UNIVERSITY OF CAPE COAST

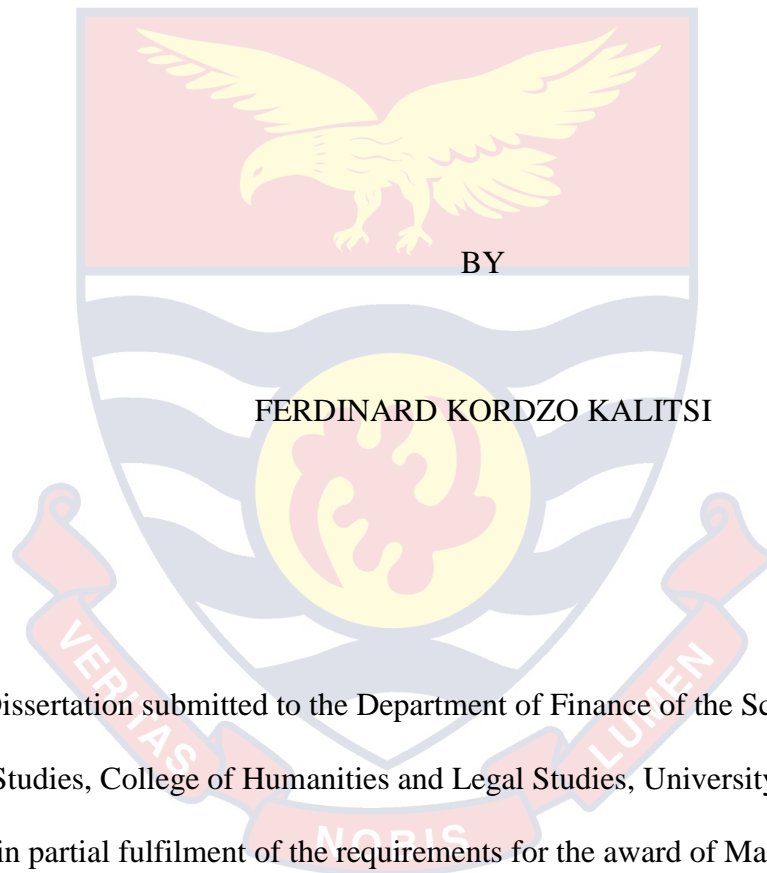TRADE OPENNESS AND FOREIGN DIRECT INVESTMENT IN AFRICA

FERDINARD KORDZO KALITSI

2020

UNIVERSITY OF CAPE COAST

TRADE OPENNESS AND FOREIGN DIRECT INVESTMENT IN AFRICA

BY

FERDINARD KORDZO KALITSI

Dissertation submitted to the Department of Finance of the School of Business

Studies, College of Humanities and Legal Studies, University of Cape Coast,

in partial fulfilment of the requirements for the award of Master of Business

Administration Degree in Finance.

OCTOBER 2020

DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's signature……………………   Date………………………

Name: Ferdinard Kordzo Kalitsi

Supervisors' Declaration

I hereby declare that the preparation and presentation of the dissertation was supervised in accordance with the guidelines on supervision of dissertation laid down by the University of Cape Coast

Supervisor's Signature: …………………   Date: ………………………

Name: Dr. Otuo Serebour Agyemang

ABSTRACT

It is a public knowledge that developing economies especially those in Africa are striving to attract FDI into their countries since it contributes immensely to economic growth. Nonetheless, the region has not seen the desired level of foreign investment anticipated to spur their growth even though governments have taken several measures and implemented policies aimed at attracting investors. Several factors have been found to be the determining factors of FDI around the world. To this effect, the study relied on the imperfect markets theory, eclectic paradigm and to determine the relationship between trade openness and FDI in 43 African countries over 18 years by employing Arellano and Bond's Generalized Method of Moments (GMM). Specifically, the study examined the relationship between tariffs and FDI as the first objective, regulatory trade barriers as the second objective and finally the relationship between black market exchange rates and FDI as the third objective. The study found that reducing tariffs, relaxing some of the regulatory trade barriers, ensuring official exchange rates in the region is tantamount to attracting foreign direct investment. The study recommends that African governments would take steps to reduce both tariffs and other non-tariff barriers to trade since this is a major impediment to FDI.

KEY WORDS

Black Market Exchange Rate

Foreign Direct Investment

Regulatory Barriers

Sub – Saharan Africa

Tarrifs

Trade Openness

ACKNOWLEDGEMENTS

I would like to express my profound gratitude to my supervisor, Dr. Otuo Serebour Agyemang of the Department of Finance in the University of Cape Coast, for his professional guidance, advice and motivation that has guided me through this work. I am very grateful. I wish to further thank my family for their support. Recognition is given to all the academic facilitators who taught me during the master's program.
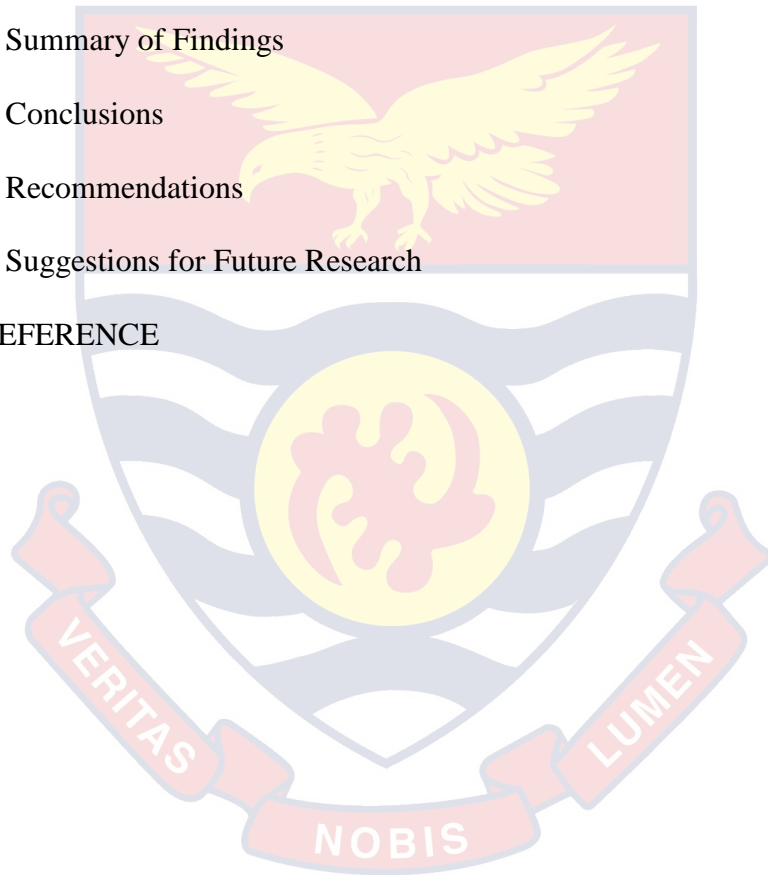
DEDICATION

To My Wife and Children

TABLE OF CONTENTS

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND

RECOMMENDATIONS

LIST OF TABLES

x

LIST OF FIGURE

LIST OF ACRONYMS

FDIGDP   Foreign Direct Investment Inflows

GCFGDP   Gross Capital Formation

INFL   Inflation

INST   Institutional Quality

RegTB   Regulatory Trade Barriers,

SSA   sub-Saharan Africa

TO   Trade Openness

CHAPTER ONE

INTRODUCTION

Introduction

Foreign Direct Investment (FDI) is very essential to every economy. Although Sub-Saharan African (SSA) governments have undertaken several trade reforms over the last few decades FDI in SSA still remains much lower as compared to other regions (IMF, 2016). This study employs new measures of trade openness to assess the relationship between trade openness and FDI in SSA. This will be an important contribution to the extant literature on FDI, trade openness and institutional in SSA.

Background to the Study

Foreign direct investment (FDI) represents investment in real assets in foreign countries that can be used to conduct business operations. FDI contributes directly to the productive capacity of the recipient economy and literature has documented several benefits of FDI to the recipient country. These include job creation, enhanced productivity and efficiency, human capital development, transfer of ideas and technology, foreign exchange gains, global integration, economic growth among others (Agyemang, 2018; Agyemang, Gbettey, Gatsi & Acquah, 2019; Banerjee, Oriani & Peruffo, 2019). Due to the unending benefits FDI brings to the recipient economy, countries battle among themselves to attract FDI and governments go all out to pursue and implement policies aimed at attracting FDI.

The relevance of foreign direct investment (FDI) inflows to economic activities, especially, in developing economies, cannot be overestimated. It is observed that the motivation for most developing countries to increase efforts

1

aimed at attracting more FDI emanates from the fact that FDI contributes to economic activities. Some of the channels through which FDI contributes to economic activities include technology transfers, transfer of new processes, managerial skills and employee training. Paus and Gallagher (2008) explained that at the macro level, gains from FDI are manifested through increases in investment, employment, foreign exchange, and tax revenues.

Again, FDI often aids the integration of host countries into the global economy because when foreign firms set up subsidiaries in host economies, they still employ their global sales and supply networks to export their goods and services (Paus & Gallagher, 2008). Furthermore, FDI might directly affect infrastructure and business environment as host countries seeking to attract foreign investment tend to put structures and policies in place to improve infrastructures and business environment. At the macro level also, FDI will lead to high production efficiency, high productivity and eventually lower price as a result of foreign entry (OECD, 2012).

