**KWAME NKRUMAH UNIVERSITY OF SCIENCE ANDTECHNOLOGY**

**COLLEGE OF HUMANITIES AND SOCIAL SCIENCE**

**SCHOOL OF BUSINESS**



# AN EMPIRICAL ANALYSIS OF THE INTERRELATIONSHIP BETWEEN FOREIGN CAPITAL INFLOWS, FINANCIAL DEVELOPMENT AND ECONOMIC GROWTH IN AFRICA

**SAMUEL GYASI ADOM**

**(BSC ACCOUNTING)**

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## DECLARATION

I hereby declare that this submission is my own work toward the award of the Master of Science in Finance and that to the best of my knowledge, it contains no material previously published by another person, nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.



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| Samuel Gyasi Adom | ..... | ..... |
| (PG 8953419) | Signature | Date |

**Certified by:**

| | | |
|---|---|---|
| Dr. Godfred Aawaar | ..... | ..... |
| (Supervisor) | Signature | Date |

**Certified by:**

| | | |
|---|---|---|
| Dr. Daniel Domeher | ..... | ..... |
| (Head of Department) | Signature | Date |

## DEDICATION

I dedicate this research work to the Almighty God, my creator and strong pillar. I also dedicate this work to my family and friends. A special feeling of gratitude to my loving parents Mr and Mrs Gyasi Adom not forgetting me uncle Mr James Osei whose words of encouragement and push for tenacity has brought me this far. Thank you. My love for you all can never be qualified. God bless you.

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## ABSTRACT

Financial markets are a key factor in producing strong economic growth because they contribute to economic efficiency by diverting financial funds from unproductive to productive uses. Countries with better-developed financial systems tend to grow faster over long periods of time, and a large body of evidence suggests that this effect is causal: financial development is not simply an outcome of economic growth; it contributes to this growth. It reduces poverty and inequality by broadening access to finance to the poor and vulnerable groups, facilitating risk management by reducing their vulnerability to shocks, and increasing investment and productivity that result in higher income generation. Despite these assertions however, there exists no study that focuses on the African economy that examines the interrelationship between foreign capital inflows, financial development and economic growth. The main objective of the study was to examine the moderating role of foreign capital inflows in the relationship between financial development and economic growth providing evidence from emerging African economies. In order to achieve this objective, the study uses an explanatory research design and a quantitative approach to the study. The study utilizes data from 2004 to 2018, combined with the selected sample of 35 countries, this amounts to a total of 525 observations. The study uses the random-effect regression model to analyse the relationship between the variables in the study. Based on the findings of the study, it can be concluded that financial development has a negative effect on economic growth among the selected countries. The study further found that foreign capital inflows in the form of foreign direct investment has a positive effect on economic growth among these African countries. Despite this however, the study found that foreign capital inflows do not moderate the relationship between financial development and economic growth among these countries. The study therefore concludes that more finance is not necessarily good for economic growth and highlight that an ‘‘optimal’’ level of financial development is more crucial in facilitating growth. Based on the findings, the study recommended among other things that countries in Africa should put in policies and measures that could help them attract more foreign direct investments into the country in order to help promote their economic growth since foreign capital inflows is found in this study to affect economic growth positively.

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| | |
|---|---|
| FCI | Foreign Capital Inflows |
| FDI | Foreign Direct Investment |

# CHAPTER ONE

# INTRODUCTION

## 1.1 Background of the Study

Capital markets are crucial in generating solid economic growth by diverting financial reserves from unproductive to productive uses, which tends to increase economic performance (Ibrahim and Alagidede, 2018). A wide variety of evidence indicates that the development of the financial sector plays a significant role in economic growth (Ouyang and Li, 2018). It promotes economic growth by capital build-up and technical innovation through growing savings, mobilizing and integrating savings (Quartey and Prah, 2008; Kapingura and Alagidede, 2016), generating investment knowledge, promoting and stimulating foreign capital inflow, and maximizing capital distribution (Fosu, 2003: Abdouli and Hammami, 2018; Mazumdar, Bhatta). Countries with well structured financial structures are more prone to expand over a sustained duration and a significant volume of data shows that this influence is causal: financial development is not just the product of economic growth; it leads to this growth. In addition, vulnerability and inequalities are minimized by expanding access to finance to the underprivileged and disadvantaged communities by reducing their risk control and increasing expenditure and competitiveness contributing to higher earnings (Kaidi, Mensi and Amor, 2019; Majid *et al.*, 2019).

