1,073.38 | 1,097.27 |
| Trade Openness (% of GDP) | 42.53 | 46.56 | 55.84 | 58.15 |
| Net FDI inflows (% of GDP) | -0.12 | 0.48 | 2.26 | 0.77 |
| Population | 7,524,982.00 | 8,702,513 | 10,011,495.6 | 11,491,330 |
| Primary School Enrolment (%) | 7.76 | 11.21 | 14.78 | 22.38 |

**Table A.2. Means of selected macro-economic and socio-economic indicators over time intervals (2001-2020): Burkina Faso**

|  | [2001-2005] | [2006-2010] | [2011-2015] | [2016-2020] |
|---|---|---|---|---|
| GDP Growth Rate (%) | 6.38 | 5.51 | 5.42 | 5.28 |
| GDP (US Dollars) | 7,692,290,985.00 | 9,088,648,728 | 11,100,000,000 | 13,400,000,000 |
| GDP per Capita (US Dollars) | 606.86 | 617.97 | 651.6 | 676.5 |
| Trade Openness (% of GDP) | 32.60 | 38.73 | 60.14 | 59.11 |
| Net FDI inflows (% of GDP) | 0.47 | 0.58 | 2.4 | 1.42 |
| Population | 12,668,964.20 | 14,703,447.2 | 17,084,520.6 | 19,763,143 |
| Primary School Enrolment (%) | 12.89 | 13.75 | 16.43 | 20.94 |

**Table A.3. Means of selected macro-economic and socio-economic indicators over time intervals (2001-2020): Cabo Verde**

|  | [2001-2005] | [2006-2010] | [2011-2015] | [2016-2020] |
|---|---|---|---|---|
| GDP Growth Rate (%) | 5.75 | 6 | 1.49 | 0.76 |
| GDP (US Dollars) | 1,226,450,844.00 | 1,567,609,030 | 1,616,702,804 | 1,669,113,311 |
| GDP per Capita (US Dollars) | 2,725.35 | 3,258.45 | 3,160.69 | 3,071.72 |
| Trade Openness (% of GDP) | 99.59 | 100.5 | 100.12 | 107.01 |
| Net FDI inflows (% of GDP) | 4.88 | 10.13 | 6.68 | 5.3 |
| Population | 449,646.80 | 480,879 | 511,771 | 543,665.4 |
| Primary School Enrolment (%) | 0.00 | 0.37 | 0.76 | 1.47 |

**Table A4. Means of selected macro-economic and socio-economic indicators over time intervals (2001-2020): Cote D' Ivoire**

|  | [2001-2005] | [2006-2010] | [2011-2015] | [2016-2020] |
|---|---|---|---|---|
| GDP Growth Rate (%) | -1.09 | 3.83 | 5.92 | 5.92 |
| GDP (US Dollars) | 36,200,000,000.00 | 35,300,000,000 | 40,200,000,000 | 53,000,000,000 |
| GDP per Capita (US Dollars) | 2,059.02 | 1,796.03 | 1,814.45 | 2,113.49 |
| Trade Openness (% of GDP) | 56.64 | 64.24 | 59.95 | 46.11 |
| Net FDI inflows (% of GDP) | 1.25 | 1.3 | 1 | 2.6 |
| Population | 17,601,837.00 | 19,624,764.6 | 22,107,433.2 | 25,084,851 |
| Primary School Enrolment (%) | 11.12 | 10.94 | 13.26 | 14.78 |

**Table A5. Means of selected macro-economic and socio-economic indicators over time intervals (2001-2020): Gambia**

|  | [2001-2005] | [2006-2010] | [2011-2015] | [2016-2020] |
|---|---|---|---|---|
| DP Growth Rate (%) | 2.82 | 4.26 | 0.53 | 3.99 |
| GDP (US Dollars) | 1,326,777,696.00 | 1348514906 | 1357142400 | 1484345944 |
| GDP per Capita (US Dollars) | 915.92 | 797.09 | 691.55 | 650.6 |
| Trade Openness (% of GDP) | 55.08 | 43.31 | 49.4 | 52.13 |
| Net FDI inflows (% of GDP) | 5.46 | 4.71 | 3.51 | 3.87 |
| Population | 1,450,905.40 | 1690810.8 | 1965353.4 | 2281497 |
| Primary School Enrolment (%) | 15.30 | 21.29 | 28.27 | 30.11 |