FDI is also beneficial to the host country at the microeconomic level. For instance, in situations where foreign entrants make use of host countries intermediaries, there will be high demand for local suppliers and distributors, which will in turn raise their output, profits, and possibly investments and labor demand (Alfaro, Kalemli-Ozcan, & Sayek, 2009). Also, FDI can enable firms which use output of foreign firms as inputs to access cheaper, higher quality, and more reliable inputs.

Even though FDI is one of the main driving forces of the economies of developing countries like sub-Saharan Africa (Khalifah, & Adam, 2009), available data from the World Bank depicts that FDI inflows, and for that

2

matter its contribution to growth of sub-Saharan economies, have not been favorable over the years.
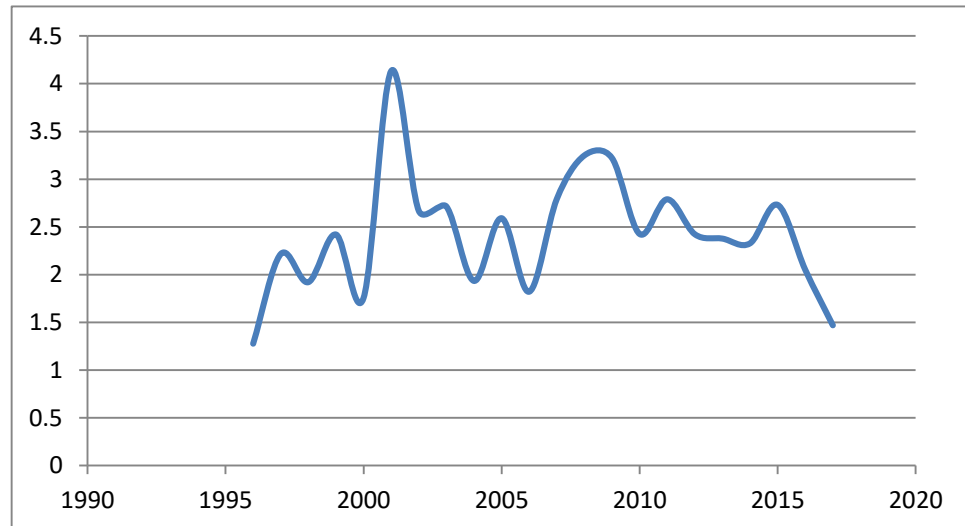
Figure 1: Trend analysis of FDI inflows to SSA economies for 1996 - 2017

Source: Constructed from World Development Indicators Dataset

Figure 1 depicts that FDI inflows (as a percentage of GDP) to sub-Saharan economies have generally showed an upward trend. Following the potential benefits that can be derived from FDI inflows, there are a number of theories that explains the factors that are necessary to attract FDI inflows. The situation in SSA economies calls for further empirical studies because foreign direct investment (FDI) remains one of the most important forms of cross-border capital flow in Sub-Saharan African (UNCTAD, 2018).

In recent times, liberalisation of trade regimes has been on the rampage with countries, sub regions and continents entering into various bilateral agreements to enhance trade within their borders. Majority of these efforts is targeted towards creating an enabling and conducive business environment for investors. Openness to trade has been identified as a major determinant of FDI

3

in some parts of the world (Anyanwu, 2012) and since Africa has undertaken several trade liberalisation agreements, it would not be far-fetched to investigate whether these policies have yielded results in terms of aiding to attract FDI into the continent.

Statement of the Problem

The FDI inflows to Africa declined by 21% in 2017 from the previous year (2016) and this was mainly due to the persistent effects from the commodity bust as FDI inflows contracted in commodity-exporting economies such as Egypt, Mozambique, the Congo, Nigeria and Angola (UNCTAD, 2018). Thus UNCTAD (2018) suggested that the way forward to avoid further decline is to advance interregional cooperation through the signing of the African Continental Free Trade Area, which will lead to commodity price recovery and finally encourage better FDI flows to SSA countries. Following this suggestion, it is imperative to examine how liberalized trade policies in the continent will spur up FDI inflows to the continent. That is, liberalizing trade policies in an economy could improve access to markets would allow countries to exploit their comparative advantages on a larger scale (Sally, 2015), which then may results in commodity price recovery.

Several studies have advanced the importance of trade openness to attracting FDI flows to host economies. Specifically for African economies, Anyanwu (2012) found that one of the reasons why FDI inflows come to Africa is because of Trade openness. Also Druppers (2017) found that increased trade openness, measured by trade intensity and specific policies, is a key determinant in the attraction of FDI in SSA region. Owusu-Antwi,

4

Antwi and Poku (2013) argued trade openness to be one of the main drivers of FDI to Ghana.

Trade openness continues to increase in most African countries because international financial institutions like the International Monetary Fund and the World Bank grant assistance to developing countries based on the condition of greater trade openness of such countries (Zahonogo, 2018). This means that, over the past few years, most African economies have pursued trade liberalization in order to attract assistance (which could be in the form of FDI inflows) from international financial institutions. Notwithstanding, the FDI inflows in Africa continues to decline (UNCTAD, 2018). Perhaps, the high level of trade openness in several African economies is largely due to the volume of trade and not the extent to which governance policies restricts or invites international trade.

David (2008) argued that the sum of total trade as a ratio of GDP is primarily used as a proxy for trade openness because of the fact that data is readily available for many countries, but such a measure may suffer from country bias because it is largely affected by the geographical location and the size of the domestic market of host economy (Nunnenkamp, 2002). Although several alternative measures of trade openness have been proposed by the extant literature to examine the relationship between trade openness and FDI, the trade freedom indicators developed by the Fraser Institute (2018) is yet to be employed. This study intends to fill this gap by examining how the trade freedom indicators, which will be proxy for trade openness in this study, affect FDI inflows to African economies. Thus the motivation behind this study is that, given the argument that the ratio of trade to GDP is not an adequate

5

measure of trade openness, concentrating on the other measures that have been employed in literature review tend to present an incomplete view of how trade openness affect FDI inflows.

Purpose of the Study

The purpose of the Study is to examine how trade openness affect Foreign Direct Investment inflows to African economies.

Research Objectives

Specifically, the study will:

1. Examine the relationship between tariffs and FDI inflows to African economies

2. Assess the relationship between Regulatory trade barriers and FDI inflows to African economies

3. Investigate the relationship between Black-market exchange rates and FDI inflows to African economies

Research Hypothesis

Ho: There is no significant relationship between tariffs and FDI inflows to African economies

Ho: There is no significant relationship between Regulatory trade barriers and FDI inflows to African economies

Ho: There is no significant relationship between Black-market exchange rates and FDI to African economies

Significance of the Study

This research examines how trade openness helps to attract foreign direct investment into African economies, highlighting both the empirical and social importance. Empirically, this study will contribute to existing literature

6

on the relationship between trade openness and foreign direct investment in African economies because trade openness as measured by tariffs, regulatory trade barriers and black market exchange rates provides new dimensions to the argument and departs from the traditional measures of trade openness. In terms of its social relevance, this study will encourage governments and policy makers in Africa to formulate policies and enhance their institutional structures so as to rake in more foreign direct inflows which can in the long run promote economic development.

Delimitations

The data set consists of a panel observation for 48 African countries. Foreign direct investment was the primary dependent variable and the independent variable was trade openness; sub divided into tariffs, regulatory trade barriers and the black market exchange rate. FDI is measured as FDI inflows into the respective countries as a percentage of GDP while the measures of trade openness were obtained from the Fraser Institute's index on freedom to trade internationally. The average of revenue from trade taxes, mean tariff rate and standard deviation of tariff rates form the tariff variable whereas regulatory trade barriers was made up of both non-tariff trade barriers and the compliance costs of importing and exporting, and the black market exchange rate Institutional quality, gross capital formation and inflation were also included as control variables. The sample period for the data set spans from 2000 to 2017. The study used the generalised method of moments (GMM) estimation technique.

Limitations

This study is limited to only African countries with a short sample period of only eighteen (18) years. Basing any decision on this limited period may lead to a misleading conclusion for future decision making. Moreover, this study used proxies to measure some variables. Using different proxies may provide dissimilar results for the same variable. The study assumes that African countries are similar in characteristics, however these countries vary in terms of the level of development. Again, differences in the quality of variables in the countries under study also accounts for an imbalance in the data collated. Finally, differences in the institutional frameworks and regulations among these countries were not considered. The effects of other measures of FDI were also not considered.

Definition of Terms

Foreign Direct Investment

Foreign direct investment (FDI) is defined as an investment involving a long-term relationship and reflecting a lasting interest and control by a resident entity in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor (FDI enterprise or affiliate enterprise or foreign affiliate). FDI implies that the investor exerts a significant degree of influence on the management of the enterprise resident in the other economy (OECD, 2012). Such investment involves both the initial transaction between the two entities and all subsequent transactions between them and among foreign affiliates, both incorporated and unincorporated. FDI may be undertaken by individuals as well as business entities (Madura, 2012; OECD, 2012).

8

Organization of the study

This study is made up of five chapters. Chapter one introduces the study with specifications on areas such as the background to the study, statement of the problem, the purpose of the study, objectives of the study, research hypothesis, significance of the study, delimitations, limitations and the organization of the study. In Chapter two, existing literature is reviewed, providing the theoretical and empirical grounds for the study.