In the scientific literature, there has been detailed study into the effect of financial progress on economic growth. While transversal studies have concluded that economic growth has a positive impact of the financing of development (Ohlan, 2017; Durusu-Durusu-Ciftci *et al.,* 2017; Azman-Saini *et al.,* 2010; Bukowski and Zięba, 2019), empirical studies have reached a less consistent conclusion using time series or panel

data models (Bumann *et al.*, 2013; Caporale *et al.*, 2015; Samargandi *et al.*, 2013; For example, in 16 African countries, Bist and Read (2018) researched the phenomena and found that financial progress had a positive influence on economic growth. Ibrahim and Alagidede (2018); Rahman et al. (2020) backed these results. However, another research studied the middle income phenomenon (Samargandi et al. (2015) and found that too much finance may affect development in middle-income countries. The conclusions of Madsen et al. (2018) have also demonstrated that there is no detrimental impact between the variables. Their observations are also supported. While in the empirical literature there is little agreement on the presence and extent of the connection between economic growth and financial development, the literature that exists suggests that the nature of the link varies from country to country and is likely to be different between countries with different levels of economic growth.

It is also likely that unconscious macroeconomic variables including external capital inflows will in Hoque and Yakob (2017); Nyasha and Odhiambo (2018), decide the presence and essence of the financial development growth connection and therefore the most productive approach is to analyze the relationship between economic development and financial development in light of this variable. Many scientists believe in optimistic movements in equity market and economic development in global capital flows, including FDIs, remittances, and external debts (Baharumshah *et al.*, 2015). Global capital extends domestic resources in several respects, for example by developing equity, infrastructure, business capabilities, brands and consumer penetration (Thirwall, 2011). The FCF could also increase the public wellbeing of economic players. Despite rising inflow patterns, their influence on economic welfare, particularly in the sense of SSA, is not well understood.

Nevertheless no African research explores the position of international capital in the partnership between financial stability and economic growth (Bumann *et al.,* 2013; Caporale *et al.,* 2015). This study is not being carried out. This study claims that, albeit with a pause, the inflows impact welfare by financial growth which increased demand for financial services, pushing the financial industry in turn to produce new goods and eventually enhance the functioning of the financial system. The theory of financial well-being indicates that FD levels influence both human and fitness capital accumulation that improve economic well-being (Ruiz, 2018; Eren *et al.,* 2019). In addition, FCF has been promoting the financial sector to build derivatives suited to these influxes (Gruber and Kamin 2010). This paper thus fills the research gap by exploring how the connection between financial development and economic growth is influenced by external capital inflows.

**1.2 Statement of the Problem**

The 2008 financial crash has strengthened the interest in the global economy's consequences of financial growth. In literature, financial development had a positive influence on economic activity before the recession. Theoretically, the main point was to reduce the knowledge friction and processing costs of the more mature financial structures and thereby promote development. Based on a discussion of the empirical data available, Levine (2005) concludes that more finance has a positive overall impact on productivity. In the literature on the scientific relationship between financial development and economic growth, there is no full agreement despite this general finding. This thesis claims that FCIs are a fortune of both financial and economic development in every economy thus the thesis aims to resolve the literature gap.

### 1.3 Objective of the Study

From the above controversies, the broad objective of the study was to examine the moderating role of foreign capital inflows in the relationship between financial development and economic growth. Specifically, the study purport to:

i. evaluate the effect of financial development on economic growth of emerging African economies.
ii. analyse the effect of foreign capital inflows on economic growth of emerging African economies.
iii. examine the moderating effect of foreign capital inflows in the financial development-growth nexus among emerging African countries.

### 1.4 Research Questions

In order to achieve the above objectives, the following research questions were set:

i. What is the effect of financial development on economic growth of emerging African economies?
ii. What is the effect of foreign capital inflows on economic growth of emerging African economies?
iii. To what extent do foreign capital inflows moderate the relationship between financial development and economic growth among emerging African countries?

### 1.5 Significance of the Study

The primary objective was to explore the moderating function of foreign capital inflows among emerging African economies in the link between financial development and economic growth. The results of the analysis will provide policymakers with data

to assist them in formulating policies which would further strengthen the host country's financial institutions and economies and economic development. Political policymakers will therefore be willing to develop policies that can influence macroeconomic factors, contributing to increased economic development or foreign capital inflows, based on the results of this report. In order to further promote economic development in the host nation, the research would also provide investors an insight into how their investments in form of foreign capital have an effect on the economies in countries they are investing into. The research will also add to financial progress, economic growth and the idea of foreign capital inflows literature and development.