**Table A6. Means of selected macro-economic and socio-economic indicators over time intervals (2001-2020): Ghana**

|  | [2001-2005] | [2006-2010] | [2011-2015] | [2016-2020] |
|---|---|---|---|---|
| GDP Growth Rate (%) | 5.04 | 6.53 | 7.13 | 4.92 |
| GDP (US Dollars) | 29,000,000,000.00 | 3,450,0000,000 | 47,000,000,000 | 55,200,000,000 |
| GDP per Capita (US Dollars) | 1,397.64 | 1,462.64 | 1,766.85 | 1,851.64 |
| Trade Openness (% of GDP) | 100.53 | 69.55 | 76.12 | 70.25 |
| Net FDI inflows (% of GDP) | 1.47 | 7.02 | 6.8 | 5.06 |
| Population | 20,768,117.80 | 23,571,478.4 | 26,613,098.2 | 29,772,264 |
| Primary School Enrolment (%) | 18.02 | 16.63 | 22.6 | 27.18 |

**Table A.7. Means of selected macro-economic and socio-economic indicators over time intervals (2001-2020): Guinea**

|  | [2001-2005] | [2006-2010] | [2011-2015] | [2016-2020] |
|---|---|---|---|---|
| GDP Growth Rate (%) | 3.08 | 3.17 | 4.6 | 8.02 |
| GDP (US Dollars) | 7,196,768,468.00 | 7,398,638,629 | 8,375,266,933 | 10,800,000,000 |
| GDP per Capita (US Dollars) | 822.22 | 759.53 | 767.62 | 869.61 |
| Trade Openness (% of GDP) | 57.11 | 69.61 | 80.45 | 92.91 |
| Net FDI inflows (% of GDP) | 1.93 | 3.48 | 4.36 | 6.15 |
| Population | 8,758,314.00 | 9,744,202.80 | 10,909,675.60 | 12,424,856.00 |
| Primary School Enrolment (%) | 20.17 | 25.7 | 28.49 | 33.06 |

**Table A.8. Means of selected macro-economic and socio-economic indicators over time intervals (2001-2020): Guinea-Bissau**

|  | [2001-2005] | [2006-2010] | [2011-2015] | [2016-2020] |
|---|---|---|---|---|
| GDP Growth Rate (%) | 1.76 | 3.35 | 3.35 | 3.11 |
| GDP (US Dollars) | 906,140,877 | 925,514,811 | 1,014,008,640 | 1,133,573,953 |
| GDP per Capita (US Dollars) | 706.31 | 639.12 | 615.58 | 605.23 |
| Trade Openness (% of GDP) | 43.73 | 50.29 | 50.65 | 54.74 |
| Net FDI inflows (% of GDP) | 0.73 | 2.37 | 1.87 | 3.39 |
| Population | 1,284,655.80 | 1,448,517.20 | 1,649,175.20 | 1,874,759.80 |
| Primary School Enrolment (%) | n/a | 27.69 | n/a | n/a |

**Table A.9. Means of selected macro-economic and socio-economic indicators over time intervals (2001-2020): Liberia**

|  | [2001-2005] | [2006-2010] | [2011-2015] | [2016-2020] |
|---|---|---|---|---|
| GDP Growth Rate (%) | -3.11 | 7.23 | 5.11 | -0.68 |
| GDP (US Dollars) | 2,467,914,434.00 | 2,498,864,520.00 | 3,155,648,141.00 | 3,058,107,841.00 |
| GDP per Capita (US Dollars) | 804.93 | 691.81 | 743.11 | 635.86 |
| Trade Openness (% of GDP) | n/a | n/a | n/a | n/a |
| Net FDI inflows (% of GDP) | 13.62 | 29.24 | 51.08 | 4.92 |
| Population | 3,081,895.60 | 3,608,894.20 | 4,246,636.40 | 4,820,607.80 |
| Primary School Enrolment (%) | n/a | 33.16 | 33.61 | 48.41 |

**Table A.10. Means of selected macro-economic and socio-economic indicators over time intervals (2001-2020): Mali**

|  | [2001-2005] | [2006-2010] | [2011-2015] | [2016-2020] |
|---|---|---|---|---|
| GDP Growth Rate (%) | 7.14 | 4.61 | 3.59 | 3.88 |
| GDP (US Dollars) | 10,000,000,000.00 | 11,200,000,000.00 | 12,300,000,000.00 | 14,400,000,000.00 |
| GDP per Capita (US Dollars) | 834.50 | 793.64 | 745.29 | 754.22 |
| Trade Openness (% of GDP) | 57.22 | 57.92 | 60.43 | 62.1 |
| Net FDI inflows (% of GDP) | 2.27 | 3.44 | 2.58 | 3.02 |
| Population | 12,003,154.40 | 14,119,838.00 | 16,463,384.80 | 19,092,897.80 |
| Primary School Enrolment (%) | 35.90 | 39.09 | 37.52 | 41.39 |