Chapter three talks about the research methods employed. It includes the research design, sources of data, measurement of variables, data processing and analysis and a chapter summary. Descriptive statistics, correlation analysis, regression results, a thorough discussion of the hypotheses stated and a chapter summary are highlighted in chapter four. Chapter five also presents the summary, conclusions, recommendations and suggestions for future research.

Chapter Summary

This chapter introduces the study and presents the background to the study, statement of the problem, purpose of the study, research questions and hypothesis, scope of the study, limitation of the study, definition of terms and ends with organisation of the study.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter will focus on the review of previous studies on trade openness and foreign direct investment, hereafter FDI. The chapter will begin with the theoretical review which will explain the theoretical justification of this study and proceed with the review of relevant empirical literature and evidence relating to trade openness and FDI in Africa. The empirical review will also be in the order of the research objectives. The chapter finally closes with a summary.

Theoretical Review

Theory of Comparative Advantage

This is one of the oldest theories of international trade attributed to English economist David Ricardo in 1817. The theory of comparative advantage explains why some countries specialize in the production of certain goods and engage in international trade with other countries. Certain countries, like the United States and Japan, have technological advantage, while some other countries, like China, Jamaica and Malaysia, have advantages in labour costs (Madura, 2011). Unfortunately, these advantages cannot be transported easily so countries tend to use their advantages to concentrate on goods that they can produce with relative efficiency.

With this specialization in some goods and services, a country will not need to produce other goods that can be produced at a cheaper cost elsewhere. This makes trade between economies very essential as it allows countries to specialize in those goods they can manufacture with relative efficiency and

10

import those that are produced by other countries at a relatively cheaper cost and efficiency. International trade and the comparative advantages allow corporations to penetrate foreign markets.

The Imperfect Markets Theory

This theory is attributed to Hymer (1976). Nations are endowed with different types of resources and if markets were perfect, factors of production could be moved freely across countries. However, the real world is characterized by imperfect market situations where factors of production are to some extent immobile. The transfer of labour and some other factors of production are restricted and comes with cost. Bearing in mind the imperfect market conditions, multinational companies take advantage of the availability cost advantages associated with factors of production in other countries. Imperfect markets offer motivation to businesses to search for and exploit opportunities available in foreign countries through trade openness.

The Heckscher-Ohlin Theory

This theory is an expansion of the idea of Swedish economist Eli Filip Heckscher by another Swede and noble laurete, Bertil Ohlin in his famous book, *Interregional and International Trade* (1933). The Heckscher-Ohlin theory describes the flow of trade as measured by the relative endowments of countries in terms of capital and labour. A country is likely to have a comparative cost advantage as it produces goods that require more of its factors of production that are in relative abundance. The Heckscher-Ohlin theory explains that assuming two countries manufacture two goods employing capital and labour as factors of production, each country will export the product that maximises the use of the most abundant factor. That is

11

to say, economies with more labour that is inexpensive are better off to produce and export goods that require substantial volumes of labour while those with more capital will produce and export capital intensive goods.

The Eclectic Theory

The eclectic theory of investment, propounded by Dunning in 1977 and revisited in 2000, provides the theoretical framework and justification for the reasons why investors will prefer to invest in some countries and not the others. It is one of the most popular theories that explains the determinants of FDI to various economies. Dunning (2000) explained the theory to give three main reasons or determinants of FDI. These are ownership, location and internalisation. This framework is also popularly known as the OLI Paradigm.

Ownership explains the motivational factors that drives FDI in terms of the firms involved. There are some peculiar advantages and competences that are specific to certain firms that enable them succeed in other countries. These advantages include special competences that give the MNC a world-wide image, the ability to control their foreign subsidiaries, their technological advantages and their modus operandi which sets them as benchmarks for their respective industries (Bankole & Adewuyi, 2013). These advantages create positive effects for the MNC in areas such as technological spill-over, managerial competence and access to cheaper credit.

Location in this framework was defined by Dunning (2000) as the locational advantages one environment has over the other. He gave examples of such advantages to include; international communication and transportation cost, human capital, natural resources, cost of inputs, trade barriers, ready markets, political factors, economic system, favourable investment policies,

12

language and culture among others (Na & Lightfoot, 2006). These factors, according to Bankole and Adewuyi (2013), are referred to as demand or pull factors. The argument is that multinational companies would like to invest directly in some countries if they would be able to gain certain advantages that are not available in other host economies.

Finally, the Internationalisation aspect looks at why firms would prefer to own subsidiaries and affiliates in other countries rather than selling out licences or franchises to other firms in the domestic economy. These are the grander commercial opportunities accruing to firms as a result of taking advantage of the ownership and locational advantages by investing in their own subsidiaries and affiliates, than through authorizing unrelated firms to trade with their licences, patents and technology (Wheeler & Mody, 1992; Seetanah & Rojid, 2011; Bankole & Adewuyi, 2013).

Other scholars have also looked at other theoretical explanations to back the flow of FDI into other regions. These include Ohlin's economic theory on international trade (Ohlin, 1933), the theory of international operations of national firms (Hymer, 1960), the transaction cost internalization theory (Buckley & Casson, 1985), strategic behaviour of firms (Graham, 2000) among others. These theories have helped our understanding of the flow of FDI and are of much significance to this study as well even though beyond the scope of this study.

Application of Theories to Study

The theoretical framework established by the comparative advantage theory and the imperfect markets theory provide a historical background on how international trade evolved and the need for countries to engage in trade

with other countries. The theories revealed that trade between countries are necessitated by the fact that some countries are endowed with resources that gives them the advantage to produce certain commodities at a relatively cheaper cost and more efficiency than others. Again, due to the imperfect nature of markets, economies will have to engage in export and imports to supply the excess of their resources to those who will need them while they also meet their demand for those they lack (Gouvea & Hranaiova, 2002).

Trade openness takes its roots from these theories and the onus lies on the respective nations to decide on the extent to which their shores will be open to international trade to harness the benefits international trade offers bearing in mind the risk involved. External trade creates a huge pool of opportunities for business establishment and expansion through a range of conduits, including the reduction of wealth misallocation, transfer and development of new technologies, employment opportunities and economic growth in the long run (Jurn & Park, 2002).

FDI is a vital component for successful growth and development in emerging economies partly due to the speedy and effective allocation and adoption of best practices from other economies and regions. (Klein, Aaron, Hadjimichael & 2001). But what determines the level of FDI into certain countries and not the others? The eclectic theory provides the theoretical justification for the movement of capital flow in its popular OLI framework. The investors will always prefer to choose a location that is more lucrative than other locations. Many reasons or factors have also been cited to be the determinants of FDI. This theory is therefore relevant to this study as it will help us to expand the basis and preposition of the theory to look further at how

14

trade openness particularly affects the movement of FDI into Africa and its policy implications.

Empirical Review

Foreign Direct Investment in Africa

Any process of expanding transnational trade that necessitates a direct investment in foreign ventures is considered to be a foreign direct investment (Madura, 2012). FDI is very key to the economy because it provides the needed resources for investment. More so, FDI is presumed to help less develop nations in terms of job creation, technology and knowledge transfer, competence and managerial skills (Druppers, 2017). FDI is commonly considered as a consolidation of capital, technological know-how, promotion, marketing and management skills (Cheng & Kwan, 2000).

In 2018, FDI flows to Africa rose by\$ 46billion in 2018, defying the global downward trend. This represents an 11 per cent growth on the back of successive drops in 2016 and 2017. Even though some powerhouse economies like Nigeria, Ethiopia and Egypt saw a slump in FDI inflows, these were compensated by the growth in capital flows to other economies, with South Africa leading the front. The world investment report (2019) by the UNCTAD cites the increasing demand for and prices of some commodities, as well as some steady non-resource-seeking investments in a few countries as the main causes of the increase in capital flows to SSA.

More specifically, FDI inflows to North Africa grew by 7 per cent to \$14 billion, due to prominent investments in the sub region with Morocco, Tunisia, Algeria and Sudan being the major players even though inflows to Egypt significantly fell by 8 per cent to \$6.8 billion. West Africa also saw a

15

decrease in capital flows to the sub region by 15%, a record low since 2006. This is mainly attributable to the investment crises in Nigeria as they lost their position to Ghana as the largest recipient of FDI in West Africa. East Africa on a whole had a relatively stable investment climate in 2019 while that of central Africa remained unchanged in 2018, with Southern Africa picking up from -$925 million in 2017 to $4.2 billion in 2018 (WIR, 2019).

Ang (2008) also found GDP growth rate, infrastructural development, market size, corporate tax rate, trade openness and microeconomic uncertainty to be the main determinants of FDI in Malaysia.

Trade Openness

Trade Openness is a measure of a countries economic policies that either restrict or invite trade between countries. It measures how open a country's doors are to international trade and the policies that affect it. According to Kumari and Sharma (2017) trade openness is very vital in determining the amount of trade an economy will have with other economies and has other important implications for the domestic markets. Many economists agree that trade openness can impact FDI movements because if there are policies that enhance trade among countries, it creates foreign markets and opportunities for the flow of funds between these countries. Trade openness is particularly important to developing economies for reasons such as transfer of technology and ideas, increased competition, availability of purchasing alternatives, economies of scale and ultimately economic growth (Lippoldt, 2010; Druppers, 2017).