### 1.6 Scope of the Study

This study analyses the moderating role of foreign capital inflows in the relationship between financial development and economic growth centred on 35 emerging African economies. This is because these countries have had foreign capital inflows which have impacted their economies. The study mainly focuses on the effects of financial development and economic growth, foreign capital inflows and economic growth and their moderating effects on emerging Africa economies.

### 1.7 Summary of Methodology

This study is aimed at empirically examining the moderating role of foreign capital inflows in the relationship between financial development and economic growth among emerging African countries. In order to achieve this objective, the study would use an explanatory research design and a quantitative approach to the study. The explanatory research design is chosen because it would help the study explain the relationship that exists among the individual variables being researched. The study's population would

revolve around all emerging economies in Africa; however, due to the unavailability of data across some countries, the study would limit its sample size to 35 emerging African countries. The study would utilize data from 2004 to 2018, combined with the selected sample of 35 countries; this would amount to a total of 525 observations. The observed countries include; "Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verdi, Cameroon, Central African Republic, Comoros, Congo Republic, Congo Democratic, Cote d'Ivoire, Algeria, Egypt, Gabon, Ghana, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Mali, Morocco, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, South Africa, Zambia, Uganda, Tunisia, Togo, Tanzania and Sudan. The large observation is used because this would provide higher degrees of freedom which could subsequently affect the accuracy of the estimated regression model.

Following the study of (Mowlaei, 2018), ' the moderating variable, foreign capital inflows was the foreign direct investment inflows. The dependent variable, economic growth would be measured using the GDP growth rate of the country whiles financial development would be measured using credit provided by financial sector to the private sector (% of GDP) as a proxy. Relative to the source of the data, data on economic growth and financial development would be obtained from World Development Indicators Database of the World Bank website. The Hausman test was used in order to decide between fixed effects (FE) and random effects (RE) estimates, under the full set of random effects assumptions. The study uses the generalized model of moments (GMM) estimation method to investigate the impact of stock market development in the finance-growth nexus among the selected sample. The GMM estimation would take care of the potential FDI endogeneity issue that would arise in the panel.

## 1.8 Limitations of the Study

The main limitation of the study was the unavailability of data for certain periods among some of the selected countries used in the study. This led to the research relying of the use of 20 countries across 15 years; the researcher admits that the findings of the study could have been different if these unobserved periods were considered.



## 1.9 Organisation of the Study

This research is organised into five main chapters, the first chapter, that is the Introduction, give a background to the study, and state the problem to be investigated, the research objectives and questions to help in achieving these objective. The chapter also presents information on the scope and significance of the study and further presents an overview of the methodology used for this research. The next chapter of the study is the literature review. This chapter reviews theories backing the research and empirical studies conducted by other scholars. It also explains the variables used in this study.

The chapter three, which is the methodology, follows the literature review. The methodology chapter talks about the research design, population and sample, the data and sources of the data and presents the model specification for the study. The fourth is the data presentation and analysis, which presents the various tests, conducted by the researcher to validate the data used for the study and further presents the analysis of the data. The final chapter is the summary, conclusion and recommendation. In that chapter, the researcher summarises the entire study and makes conclusions based on other researchers conducted in the fiend. The researcher further makes

recommendations based on the findings of the study. The recommendations are made for government, policy makers, investors and future researchable areas.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.0 Introduction

This chapter presents a review of related literature used for this study. This chapter is divided into four sections with each section focusing on a particular aspect of literature related to this study. Section 2.1 defines concepts used in the study and provides further information about the concepts and variables for the study. Theories relevant to the study are provided in section 2.2, and the arguments leading to the use of these theories are also contained in that section. Section 2.3 provides empirical literatures that have been conducted in the study area globally and in Africa. Finally, section 2.4 provides the hypothesis development and conceptual framework for the study.

## 2.1 Conceptual Literature Review

In this section of the chapter two, the study reviews the various concepts that are used in the study. The concepts cover financial development, foreign capital inflows and economic growth.

### 2.1.1 The Concept of Financial Development

Schwab (2011) describes financial growth as all factors contribute to effective financial intermediation and markets as well as profound and comprehensive access to capital and monetary administrations in the Global Financial Development Report. In this sense, the concept includes the fundamental support for a monetary and commercial framework; the monetary middle people and the markets under which the extension of danger and the distribution of resources will take place; and the implications of this financial intermediation mechanism that involves access to and access to capital

(Schwab, 2011); Indeed, this description includes the many acts taken in literature. Previous publications postulated the vital role of financial markets in alleviating consumer friction and thereby impact saving pace, expenditure, technical advancement and thus long term growth rate (Schumpeter, 1911; Gurley and Shaw, 1955; Goldsmith, 1969; Miller, 1998; McKinnon, 1973). Financial structures, according to new literature, help mobilize and pool savings, provide payment services that enable transfers of goods and services, produce and process investment knowledge and investment plans in order to allow the effective allocation of funds, track assets and corporate management after the allocation of those funds, and contribute to diversifying, transforming and managing risk.