**Table A.11. Means of selected macro-economic and socio-economic indicators over time intervals (2001-2020): Niger**

|  | [2001-2005] | [2006-2010] | [2011-2015] | [2016-2020] |
|---|---|---|---|---|
| GDP Growth Rate (%) | 4.41 | 5.47 | 5.85 | 5.49 |
| GDP (US Dollars) | 6,532,766,371.00 | 7,296,354,537.00 | 8,920,192,366.00 | 10,900,000,000.00 |
| GDP per Capita (US Dollars) | 516.78 | 477.68 | 481.07 | 485.51 |
| Trade Openness (% of GDP) | 34.51 | 42.64 | 46.42 | 37.61 |
| Net FDI inflows (% of GDP) | 0.71 | 5.04 | 8.23 | 3.51 |
| Population | 12,667,944.60 | 15,277,488.40 | 18,531,222.20 | 22,470,272.60 |
| Primary School Enrolment (%) | 3.98 | 3.93 | 3.49 | 3.53 |

**Table A.12. Means of selected macro-economic and socio-economic indicators over time intervals (2001-2020): Nigeria**

|  | [2001-2005] | [2006-2010] | [2011-2015] | [2016-2020] |
|---|---|---|---|---|
| GDP Growth Rate (%) | 8.86 | 7.09 | 5.03 | 0.31 |
| GDP (US Dollars) | 292,000,000,000.0 | 369,000,000,000.0 | 458,000,000,000.0 | 467,000,000,000.0 |
| GDP per Capita (US Dollars) | 2,204.91 | 2,449.42 | 2,663.13 | 2,385.47 |
| Trade Openness (% of GDP) | 40.80 | 40.42 | 36.22 | 27.9 |
| Net FDI inflows (% of GDP) | 1.94 | 2.25 | 1.26 | 0.85 |
| Population | 132,015,238.60 | 150,395,208.00 | 171,868,417.40 | 195,962,273.20 |
| Primary School Enrolment (%) | n/a. | 6.03 | 14.72 | 16.2 |

**Table A.13. Means of selected macro-economic and socio-economic indicators over time intervals (2001-2020): Senegal**

| | [2001-2005] | [2006-2010] | [2011-2015] | [2016-2020] |
|---|---|---|---|---|
| GDP Growth Rate (%) | 3.79 | 3 | 4.07 | 5.17 |
| GDP (US Dollars) | 14,600,000,000.00 | 15,300,000,000.00 | 16,500,000,000.00 | 20,200,000,000.00 |
| GDP per Capita (US Dollars) | 1,382.22 | 1,274.39 | 1,198.10 | 1,272.31 |
| Trade Openness (% of GDP) | 52.45 | 56.19 | 59.35 | 58.51 |
| Net FDI inflows (% of GDP) | 1.15 | 2.29 | 1.89 | 4.48 |
| Population | 10,552,295.00 | 12,017,457.00 | 13,794,284.60 | 15,861,496.80 |
| Primary School Enrolment (%) | 11.18 | 13.1 | 14.33 | 17.07 |

**Table A.14. Means of selected macro-economic and socio-economic indicators over time intervals (2001-2020): Sierra Leone**

| | [2001-2005] | [2006-2010] | [2011-2015] | [2016-2020] |
|---|---|---|---|---|
| GDP Growth Rate (%) | 8.10 | 5.24 | 5.23 | 3.4 |
| GDP (US Dollars) | 2,891,639,572.00 | 3,492,906,469.00 | 4,621,742,865.00 | 4,569,050,459.00 |
| GDP per Capita (US Dollars) | 554.48 | 569.66 | 672.74 | 597.39 |
| Trade Openness (% of GDP) | 42.44 | 42.83 | 82.29 | 63.67 |
| Net FDI inflows (% of GDP) | 2.41 | 4.68 | 14.7 | 9.65 |
| Population | 5,200,107.40 | 6,128,170.20 | 6,865,772.20 | 7,651,522.80 |
| Primary School Enrolment (%) | 1.69 | .n/a | 5.14 | 5.45 |

**Table A.15. Means of selected macro-economic and socio-economic indicators over time intervals (2001-2020): Togo**

|  | [2001-2005] | [2006-2010] | [2011-2015] | [2016-2020] |
|---|---|---|---|---|
| GDP Growth Rate (%) | 1.15 | 3.43 | 6.14 | 4.42 |
| GDP (US Dollars) | 3,343,809,579.00 | 3,163,469,456.00 | 3,842,304,062.00 | 4,590,950,618.00 |
| GDP per Capita (US Dollars) | 627.96 | 519.78 | 551.81 | 581.75 |
| Trade Openness (% of GDP) | 78.44 | 86.9 | 103.28 | 57.81 |
| Net FDI inflows (% of GDP) | 3.64 | 2.56 | 6.71 | 1.21 |
| Population | 5,333,930.60 | 6,087,834.40 | 6,957,125.20 | 7,891,723.80 |
| Primary School Enrolment (%) | 40.64 | 40.41 | 28.6 | 31.12 |