16

Tariffs and FDI

A tariff is, in simple terms, a tax levied by a government on products imported from other economies. Tariffs tend to increase the price of such goods and services and make imports less desirable and competitive, relative to local products. It can be fixed or variable depending on the country's policies. A tariff may be imposed to raise revenue, protect infant industries, restrict trade or as a retaliatory policy. Tariffs have generally been found to have restricting effects on trade and thereby inhibiting foreign investment. Due to this, recipient countries that seek to attract more foreign investment could distinguish themselves from others by the lowering of tariffs on goods and the removal of trade restrictions to attract more FDI (Druppers, 2017).

On the determinants of FDI in Eastern and Central Europe, Carstensen and Toubal (2003) used a dynamic panel estimation model on a GMM estimator and found tariffs to be inversely related to FDI in those regions. Specifically, they concluded that a percentage point decrease in tariffs is likely to lead to a $20million increase in FDI in the short run and a $30million rise in foreign investments in the long run. Bustos (2011) found similar results that tariff reductions in Argentina led to an increased investment in technological upgrades of both products and processes.

Du, Harrison and Jefferson (2011) also examined which trade policies affect industrialization and FDI in China across 1998 – 2007. Their findings suggest that China had positive gains from vertical FDI spillovers as a result of tariff reductions and her entry into the World Trade Organisation (WTO) over this period. Wang and Swain (1995) also employed the tariff rate as a proxy of the openness of the recipient economy. They found the effect to be

17

insignificant even though the estimated coefficient was positive expected. Similar results is also reported by Bajo-Rubio and Sosvilla-Rivero (1994) who also found tariffs to play a significant role on FDI.

Some other studies such as Amiti and Konings (2007), Nataraj (2011), and Topalova and Khandelwal (2011) also differentiated between input tariffs and output tariffs to examine which has a greater impact on productivity and FDI. They all agree that tariff reductions on both input and final goods have positive impacts on productivity and attracts foreign investments in various forms, however the gains from input tariffs reduction much outweighs those from the reduction of tariffs on final goods.

Regulatory Trade Barriers and FDI

Regulatory trade barriers are government regulations in any form that hampers foreign corporations from investing locally. These policies prohibits FDI or limits FDI to a maximum quantity (De Souza, Goh, Gupta & Lei, 2007). Regulatory trade barriers can be either discriminatory or non-discriminatory. The former affects only foreign firms and treats foreign investors less favourably relative to domestic firms while the latter is only applicable to both foreign and domestic firms. Regulatory trade barriers are imposed for several varying reasons dependent on the motives of the respective countries. They can act to reduce competition in some sectors of the economy and "reduce market efficiency" in some areas. Nonetheless, government-imposed regulations that barricade trade and inhibit competition are sometimes formulated to help meet a particular social objective (Hollweg & Wong, 2009).

In a related study to investigate the impact of regulatory trade barriers on FDI and trade in the services industry in the European Union (EU), Kox and Lejour (2006) opined that regulatory policies in themselves obstruct free flow of services from other countries but more importantly, due to the heterogeneity of such regulations in other EU countries, the costs associated with operating foreign subsidiaries is even higher, impacting negatively on foreign investments. They explained that as a pre-requisite to operating in such countries, the investor has to incur some fixed costs to meet the regulatory qualifications and standards. These costs are prohibitive to trade in one breadth but these foreign investors could be compensated by the economies of scale they could have enjoyed if these regulatory requirements cut across the EU. However, regulatory requirements are different and for that matter, investors would have to incur additional fixed costs to expand into other markets.

Asiedu (2002) recommends that liberalizing trade regimes and removal of trade barriers in SSA is an important step to increase FDI in the region. Moore (1993) used the trade-weighted ad valorem tariff rate to measure the strength of regulatory barriers but found little evidence of its significance. Hooker and Caswell (1996) also found the regulatory practices such as trademark laws and patent protection rights in host countries to be important factors for determining FDI levels.

Cole, Elliott and Fredriksson (2006) concluded that the effects of environmental regulatory policies on foreign direct investment are dependent on the level of corruptibility of political actors in the host economy since both foreign and domestic firms lobby for favourable environmental regulations.

19

They warn that the negative impacts of FDI should be treated more seriously with stringent regulatory policies since foreign firms tend to locate more frequently in countries with weaker regulatory regimes.

Hollweg and Wong (2009) examined the impact of regulatory trade barriers in the logistics industry for ASEAN countries from 2006 to 2008. The aim of the study was to use a regulatory index developed for the entire logistics sector in all 16 ASEAN countries to assess the impact of trade restrictiveness on trade openness and FDI in those countries. Their results suggested that customs regulations pose the greatest form of restrictions on trade in the logistics sector, obstructing trade and negatively impacting FDI. They also found evidence that regulatory restrictiveness in the logistics sector has a negative relationship with the sector's performance and this sends negative signals to foreign investors into the sector.

From the foregoing, regulatory trade barriers could be expected to have a negative relationship with foreign direct investment in the current study.

Black-Market Exchange Rates and FDI

A black market is any market that occurs outside officially approved mediums. People mostly transact in such markets to dodge taxes and other price controls since such markets are unregulated. Black markets are sometimes referred to as shadow economy, illegal economy or even underground economies. Jayaratnam (2003) defined black market exchange rate as the price of a foreign currency (exchange rate) in the unofficial currency market. A number of factors give rise to the black market and these include overregulation, high unemployment, shortages and licensure regimes. The black market exists to correct some failures caused by the official market

20

and to play the duty of clearing transactions in an economy Jayaratnam (2003) however, there is scant literature on the black market exchange rates and FDI relationship with inconclusive findings.

Kyereboah-Coleman and Agyire-Tettey (2008) employed both the autoregressive conditional heteroskedasticity (ARCH) and the generalised autoregressive conditional heteroskedasticity (GARCH), coupled with a time series data spanning over 30 years to examine the impact of real exchange rate volatility on FDI in developing countries. They revealed that an exchange rate fluctuation adds to the riskiness of foreign and international transactions and that exchange rate volatility is negatively related to FDI.

Using both the black market rates and the official exchange rates as a measure of exchange rate volatility, Alaba (2003) explained exchange rate behaviour and its effect on FDI and economic growth in Nigeria. He also found that the black market rates are more significant in determining economic activities in the Nigerian economy and that concluding that exchange rate movement and volatility negatively impacts FDI into the manufacturing sector while ironically attracting foreign investment into the agricultural sector.

Siddiki (2000) also suggest that trade liberalisations and the low levels of official foreign exchange reserves tend to increase the likelihood of black market rates being used to engage in international transactions. Jayaratnam (2003) found evidence to suggest that the black market exchange rate is not significant in determining FDI inflows and for that matter, liberalising currency regimes is not of much value in attracting FDI.

Osinubi and Amaghionyeodiwe (2009) also employed a combination of the OLS and error correction model on a 1970 to 2004 time series data to test the impact of exchange rate volatility on FDI in Nigeria. Their results suggest that foreign investors need not be wary of the fluctuations in the exchange rate and also suggested that depreciation of the Nigerian Naira would attract more foreign investor since the two are significant and positively related.

However, Nyarko, Nketsiah-Amponsah and Banor (2011) found the exchange rate regime practiced in Ghana to be insignificant in attracting FDI into Ghana and at best, suggested a weak relationship. They agreed that using the black-market rates could have produced a more reflective results but owing to the unavailability of the data, they included black exchange rates only as a dummy in their study.

Trade Openness and FDI

The relationship between trade openness and FDI in general terms have received some attention in recent times and a number of studies have found trade openness to be positively correlated with FDI inflows into developing economies (Onyeiwu & Shrestha, 2004; Asiedu, 2002; Hoang & Goujon, 2014).

On the relationship between trade openness and FDI, Asiedu (2002) examined 70 developing countries (35 being SSA countries) across 1988-1997 using an OLS estimation technique. He found that policies that open up an economy to trade are important drivers of FDI to developing economies even though those outside SSA tend to benefit more from such policies since SSA countries are perceived to be more risky.

Employing the ratio of trade to GDP as a measure of trade openness, Hufbauer, Lakdawalla and Malani (1994) examined the relationship between FDI and trade openness for the UNCTAD. Using a time series data spanning 1960 to 2005, Ang (2008) found empirical evidence to suggest that Trade openness is highly significant in terms of its contribution to FDI inflows and concluded that liberalizing trade policies is advantageous for foreign investment.

Again, Asiedu (2006) recommends that countries that target increasing FDI inflow into their economies should increase their trade volumes. Yang, Groenewold and Tcha (2000) however suggest that openness to trade is only a substitute to FDI such that FDI rises only when there is a fall in trade openness. This is contradictory to earlier findings.

Chapter Summary

This section focused on the review of theoretical justifications and empirical studies on trade and foreign direct investment. The theory of comparative advantage, imperfect markets theory, Heckscher-Ohlin theory of trade and the eclectic theory of FDI provided the theoretical justifications for the study. Several empirical studies were also reviewed thoroughly to know the current trend and position of the variables in relation to FDI. These were done in relation to the objectives of the study.

CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter describes the methods and procedures that were employed to investigate the relationships between trade openness and foreign direct investment in Africa. This chapter will therefore help to ensure that the evidence collected enables it to answer questions or test theories as unambiguously as possible. The chapter entails the research design, research approach, data collection technique, model specification and justification, estimation technique, measurement of data and the chapter summary.