#### 2.1.1.1 Determinants of Financial Development

Given the economic growth consequences of the financial sector, it is wise to stress those factors that promote the sector's growth and development. The rise contributed to the hypothesis of finance, often known as a hypothesis following demand that the degree of economic growth helps to encourage the financial sector's growth. Real-market growth and the resultant rise in real profits and jobs would generate a need for financial services that is positive for the sector (Patrick, 1966). Other variables lead to the advancement of the finance sector in addition to economic growth. Voghouei *et al.*, (2011) studied the origins of financial development literature and concluded, among the factors contributing to financial sector economic growth, foreign policy and financial liberalization strategies, macroeconomic factors, agencies, legal and regulatory frameworks and economic policy factors. The determinants of banking growth in 25 SSA countries were examined by Aluko and Ajayi (2017) using a GMM dynamic panel estimator on data averaged in three years from 1997 to 2014. The results of the report

suggested that the profundity of the banking system was influenced favourably, with inflation, financial liberalization and economic development having a detrimental influence on the stability of the banking sector.

The key sources would be illuminated to explain the factors fostering financial growth. Firstly, the policies of liberalization are a significant determinant of financial sector level. In order to expand both finance and economy, the systemic reform policies of the 1980s were introduced. Liberalization eliminates cross-border capital flow restrictions and interest rate controls as well as other government financial repressive steps. Furstenberg and Fratianni (1996) indicated that policymakers would be required to repress the finance market and redirect funds to those industries if tax income mobilizations are insufficient. This is not encouraging economies to expand, since the business sector cannot be funded enough to generate big profits. Liberalization improves financial depth with increased interest rates as actual savings and consumption are encouraged (Shaw, 1973; McKinnon, 1973). These policies could lead, if not enforced and handled correctly, to financial crises (Ghosh, 2005).

In supervising all financial intermediaries, agencies operate as checks and balances to ensure that they carry out their authorised duties as outlined by statute. Huang (2010) suggested that the economic institutions make the supply side of the growth of the financial sector. These organizations are separate from political pressures and reflect the consistency of their institutions. Institutions can ultimately raise customer confidence and take steps to stop or minimize the consequences of bankruptcies. The underdeveloped structure of the financial sector represents a poor systemic efficiency, contributing to low economic growth (Anayiotos and Toyoran, 2009; Ahmed and

Mmolainyane, 2014). The endowment hypothesis and settler death theory (Beck *et al.*, 2003) describe the consequences of financial growth for organizations (Acemoglu *et al.*, 2005).

The growth of the financial sector will take place if the rule of law is present and maintained in countries. This is owing to law enforcement, investors and stakeholders and the security of their interests (La Porta *et al.*, 1998). The roots of and consistency of the legal system tradition dictate to what degree the roles of the financial sector as advocated by La Porta et al. (1998) should be encouraged or hindered. Beck et al. (2003) have stated that economies which conform with the practice of British common law have grown better than those adopting the tradition of French civil law. However, Asongu (2012) noticed that economies which follow the practice of French civil law are better at providing financial services.

Exports growth by the formation of resources, technical progress and the production of jobs is stated to be driving economic growth (Feder, 1983). Openness in exchange and financial progress often has a good long-term relationship (Kim *et al.*, 2010).

The simultaneous theory of transparency suggested by Rajan and Zingales (2003) indicates both exchange and open finance should foster the growth of the financial sector. This theory notes that the breadth of financial business will increase an economy accessible both to exchange and capital flows. Simultaneous open-mindedness research like Law (2007, 2009) was sponsored. Trade liberalisation, regardless of the capital transfers of assistance in trade deals, goes along with financial liberalisation. La Porta et al. (1998) offered to improve trade liberalisation. The growth

of private loans was related to the increase in the movement of private capital and commodity prices as SSA exported its items. The data used by Takyi and Obeng (2013) between 1988 and 2010 shows that the tax per capita and transparency of exchange lead to Ghana's financial growth.



Factory financial sector development will be supported by additional variables like monetary policy, the political environment and remittance (Sanfilippo-Azofra *et al.*, 2018; Fromentin, 2017).