Research Design and Approach

Research design can be described as a set of advanced decisions that make up the master plan specifying the methods and procedures for collecting and analysing the needed information. It provides a framework for specifying the relationships among the study's variables (Cooper, Schindler & Pamela, 2014). A good research design should be flexible, adaptable, efficient, and economical. It should minimize bias and maximize accuracy of the data obtained and should have as few errors as possible. Research design can be exploratory, descriptive or explanatory (Saunders & Lewis, 2012). The study employed the explanatory research design. Explanatory research design investigates the cause and effect of one or a set of variables (independent) on another variable (dependent) in the theoretical model developed (Saunders & Lewis, 2012). Explanatory research design places importance on studying a situation to explain the relationships between variables. The study is grounded on the explanatory research design since it sought to examine the cause and

effect of trade openness and foreign direct investment inflows to countries in Africa.

The choice of a particular study design depends partly on the research approach (Creswell, 2014). According to Creswell (2014) and Saunders et al (2012), there are three main approaches to research. These are the qualitative approach, the quantitative approach and the mixed approach. Al – Hassan (2015) asserts that, if the nature of the study requires prediction of an outcome, identifying the influence of variables on a phenomenon, then the best research approach is quantitative approach. This study deployed the quantitative research approach which focuses on mathematical models, theories and hypotheses pertaining to the phenomena. This study employs quantitative research because it will use statistical calculations in its analysis for conclusions. It uses three hypotheses and computer tests to make its conclusions. This approach will help us to discover complex causal relationships and to determine to what extent one variable will influence another. Al – Hassan further explained that quantitative approach collects and presents data in quantitative form and subsequently subject the data to rigorous and formal quantitative analysis in a rigid fashion

Data Collection Procedures

Since the overarching objective of this study was to examine the relationship between trade openness and foreign direct investment in Africa, annual secondary data on FDI for the 43 countries in Africa were obtained from the World Development Indicators whilst Trade openness variables were obtained from the Fraser Institute's economic freedom dataset. The World Development Indicators is a World Bank database which is a credible source

25

with quality and highly standardised data, widely used by many researchers and scholars. The data spans from 2000 to 2017 due to availability for all indicators used in this study.

Model Specification

The primary aim of this study is to examine the relationship between trade openness and FDI inflows into Africa. Following the detailed review of theoretical and prior studies, the model below was specified to test the relationship between trade openness and FDI inflows

$$FDIGDP_{it} = \beta_0 + \beta_1 FDIGDP_{it-1} + \beta_2 Tariff_{it} + \beta_3 RegTB_{it}$$
$$+ \beta_4 BMEXCH_{it} + \beta_5 INST_{it} + \beta_6 GCFGDP_{it} + \beta_7 INFL_{it} + \mu_{it}$$

FDIGDP is foreign direct investment (% GDP)

Tariff represent tariffs on trade

RegTB denote regulatory trade barriers

BMEXCH represents the black market exchange rate

INST represents the institutional quality

GCFGDP is represents Gross Capital Formation (% of GDP)

INFL represents Inflation.

β denotes the coefficients

μ represents the error term

Subscript i and t represents the country and time respectively. In this case, i represents the cross-section dimension and t represents the time-series component.

Measurement of Variables

To ensure that the findings and conclusions of the study are generalizable, widely used measures for all the variables were chosen. For

instance, the dependent variable, foreign direct investment was measured by FDI inflows as a percentage of GDP and this data was sourced from the World Bank's world development indicators dataset. Trade openness, proxied by the freedom to trade internationally, was obtained from the Fraser Institute's economic freedom index. Tariffs is measured as the average of revenue from trade taxes as a percentage of the trade sector, mean tariff rate and the standard deviation of tariff rates. Regulatory trade barriers also comprise both non-tariff trade barriers and the compliance costs of imports and exports. The black market exchange rate is the unofficial exchange rate quoted in the market.

Regarding the control variables, institutional quality was measured by the average of the six institutional indicators developed by Kaufmann, Kraay and Mastruzzi (2011). These indicators are rule of law, control of corruption, voice and accountability, political stability, regulatory quality, and government effectiveness. Gross capital formation represents the gross expenditures for the acquisition of fixed assets in an economy and any changes in the stock levels held by firms over the year. This is measured as a percentage of GDP. Finally, inflation is measured as the percentage change in year on year consumer price index (CPI). Institutional quality indicators were obtained from the world governance indicators whereas those of gross capital formation and inflation were from the world development indicators.

The table below summarises the measurement of the variables, and their sources.

Table 1: Variables and Measurement

Variable	Measurement	Data source
Foreign direct investment inflows	Foreign direct investment inflows as a percentage of GDP	World Development Indicators 2000 to 2017
Tariffs	average of revenue from trade taxes, mean tariff rate and the standard deviation of tariff rates	Economic Freedom Index 2000 to 2017
Regulatory Trade Barriers	Non-tariff trade barriers and the compliance costs of imports and exports.	Economic Freedom Index 2000 to 2017
Black market exchange rate	Unofficial rates in the currency market	Economic Freedom Index 2000 to 2017
Institutional Quality	Simple average of the estimates of the six Worldwide Governance Indicators	Worldwide governance Indicators, 2000 to 2017
Gross Capital Formation (% GDP)	Gross Capital Formation (% GDP)	World Development Indicators 2000 to 2017
Inflation	% Change in CPI	World Development Indicators 2000 to 2017

Source: Authors Construct (2019)

Data Processing and Analysis

The data were processed using **Stata version 13.0** and the study employed Arellano and Bover (1995) and Blundell and Bond's (1998) dynamic panel Generalized Method of Moment (GMM) estimators in the estimation of the model because of the need to deal with simultaneity bias and

country-specific effect. By estimating the model using the dynamic panel data Generalized Method of Moment estimator, the model was transformed into first difference to do away with country-specific effect and the one-year lag of the independent variables have been employed as instruments to avoid simultaneity bias (Arellano & Bond, 1991).

There are two alternates of system Generalized Method of Moment estimator; the one-step estimators and the two-step estimators. The study employed the two-step estimators coupled with corrected standard errors because, theoretically; it is more efficient than on-step estimator. The system GMM is suitable for this study for two main reasons. First, the Generalized Method of Moment estimator takes control of endogeneity problems created by the independent variables.

Second, it is efficient if the study's time period is short (Roodman, 2006). To ensure that the estimation is consistent, the study applied the Arellano and Bond test of second order serial correlation with the disturbance term (Arellono & Bond, 1991). In addition, the potency of the instruments and whether the model is correctly specified would be based on the failure to reject the null of the Arellano and Bond test. Disturbance term, by structure, will perhaps be serially interrelated in the first order. Nevertheless, second level serial association is indicative of misspecification.

Chapter Summary

This chapter presented the research methods employed in conducting the study. The study is grounded on the positivist research paradigm and the quantitative research approach. The explanatory research design was adopted in this study as the objective seeks to examine the relationship between trade

29

openness and FDI inflows to African countries. Added to the above, the study sampled 48 countries in Africa as the units of analysis and a model was developed a model based on the objectives of the study and the study variables. This model examined the relationship between openness to trade and FDI inflows in Africa, Finally, the GMM estimation technique was deployed to estimate the model as it controls for endogeneity.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

Introduction

This chapter presents the discussions and empirical analysis of the results obtained from the statistical tests. The chapter begins with the descriptive statistics on the various variables under study to give an overview of the distribution followed by a correlation matrix that is being used to measure the level of association between the variables. Finally, the discussions on the various models estimated in the study would be presented and discussed in this chapter.

Descriptive statistics of the data

Table 2 below depicts the descriptive statistics of the various variables as employed in the study

Table 2: Descriptive Statistics of the Variables

	Mean	SD	MIN	MAX
FDIGDP	5.68	1.26	-5.1	53.0
Tariffs	13.83	0.54	12.1	14.4
RegTB	12.88	0.66	8.02	17.7
BMEXCH	10.78	1.56	8.36	18.8
INST	-0.82	0.60	-2.5	0.7
GCFGDP	24.73	10.09	1.6	61.5
INFL	120.28	53.28	12.88	140.89

FDIGDP is a measure of Foreign direct investment inflows as a percentage of GDP, Tarrif represent Tarrifs, RegTB represents regulatory trade barriers, INST is a measure of institutional quality, GCFGDP is represents Gross Capital Formation (% of GDP) and INFL represents Inflation.
Source: Field Data (2019)

From the descriptive statistics, foreign direct investment inflows had an average of 5.68 within the ranges of -5.1 and 53.0 with a standard deviation of 1.26, meaning that 68% of the distribution are either higher or lower than the mean by 1.26. This clearly shows that although African economies are putting several measures in place to attract foreign direct inflows over time, these economies have not been able to match up well with other regions in the world.

The tariffs averaged 13.83 with a standard deviation of 0.54 ranging between 12.1 and 14.4 over the period of study suggesting that African governments are striving to keep tariffs at a low to drive up FDI inflows. Regulatory trade barriers averaged 12.88 within the ranges of 8.02 and 17.7 with a standard deviation of 0.66 whereas the black market exchange rate was averagely 10.78 for the 48 countries examined with a minimum value of 8.36 and the maximum being 18.8 and a standard deviation of 1.56. This clearly shows that African economies have opened their shores to trade over time and this is essentially so because some international financial organizations grant aids to developing countries based on the condition of greater trade openness.

Gross capital formation which measures the investment rate recorded an average of 24.73 within the limits 1.6 and 61.5. Finally, the measure for inflation recorded an average of 120.28, within the limits 12.88 and 140.89, suggesting that there are still inflationary pressures in the sampled African countries. With regards to institutional quality, the aggregate institutional quality variable had an average of -0.82 within the limits of -2.5 and 0.7. This suggests that Africa is characterised by weak institutional quality and this is evident in the weak institutional structures prevalent in Africa.