#### 2.1.1.2 Measures of Financial Development

Several financial development assessment metrics have been established. As Krishnan (2011) has suggested, the most commonly used datasets are the World Bank's database of financial growth and structure through countries. These are specifically the World Finance Growth Metrics and the World Finance Database. As Krishnan (2011) points out a comprehensive database for financial system characteristics is provided through the Global Fiscal Development (GFDD) data base and selected financial system indicators are provided through the World Development Indicators Database. Again on the basis of Dorrucci, Meyer-Cirkel and Santabárbara data and procedure, the European Central Bank is also trying to measure financial development (2009) by developing composite indexes which measur domestic financial development. The Financial Development Index is another indicator of financial progress of the World Economic Forum. In 2009, the first annual financial progress study (FDR) was issued by the World Economic Forum. The research tests and reviews the components of financial structures development in different economies worldwide. It aims to allow countries to

compare and establish needs for changes across sections of their financial structures (Dorrucci et al. 2009).

In cross-border research, the two (2) most frequently used indicators of financial growth were domestic loans to the private sector, as a ratio of GDP and of the Money and almost the M2 as a ratio of GDP.



#### 2.1.1.2.1 Domestic Credit to Private Sector by Financial Intermediaries as a Ratio of GDP

Private sector domestic credit is the financial goods and services those financial intermediaries' offers to the private sector (World Bank, 2014). These services include grants, business lending and lawsuits on non-equity shares and acquisitions. Most analytical research used GDP as a measure of financial growth by domestic and other financial institution credit (Beck *et al.*, 2000; Beck *et al.*, 2003; Acemoglu *et al.*, 2005; Bhattacharyya and Hodler, 2014). This ratio tests the amount of activity or financial intermediation in the economy, as shown by Bhattacharyya and Hodler (2014), which indicates that a nation is financially underdeveloped if there are insufficient loans in comparison to the size of the economy open to the private sector.

#### 2.1.1.2.2 M2 to GDP

The amount of currency outside the banks, demand deposits other than those produced by the central administration and the period, reserves and foreign currency deposits of resident industries other than the central government, as shown by the World Bank (2014). The percentage of GDP is conveyed. Research has shown that M2 is the most frequently employed measures for financial growth (King and Levine, 1993; Calderon

and Liu, 2003; Akhter and Daly, 2009). A wider banking sector and greater financial intermediations indicate a higher ratio of M2 to GDP. The pattern in Africa over 1990-2012 is demonstrated below by the average M2 to GDP ratio.

### 2.1.2 The Concept of Foreign Capital Inflows

The general term foreign capital inflow refers to the expenditure made by investors of foreign companies in a region. Investing in cash, bonds and deposits may be rendered (Mowlaei, 2018). The multiple sources of FCIs include FDI, personal transactions, official development assistance (ODA) and international portfolio contributions. FDIs include direct foreign investment and remittances. This involves FDI, PR and ODA in the host (or recipient) countries as the primary source of FCIs (Mowlaei, 2018). The key concepts in this analysis are very important to establish such that each definition is used to prevent any uncertainty of perception, particularly for the flows of foreign capital seen in the diagram above (Figure 2.1). This is important to decide. It is important to remember that certain capital flows have been described using the widely utilized measure of variables for estimating with minor differences in empirical literature.