Correlation Analysis

Table 3 presents the pairwise correlation matrix for the all the variables employed in the empirical analysis. Predictably, the overall or aggregate institutional structure index depicts a high pairwise correlation with each of the six institutional structures indicators and this is because the aggregated institutional quality variable is an average of the institutional structure indicators. It does not pose multicollinearity or autocorrelation problems because the aggregate institutional quality variable does not enter the same model with any of the six institutional structures indicators. Also, a close examination of the correlation matrix reveals that there are no issues of multicollinearity in the empirical specification because the other independent variables do not exhibit correlation coefficients more than 0.90 (Adam, 2015).

Correlation Analysis

Table 3 : Correlation Matrix

	FDIGDP	Tarrifs	RegTB	BMEXCH	INST	GCFGDP	INFL
FDIGDP	1						
Tariffs	-0.0293	1					
RegTB	-0.0405	0.5235	1				
BMEXCH	-0.0464	0.5270	0.5784	1			
INST	0.0523	0.6398	0.5340	0.5044	1		
GCFGDP	0.5269	0.6031	0.3579	0.6157	0.5353	1	
INFL	0.0522	0.4510	0.2747	0.4729	0.6124	0.6081	1

FDIGDP is a measure of Foreign direct investment inflows as a percentage of GDP, Tarrif represent Tarrifs, RegTB represents regulatory trade barriers, INST is a measure of institutional quality, GCFGDP is represents Gross Capital Formation (% of GDP) and INFL represents Inflation.
Source: Field data (2019)

33

Regression results of trade openness and foreign direct investment

The table below shows the effect of each of the trade openness indicators on the FDI of sampled countries in line with the objectives of the study. The table further presents the effect of each of the control variables on trade openness and foreign direct investment in Africa. The lag of the dependendent variable was used as the instrumental variable for this analysis.

Table 4: Relationship between Trade Openness and foreign direct investment in SSA economies
Dependent Variable: Foreign Direct Investment

	Model 1	Model 2	Model 3
L.FDIGDP(-1)	0.133***	0.184***	0.119***
	[0.019]	[0.013]	[0.014]
Tarrifs	-9.772***		
	[0.488]		
REGTB		-4.319***	
		[0.228]	
BMEXCH			-7.157***
			[0.345]
Control Var.			
INST	0.233***	0.123***	0.158***
	[0.002]	[0.012]	[0.015]
GCFGDP	0.232***	0.203***	0.122***
	[0.017]	[0.009]	[0.016]
INFL	- 0.150***	-0.121**	-0.120***
	[0.004]	[0.003]	[0.002]
Diagnostic			
AR(2):z	-1.344	-1.396	-1.444
P-Value	0.2143	0.1966	0.162
Observ.	493	493	493

FDIGDP is a measure of Foreign direct investment inflows as a percentage of GDP, Tarrif represent Tarrifs, RegTB represents regulatory trade barriers, INST is a measure of institutional quality, GCFGDP is represents Gross Capital Formation (% of GDP) and INFL represents Inflation.
Source: Field data (2019)

Tariffs and FDI

From model 1, the results depict that at 1% significance level, tariffs have a significant negative effect on foreign direct investment in Africa. The coefficient of 9.772 shows that a unit reduction in tariffs on any international trade related activity will lead to a 9.772 units increase in foreign direct investment into African economies. This also suggests that tariffs have a larger effect on FDI since there is a more than proportionate impact of tariff on FDI. This relationship is in line with literature as the reduction in tariffs reduces the prices of commodities and the cost of doing business in foreign countries. The results in this study are in line with those of Carstensen and Toubal (2003) and Bustos (2011) who found higher tariffs to adversely impact FDI inflows in their respective countries. Similarly, higher tariffs will lead to a fall in the total FDI inflows that a country will generate or attract. Since tariffs are mostly deployed as a protectionist tool by the countries implementing them, foreign investors see them as barriers to the free flow of trade with its resultant effect of making their goods expensive relative to the ones in the domestic market.

This deters foreign investors from investing in countries that have high tariffs on goods produced by foreign firms or their subsidiaries since this makes it difficult for them to penetrate into the domestic market in the presence of high tariffs The first hypothesis that there is no significant relationship between tariffs and FDI is therefore rejected since the results from this study provide enough evidence to suggest that as African countries reduce their tariffs and other taxes on international trade, it enhance trade in those

35

countries and this is likely to attract more foreign direct investments into Africa.

Regulatory Trade Barriers and FDI

The on the relationship between regulatory trade barriers represented by REGTB and foreign direct investment for the 48 African countries studied as presented in Model 2 of Table 4, regulatory trade barriers is found to negatively significant relationship with FDI inflows. Having a coefficient of –4.319 depicts that a unit reduction in trade barriers will all other things being equal, lead to an increase in FDI by 4.319 units. This reflects the fact that as the number of administrative mechanisms that restrict trade are removed, it helps the free flow of trade thereby attracting more foreign investors. This result is consistent with the findings of Hollweg and Wong (2009) who concluded that a less restricted trade environment in terms of regulations tends to attract more foreign investment.

This is because, with more regulatory trade barriers, the time, rules, standards and cost of establishing and operating a business in a foreign country escalates. Regulatory barriers either impede trade or prevent trade entirely imposing unnecessary stress on investors. Such barriers include employee rights, rules regarding remittances, red tape barriers among others. Most often, governments impose trade barriers as a way of protecting their industries but face the trade-off of losing the benefits of opening her shores to trade. In the light of these, economies like those in Africa that want to attract more inflows in terms of foreign investment would take steps to reduce the heckles that foreign investors face and this is reflective of the results in this study.

36

Black Market Exchange Rates and FDI

The relationship between the final independent variable, black market exchange rate represented by BMEXCH, and FDI is shown in the third model of table 4. Black market exchange rate was found to have a significant negative relationship with foreign direct investment. The results show that a unit increase in the black market exchange rates will lead to 7.157 units decline in FDI volume to the respective African countries. This is because movements in exchange rates have dire repercussions on FDI. Fluctuations in exchange rate can affect both the initial cash outflow needed to undertake the investment and the cash inflow to be reaped from the investment and since the unofficial market increases the rate of volatility in the exchange rate, it tends to negatively impact trade and investment. Investors who are risk averse would not want to invest in economies with fluctuating exchange rates both in the official and black market for fear of losing their investments.

Moreover, FDI volumes to African countries would fall if exchange rate movements are uncertain leading to uncertainties in prices and profit from investments in such countries. With the black market exchange rate affecting the officially quoted rates, planning becomes difficult and in Africa where financial markets are not fully developed, forward exchange rate markets are not existent to help investors hedge against foreign exchange risk. Investors would therefore prefer to invest in an environment that has a stabilised currency and activities in the black market are minimal. It is therefore the mandate of governments and the managers of their economy to stabilise exchange rates to promote trade in their countries thereby attracting more FDI. This findings are however inconsistent with Jayaratnam (2003) who found no

evidence for the impact of black market rates on FDI, suggesting that the black market has neither enhanced nor impeded FDI into recipient countries.

Control variables

Institutional Quality

The institutional quality variable (INST) has a significantly positive effect on FDI depicting that countries with well-functioning institutional structures tend to attract more FDI than those characterised by high levels of corruption, political instability, and lack of protection of investor rights, among others. At 1% sig level, as institutional quality in Africa increases by a unit, this can translate into 0.233 increase in FDI into the region. This is because improvement is the quality of the institutional structures present in a country reduces the risk associated with investment in such environment.

Models 2 and 3 also provide similar results to suggest that institutional quality is positively related to FDI. This results is in line with Wei (2000) who argues that low quality institutions are prone to represent extra costs for firms through corruption or high load of arbitrary bureaucracy. Therefore well-functioning institutions will help attract more foreign direct investments in economies since it saves these foreign investors some cost and influences them to invest in countries.

Gross Capital Formation

The rate of investment as measured by gross capital formation (GCFGDP) had a positive effect on FDI. At 1% significance level, a percentage increase in gross capital formation will lead to 33.2% increase foreign direct investment. Also, gross capital formation had a significant coefficient of 0.303 at 1% significant level in model 2 which means a

38

percentage increase in gross capital formation will lead to 30.3% increase in foreign direct investment in Africa. Similar results were obtained in model 3 since gross capital formation had a positive effect on foreign direct investment in Africa.

Inflation and FDI

The results depict that inflation is negatively related to FDI in all three models in table 4 and this is consistent with literature because, as inflation, which represents the increments in the general price levels over time, is high, its ramifications are numerous. Higher inflation means the cost of borrowing would be higher in terms of high interest rates, prices of goods and services would also increase and other macroeconomic variables will also be affected. Higher levels of inflation also has the tendency of reducing the real returns from an overseas investment. This is to suggest that when the general price levels are more stable evidenced in low inflation levels, it attracts FDI but higher inflationary periods hinder foreign investment.

Diagnostics

According to Mileva (2007) the null hypothesis for the test for AR (2) in first differences should not be rejected. For all the models in Table 4 at 5 % significance level, the p-values of the AR (2) process showed no rejection of the null hypothesis of no autocorrelation. This shows that there is an absence of autocorrelation in all the models.

Chapter Summary

This chapter provided a descriptive statistics of the dependent, independent and control variables deployed in the study with emphasis on the mean, standard deviation, minimum and maximum values of each variable.