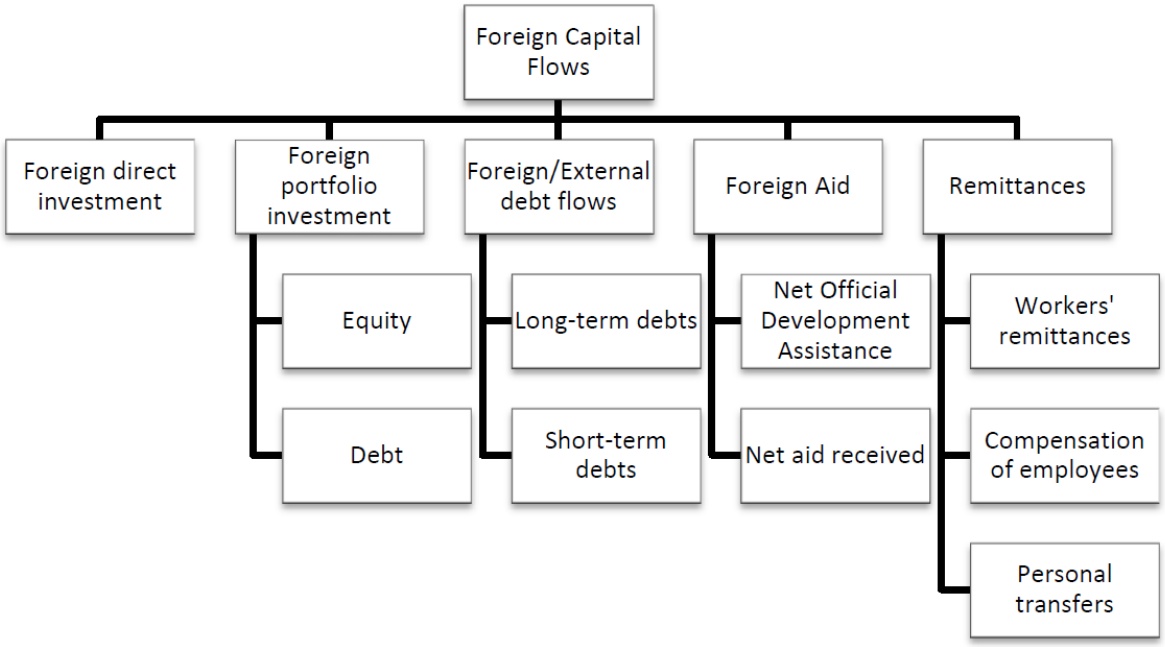


**Figure 2.1: Dimensions of Foreign Capital Flows**

Source: Researcher's compilation, 2020

### 2.1.2.1 Foreign Direct Investment

Foreign direct investment (FDI) is an influx of foreign investors' investment to permanently exert influence over the management of a company that normally accounts for at least 10% of voting stocks of an enterprise operating in an economy other than the investor. Normally that is the amount of capital stock. The balance of payments (World Bank, 2013) applies to the reinvestment of gains, other long-term and short-term money. As stock or flow, FDI may be calculated. The stock of FDI is the build-up of FDI over a period of time in an economy. The FDI's flow is what is produced in a year that can be either inward, that is, what happens in the year or outwards. The stock in the inner FDI affects us here.

Dunning and Lundan (2008) report that the FDI is typically embarked on by global companies, such as the quest for markets, the search for capital, information and the search for productivity, owing to multiple motives. In order to reach a broader sector, as MNEs embark on FDI, they are called FDI seekers. FDI is being utilized for the purpose of taping into the host locations' natural resources, such as crude, gold, iron ore, etc. The pursuit of expertise is regarded as embarking on the FDI in order to improve abilities by study and growth. The drive for productivity motivates the transfer of MNEs to areas where for example, they can increase manufacturing costs with cheaper electricity.

#### 2.1.2.2 Foreign Portfolio Equity Investment

Any investment in a global portfolio (FPI) is an investment in a particular economy considered to be passive debt portfolios, such as foreign companies, shares and other financial assets smaller than 10% of the voting capacity. FPI can be equity, comprising bonds, stocks, interest and related records that are normally referred to as equity possession. Selling shares and drawing off foreign portfolio investment in a nation is always simpler than FDI, which implies that foreign capital is a dynamic source of inflow.

#### 2.1.2.3 Foreign Debt Flows

Debts comprise debenture securities, shares, the exchange sector, negotiable debt instruments, and deposits at international banks. Federal and external debt flows shall be divided according to their original maturity for redemption into long-term and short-term debt flows:

**Long-term debt flows**

Long-term external debt is defined as debt that has an original or extended maturity of more than one year and that is owed to foreigners by residents of an economy and repayable in currency, goods, or services. The debt flows in form of long-term debts have to do with investment in bonds and other debt instruments.



**Short-term debt flows**

This is a form of foreign portfolio debt investment sometimes generally referred to as debt flows or foreign bank lending (World Bank, 2013). Short-term external debt is defined as debt that has an original maturity of one year or less.

**2.1.2.4 Foreign aid**

Foreign aid is one of the foreign capital flows to developing countries. It is an official grant or loan received by a country (mostly developing) for the promotion of economic development, wealth and growth. There are two major forms of foreign aid:

**Official Development Assistance**

Official Development Assistance (ODA) is the aid given to developing countries for development purposes. It can be from bilateral donors (given by a single donor country to a developing country) or multilateral institutions (given by a body or an organisation for example the World Bank or African Development Bank). It consists of disbursements of loans made on concessional terms (net of repayments of principal) and grants by official agencies of members of Development Assistance Committee (DAC), by multilateral institutions, and by non-DAC countries to promote economic

development and welfare in countries and territories in the DAC list of ODA recipients. It includes loans with a grant element of at least 25percent (World Bank, 2013).

**Official aid received**

This is the other type of aid given to a country to meet specific needs such as donations after a natural disaster, and aid for specific projects.



**2.1.2.5 Remittances**

Remittances are all transfers obtained by residents or non-residents from abroad in cash or form in a region. It is a rising external finance outlet and is a type of personal private capital. Total movements to a nation consist of three outlets called migrant transfers, workers' compensation and personal transfers.

**Workers'/Migrants remittances**

Remittances are classified as current private transfers from migrant worker's resident in the host country for more than a year, irrespective of their immigration status, to recipients in their country of origin (WDI, 2014).

**Compensation of employees**

Compensation of employees is the income of migrants who have lived in the host country for less than a year (WDI, 2014).

**Personal transfers**

Migrants' transfers are defined as the net worth of migrants who are expected to remain in the host country for more than one year that is transferred from one country to another at the time of migration (WDI, 2014).

Transfers from one or more family members living and working abroad to the rest of the family in their country of residence are known as private income transfers (Chami et al. 2005). A great deal of study has concluded that remittances alleviate insecurity by encouraging beneficiary families to maximize consumption and avoid such economic difficulties.



### 2.1.3 The Concept of Economic Growth

Many concepts of economic growth exist that are characterized as a constant increase in the volume of goods and services generated in a country in a year (Amine, 2003). Economic growth is often characterized as an improvement in gross domestic product or national total output, where the average person share of real earnings is raised, as follows:

Economic development not only implies an improvement in the gross domestic product, but would undoubtedly contribute to an increase in real individual income, that is to say the average pace of tax growth is beyond the rate of population growth. Whereas, the population grows at an increasing rate than the real total personal income remains stagnant. Considering the rise of local manufacturing, the average domestic product of a country is also rising (Mohamed and Eman, 2000).

Economic growth is a rise of actual personal income and not in money one where money income is the sum of money the consumer earns for production services over a given duration, typically one year, while real income relative to the rate of cash income in general terms is the quantity of products and services provided by the single person. Economic growth is the same as the amount of money income in a general price. When

the cash profits grow at a specified pace and the general price amount increases at the same rate, the overall salary stays fixed and the national quality of life would not be raised. And if cash income grows at a rate less than the overall price gain, the actual income of the person declines and life deteriorates. There will be no economic development without higher cash income prices than inflation (Abdulkader 2000).

Economic growth is a constant phenomenon, not a fleeting phenomenon; it can benefit the poor country, but that increase is not called financial progress, and will raise real income over a certain period of time. The economy must then develop in order to ensure that consumers have higher standards of products and services, such that a high level of life and a rising standard of living can be delivered. The faster economic development accelerates in the world, the sooner the standard of living rises and increases. To achieve this development, a country's economy must increase the country's productive capital.

## 2.2 Theoretical Literature Review

### 2.2.1 Endogenous Growth Theory

Endogenous growth is economic growth at a pace that is dictated by factors within the economic system, especially those that control technical knowledge opportunities and incentives. In the longer term the pace of economic growth as calculated by the rate of growth in the production per individual depends on the rate of growth of the Total Factor Productivity (TFP). Solow's (1956) and Swan' (1956) neoclassical development theory suggests that a technological method that is distinct and autonomous of the economical powers defines the pace of technical advancement. Neoclassical theory thus suggests that economists may take the long-term growth rate from beyond the economic structure exogenously.

Endogenous growth theory questions this neoclassical paradigm by suggesting channels that can affect external forces in terms of the pace of technical change and thus the long-term rate of economic growth. It continues with the discovery that technical advancements take the shape of new products, methods and markets that several of them emerge through industrial practices, by new developments. For example, as businesses learn how to manufacture more effectively from their practice, a higher rate of economic operation will improve the rate of process improvement by offering companies more manufacturing experience. As a consequence of a large number of innovations in RandD expenses by profited businesses, exchange, competitiveness, schooling, fiscal and intellectual property economic policies may impact the innovation rate by influencing privately-owned costs and advantages of research and development.

### 2.2.2 Neoclassical Theory of Capital Movement

Prior to the 1960s, a neoclassic fund financial philosophy was seen as the foundation for the dominant interpretation of foreign capital movements. Capital transfer in reaction to adjustments in the interest rate differentials under complete rivalry and no transaction costs (see Iversen (1936). Capital was then believed to be transacted by independent buyers and sellers and multinational corporations (MNEs) played no part; nor was a distinct foreign direct investment philosophy. The neoclassical theory of capitalism viewed global investment trends as one of the movements of the international element. The international flow of development variables, like foreign investment, is measured by various proportions of the principal inputs of production in different countries based on the Hecksher-Ohlin (H-O) model. International movement of resources means a migration of foreign assets from countries with comparatively large capital flows to countries with relatively scarce money. In other terms, money

effectively transfers from low marginal capital productivity countries to high marginal capital productivity countries (Bos *et al.*, 1974). The developers as well as the host countries will benefit from such foreign investment.