This was followed by the Pearson Product Moment Correlation coefficients to explore the level of association between the various variables. Results from the statistical analysis using Stata were then presented and discussed as such before concluding with a chapter summary.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter presents the summary of the study, conclusions drawn and the recommendations from the findings. It is presented in four sections. The summary of the whole study is presented in the first section indicating the objectives, scope of the study, methodology and major findings in brief. The conclusion drawn from the major findings is presented next. It also provides the basis for determining whether or not the specific objectives of the study have been achieved. Therefore, there is a concluding explanation on each of the specific objectives and implications from the major findings.

The recommendations section is the third part of this chapter. This section presents the appropriate recommendations with reference to the major findings, conclusions and implications identified in this study. The recommendations are limited to this study and it will be of help to governments and other policy makers and researchers. The final section indicates the course and suggestions for future studies. It captures gaps and important research issues for future consideration.

Summary of Study

It is a public knowledge that developing economies especially those in Africa are striving to attract FDI into their countries since it contributes immensely to economic growth. Nonetheless, the region has not seen the desired level of foreign investment anticipated to spur their growth even though governments have taken several measures and implemented policies hoped at drawing investors. Again, the FDI levels attained over the past years

have not been sustainable with fluctuating volumes in the last years. Several factors have been found to be the determining factors of FDI around the world. To this effect, this study sought to determine the relationship between trade openness and FDI in Africa by employing Arellano and Bond's Generalized Method of Moments (GMM). Specifically, the study examined the relationship between tariffs and FDI as the first objective, regulatory trade barriers as the second objective and finally the relationship between black market exchange rates and FDI as the third objective.

The theory of comparative advantage, imperfect markets theory, Heckscher-Ohlin theory of trade and the eclectic theory of FDI provided the theoretical justifications for the study. Several empirical studies were also reviewed thoroughly to know the current trend and position of the variables in relation to FDI. The study employed the positivism research paradigm and the explanatory research design to estimate the models since the study is a quantitative study. Data for the 48 African countries on tariffs, regulatory trade barriers and black market exchange rates were obtained from the Fraser Institute's Economic Freedom indicators while that for FDI was obtained from the World Bank's World Development Indicators. Descriptive statistics and correlation analysis were presented before employing the dynamic panel GMM to estimate the statistical models.

Summary of Findings

The main objective of this study was to determine the relationship between trade openness and foreign direct investment in Africa. The specific objectives of the study were to examine the impact of tariffs, regulatory trade barriers and black market exchange rates on foreign direct investment

respectively. The table below presents a summary of the findings from the study on each objective.

Table 5: Summary of Results on the Hypothesis

Hypotheses	Confirmation
H1: There is no significant relationship between tariffs and FDI inflows to African economies.	Reject
H2: There is no significant relationship between Regulatory trade barriers and FDI inflows to African economies	Reject
H3: There is no significant relationship between Black-market exchange rates and FDI to African economies	Reject

Source: Field Data, (2018)

In relation to the first objective, the results found strong evidence to suggest that tariffs negatively impact foreign investment in Africa. This means that increasing tariffs in the region is tantamount to trading off the benefits of attracting foreign direct investment. This finding was expected since the first hypothesis was formulated based on evidence from literature that suggested that higher tariffs will hinder FDI.

In hypothesis 2, the study tested whether regulatory trade barriers affect FDI in Africa and found that regulatory trade barriers impact foreign direct investment negatively in Africa. It is especially so because as the number of hurdles foreign investors face in pursuit of opportunities in other countries, it increases their cost and also serves as bottlenecks to the investment process. Such mechanisms put off investors and also increases the opportunity cost of investing in the African continent. Countries who want to

43

attract more investments from foreign nationals need to reduce the regulatory barriers investors come across to incentivise them into their countries.

The third objective examined the relationship between black market exchange rates and foreign direct investment. The results shown that the unofficial exchange rates also impact FDI negatively in the countries under study because activities in the black market are illegal, unstructured, unregulated and plagued with so much uncertainty. The volatility of the exchange rates of African currencies makes the domestic value of revenue to foreign investors uncertain and the unregulated nature of the black market escalates the uncertainty in the currency market.

Institutional quality depicted a significantly positive effect on FDI to suggest that African countries strive for an environment that is politically stable, free from corruption, protests investor rights and laws are legally enforced in an effective and efficient government system, investor confidence rises and this can attract more foreign capital. Gross capital formation also indicated a positive effect on FDI. The implication is that as the rate of investment in a country is on the rise, it sends positive signals to foreign investors who will be drawn to have a bite at the lucrative opportunities available in those countries. The third control variable, inflation, however indicated a negative effect on foreign investment. This can be so because when the general prices of goods and services are on a rise in a country, cost of investment, production and prices of newly produced goods will also rise, all other things being equal.

Conclusions

Some very insightful and interesting results emerged from the current study and based on those results, the following conclusions were arrived at. From the results, the conclusion on the first objective is that, to attract more FDI into Africa, governments need to reduce trade tariffs since tariffs negatively and significantly affect FDI. Secondly, the study concludes that African governments ought to take some stringent steps to remove some of the regulatory hurdles in the form of trade barriers if they quest to entice foreign investors into the region. Finally, the study found exchange rates in the black market to be negatively associated with FDI suggesting that the black markets also presents another impediment for foreign direct investors being attracted into Africa.

The control variables suggest that gross capital formation, which represents the rate of investment, is a vital indicator of the confidence and interest of investors into countries with positive outlook whereas low inflation rates would also be favoured by investors who would want to repatriate their earnings to their home country. The institutional framework covering the political environment, enforcement of laws and protection of investor right are also necessary to attract FDI. The overall conclusion is that FDI is responsive to countries who open their shores to trade and as trade openness increases, it is likely to draw more FDI.

Recommendations

The following recommendations are made based on the findings of the current study. In relation to the first objective, the study recommends that African governments would take steps to reduce both tariffs and other non-

tariff barriers to trade since this is a major impediment to FDI. The implication is that the revenue loss from tariffs might be compensated for through other avenues as more investment is attracted into the continent. More so, the regulatory mechanisms in place should be more relaxed while the right institutions are strengthened in order to enforce those regulatory proceedings. This is necessary because strong and well-functioning institutions work better than deploying procedures that serve as bottlenecks to the investment process.

It is also expected that regulators of the foreign exchange market would take eminent steps to bring trading in the black market under an umbrella of regulation and control and synchronise their activities with the official market since their activities largely affects and determines the exchange rate. It is also recommended that efforts are made by policy makers and regulators to attain some stability in the macroeconomic indicators since it also increases the confidence of investors about the economy.

Suggestions for Future Research

First of all, future studies can extend the current study by having a greater data coverage in terms of the years span so as to inculcate periods of low FDI inflows into Africa. Other trade related control variables can also be included to test if the results would vary. It is also suggested that further research can also disaggregate the study to investigate the effect of trade openness on the regional blocks or sub regions and those countries with similar trade policies. Again, both trade openness and FDI can also be analysed in terms of the various sectors of Africa's economy. Finally, further studies could employ other estimation techniques and econometric models other than those employed in this study.

REFERENCE

Agyemang, O. S. (2018). Institutional structures and the prevalence of foreign ownership of firms: Empirical evidence from Africa. In *Handbook of Research on Sustainable Development and Governance Strategies for Economic Growth in Africa* (pp. 455-479). IGI Global.

Agyemang, O. S., Gbettey, C., Gatsi, J. G., & Acquah, I. S. K. (2019). Country-level corporate governance and foreign direct investment in Africa. *Corporate Governance: The International Journal of Business in Society*, *19*(5), 1133-1152.

Alaba, O. B. (2003). Exchange rate uncertainty and foreign direct investment in Nigeria. In *A Paper Presented at the WIDER Conference on Sharing Global Prosperity, Helsinki, Finland*, *6*(7), 48-59.

Alfaro, L., Kalemli-Ozcan, S., & Sayek, S. (2009). FDI, productivity and financial development. *World Economy*, *32*(1), 111-135.

Amiti, M., & Konings, J. (2007). Trade liberalization, intermediate inputs, and productivity: Evidence from Indonesia. *American Economic Review*, *97*(5), 1611-1638.

Ang, J. B. (2008). A survey of recent developments in the literature of finance and growth. *Journal of Economic Surveys*, *22*(3), 536-576.

Anyanwu, J. C. (2011). *Determinants of foreign direct investment inflows to Africa, 1980-2007* (pp. 1-32). African Development Bank Group.

Anyanwu, J. C. (2012). Why Does Foreign Direct Investment Go Where It Goes?: New Evidence From African Countries. *Annals of Economics & Finance*, *13*(2), 17-41.

47

Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The Review of Economic Studies*, *58*(2), 277-297.

Arellano, M., & Bover, O. (1995). Another look at the instrumental variable estimation of error-components models. *Journal of Econometrics*, *68*(1), 29-51.

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

Asiedu, E. (2006). Foreign direct investment in Africa: The role of natural resources, market size, government policy, institutions and political instability. *World economy*, *29*(1), 63-77.

Bajo-Rubio, O., & Sosvilla-Rivero, S. (1994). An econometric analysis of foreign direct investment in Spain, 1964-89. *Southern Economic Journal*, *2*(7), 104-120.

Banerjee, S., Oriani, R., & Peruffo, E. (2019). Corporate board structure and foreign equity investments in weak institutional regimes. *Corporate Governance: An International Review*, *27*(6), 458-476.

Bankole, A. S., & Adewuyi, A. O. (2013). Have BITs driven FDI between ECOWAS countries and EU? *Journal of International Trade Law and Policy*, *22*(3), 536-576.

Blundell, R., & Bond, S. (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics*, *87*(1), 115-143.

Buckley, P. J., & Casson, M. (1985). *The economic theory of the multinational enterprise*. Springer.

Bustos, P. (2011). Trade liberalization, exports, and technology upgrading: Evidence on the impact of MERCOSUR on Argentinian firms. *American Economic Review*, *101*(1), 304-40.

Carstensen, K., & Toubal, F. (2003). Foreign Direct Investment in Central and Eastern European Countries: A Dynamic Panel Analysis, Kiel Institute of World Economics. *Working Paper No.*, 1143.

Caswell, J. A., & Hooker, N. H. (1996). HACCP as an international trade standard. *American Journal of Agricultural Economics*, *78*(3), 775-779.

Cheng, L. K., & Kwan, Y. K. (2000). What are the determinants of the location of foreign direct investment? The Chinese experience. *Journal of International Economics*, *51*(2), 379-400.

Cole, M. A., Elliott, R. J., & Fredriksson, P. G. (2006). Endogenous pollution havens: Does FDI influence environmental regulations? *Scandinavian Journal of Economics*, *108*(1), 157-178.

Cooper, D., Schindler, R., & Pamela, S. (2014). *Business Research,* New York: McGraw Hill.

Creswell, J. W. (2014). *A concise introduction to mixed methods research*. SAGE publications.

David, H. L. (2008). So You Want to Use a Measure of Openness? In *The Design and Use of Political Economy Indicators* (pp. 15-32). Palgrave Macmillan US.

De Souza, R., Goh, M., Gupta, S., & Lei, L. (2007). An investigation into the measures affecting the integration of ASEAN's priority sectors (Phase 2): the case of logistics. *REPSF Project*, *6*(001).

Druppers, B. (2017). FDI in Sub-Saharan Africa: The Importance of Trade Openness.

Du, L., Harrison, A., & Jefferson, G. (2011). *Do institutions matter for FDI spillovers? the implications of China's" special characteristics"*. The World Bank.

Dunning, J. H. (2000). The eclectic paradigm as an envelope for economic and business theories of MNE activity. *International business review*, *9*(2), 163-190.

Gouvea, R., & Hranaiova, J. (2002). Brazil and the FTAA: Strategic trade options. *Multinational Business Review*, *10*(2), 33-51.

Graham, E. M. (2000). Strategic management and transnational firm behaviour. *The nature of the transnational firm*, 162-173.

Hassan, S. S. (2015). Economic institutions and the outward FDI location strategies of emerging market multinational business groups: Evidence from central and eastern european countries. *Review of Economics and Institutions*, *6*(1), 41.

Hoang, H. H., & Goujon, M. (2014). Determinants of foreign direct investment in Vietnamese provinces: a spatial econometric analysis. *Post-Communist Economies*, *26*(1), 103-121.

Hollweg, C., & Wong, M. H. (2009). Measuring regulatory restrictions in logistics services. *ERIA Discussion Paper Series*, *14*.

Hooker, N. H., & Caswell, J. A. (1996). Trends in food quality regulation: Implications for processed food trade and foreign direct investment. *Agribusiness: An International Journal*, *12*(5), 411-419.

Hufbauer, G. C., Lakdawalla, D., & Malani, A. (1994). Determinants of foreign direct investment and its concentration to trade. *UNCTAD Review*, *5*.

Hymer, S. (1960). On multinational corporations and foreign direct investment. *The theory of transnational corporations.* London: Routledge for the United Nations.

Hymer, S. H. (1976). *International operations of national firms*. MIT press.

Jayaratnam, A. (2003). How Does The Black Market Exchange Premium Affect Foreign Direct Investment (FDI). *A Paper from Stanford University*, 1-16.

Jurn, I., & Park, H. Y. (2002). The trade effects on the non-member countries of the regional integration: The case of the Mercosur. *Multinational Business Review*, *10*(2), 23.

Kaufmann, D., Kraay, A., & Mastruzzi, M. (2011). The worldwide governance indicators: methodology and analytical issues. *Hague Journal on the Rule of Law*, *3*(2), 220-246.

Khalifah, N. A., & Adam, R. (2009). Productivity spillovers from FDI in Malaysian manufacturing: evidence from micro-panel data. *Asian Economic Journal*, *23*(2), 143-167.

Khandelwal, A. & Topalova P. (2011). Trade Liberalization and Firm Productivity: The Case of India. *The Review of Economics and Statistics, 93*(3), 995-1009.

Klein, M., Aaron, C., & Hadjimichael, B. (2001). *Foreign direct investment and poverty reduction*. The World Bank.

Kox, H., & Lejour, A. (2006). The effects of the Services Directive on intra-EU trade and FDI. *Revue Economique*, *57*(4), 747-769.

Kumari, A., & Sharma, A. K. (2017). Physical & social infrastructure in India & its relationship with economic development. *World Development Perspectives*, *5*, 30-33.

Kyereboah-Coleman, A., & Agyire-Tettey, K. F. (2008). Effect of exchange-rate volatility on foreign direct investment in Sub-Saharan Africa. *The Journal of Risk Finance, 26*(1), 103-121.

Lippoldt, D. (2010). Trade and The Economic Recovery: Why Open Markets Matter.

Madura, J. (2020). *International financial management*. Cengage Learning.

Mileva, E. (2007). Using Arellano-Bond dynamic panel GMM estimators in Stata. *Economics Department, Fordham University*, *8*(1), 1-10.

Moore, M. O. (1993). Determinants of German manufacturing direct investment: 1980–1988. *Review of World Economics*, *129*(1), 120-138.

Na, L., & Lightfoot, W. S. (2006). Determinants of foreign direct investment at the regional level in China. *Journal of Technology Management in China, 26*(1), 103-121.

Nataraj, S. (2011). The impact of trade liberalization on productivity: Evidence from India's formal and informal manufacturing sectors. *Journal of International Economics*, *85*(2), 292-301.

Nunnenkamp, P. (2002). *Determinants of FDI in developing countries: has globalization changed the rules of the game?* (No. 1122). Kiel Working Paper.

OECD (2010c). Trade and Economic Effects of Responses to the Economic Crisis – Policy Note, TAD/TC/WP (2010)11/FINAL, OECD, Paris.

Ohlin, B. (1933). *Interregional and International Trade*. Cambridge*:* Harvard University Press.

Onyeiwu, S., & Shrestha, H. (2004). Determinants of foreign direct investment in Africa. *Journal of Developing Societies*, *20*(1-2), 89-106.

Osinubi, T. S., & Amaghionyeodiwe, L. A. (2009). Foreign direct investment and exchange rate volatility in Nigeria. *International Journal of Applied Econometrics and Quantitative Studies*, *6*(2), 83-116.

Owusu-Antwi, G., Antwi, J., & Poku, P. K. (2013). Foreign direct investment: a journey to economic growth in Ghana-empirical evidence. *International Business & Economics Research Journal*, *12*(5), 573-584.

Paus, E. A., & Gallagher, K. P. (2008). Missing links: Foreign investment and industrial development in Costa Rica and Mexico. *Studies in Comparative International Development*, *43*(1), 53-80.

Roodman, D. (2006). An index of donor performance. *Center for Global Development Working Paper*, (67).

Sally, R. (2006). China's Trade Policies in Wider Asian Perspective. In *Globalisation and Economic Growth in China* (pp. 179-233).

Sally, R. (2015). Why openness to trade matters. World Economic Forum. Retrieved from: https://www.weforum.org/agenda/2015/09/why-openness-to-trade-matters/

Saunders, M. N., & Lewis, P. (2012). *Doing research in business & management: An essential guide to planning your project*. Pearson.

Seetanah, B., & Rojid, S. (2011). The determinants of FDI in Mauritius: a dynamic time series investigation. *African Journal of Economic and Management Studies, 26*(1), 103-121.

Siddiki, J. U. (2000). Black market exchange rates in India: An empirical analysis. *Empirical Economics*, *25*(2), 297-313.

Topalova, P., & Khandelwal, A. (2011). Trade liberalization and firm productivity: The case of India. *Review of economics and statistics*, *93*(3), 995-1009.

United Nations Conference on Trade and Development (2018). *World Investment Report: Special Economic Zones*. Geneva; United Nations.

Wang, Z. Q., & Swain, N. J. (1995). The determinants of foreign direct investment in transforming economies: Empirical evidence from Hungary and China. *Weltwirtschaftliches Archiv*, *131*(2), 359-382.

Wei, S. J. (2000). How taxing is corruption on international investors? *Review of Economics and Statistics*, *82*(1), 1-11.

Wheeler, D., & Mody, A. (1992). International investment location decisions: The case of US firms. *Journal of International Economics*, *33*(1-2), 57-76.

World Investment Report (2019). *Transnational corporations and the infrastructure challenge*. United Nations Conference on Trade and Development.

Yang, J. Y. Y., Groenewold, N., & Tcha, M. (2000). The determinants of foreign direct investment in Australia. *Economic Record*, *76*(232), 45-54.

Zahonogo, P. (2018). Globalization and economic growth in developing countries: evidence from Sub-Saharan Africa. *The International Trade Journal*, *32*(2), 189-208.