Increased revenue from foreign investment can support the host country to such an extent that the efficiency of investment in the form of profit or interest exceeds what foreign investors in the host country take out. But in the real world there are hardly any assumptions of neoclassical theory which require perfect competitiveness, complete labor and capital mobilization, no transaction costs, and excellent knowledge. Therefore the neoclassical theory did not understand the conduct of multinationals, in particular the bidirect movements of capital between capital-abundant countries, such as FDI among developing countries such as the USA and Japan. Furthermore, it has not differentiated FDI from other capital types.

### 2.2.3 FDI Capital Theory

MacDougall (1958) and subsequently Kemp (1964) presented Capital theory on the basis of expectations of a truly open economy for the very first time (Nayak and Choudhury 2014; Latorre 2016). This hypothesis shows that capital is moving from a low to a high return nation (Gamal 2008). FDI shifts from low-income capitalistic societies to capital-scaring countries with large returns. Investments are also drawn to international buyers whether the marginal return equal or exceeds the marginal expense.

The theory of FDI capital may describe the phenomenon of import substitution in developed countries such as Uganda. In the early 1960s, developed countries drew FDI because of the strong demand for consumer products such as sugar, safety matches and clothes. There was still demand because supplies to developed countries were the only supply of goods. In order to profit from the high returns that existed as early entrants on the industry, the FDI ventures were developed due to the shortage of necessary commodities. Horizontal integration is often connected to high returns (Caves 1982) as the MNEs are guided by the technology availability contributing to low marginal costs and predicted high returns.

The FDI Capital Hypothesis is not backed by observational studies such as those done by Agarwal (1980) and Bandera and White (1968). Next the equalization of capital return prices in developed countries is a crucial consideration for human capital. Secondly, return is insufficient as a requirement for FDI influxes to be clarified. Third, capital does not generally come from high income countries to low-income countries but according to Linder's principle of competing demand, from advanced countries to developing. In developed countries, FDI inflows are higher than in developing countries. The Capital Theory outlines the FDI's movement to Africa amid these objections. Africa was considered an agricultural continent that demanded society and growth during the conference of Berlin in 1884.

## 2.3 Empirical Literature Review

### 2.3.1 Studies on the relationship between Financial Development and Economic Growth

Durusu-Ciftci *et al.,* (2016) helped to explain the technically and empirically the role of financial development in economic growth. In the theoretical portion, we demonstrate that debts in credit markets and equity in capital markets are two long-term determinants of GDP per capita, with the creation of a Solow-Swan growth model increased by financial markets, as historically Wu *et al.,*(2010). For a panel with 40 nations, the overall association is calculated in the analytical part by means of the AGM and Typical Associated Effects (CCE), which permit cross-sectional dependencies, over the period 1989–2011. Although there are various cross-sector results in different nations, the panel analyzes suggest that both networks have a long-term positive impact on per capita healthy GDP and a slightly greater contribution from the credit markets. For political purposes we urge policy makers to put particular focus on enforcing policies that contribute to deepening financial markets, including structural and legal steps to reinforce the interests of borrowers and investors and regulation of contracts. Thus, economic growth would be accelerated by promoting the creation of the financial sector in a region.

Shahbaz et al. (2017) discusses the asymmetric relationship between energy use and economic growth through the integration into a production function of Indian economy from 1960Q1–2015Q4 of financial development, capital and labor. In order to explore the asymmetric cointegration of variables, the nonlinear autoregressive distributed lag test method is implemented. The causal relationship between the perceived variables is often evaluated by an asymmetric causality test. The findings suggest that the variables

are co-integrated whether asymmetries exist. Only negative shocks to the energy demand influence economic development, according to the asymmetric causality findings. In the same way global activity has an impact only on negative shocks to financial development. In comparison, the formation of capital induces economic development symmetrically. Finally, throughout the study era, the labor force and economic development in India have a neutral impact. These findings have also been addressed in the sense of development policies in India.

In relation to the recent financial crisis, Asteriou and Spanos (2018) utilized panel data from 26 European Union countries for the 1990 –2016 timeframe to assess the connection between financial development and economic growth. The methodological method contrasts two related sub-periods before and after the crises using multiplicative dummies. The findings indicate that economic development was encouraged before the recession, although after the crisis economic growth was slowed. Furthermore, the results indicate that the capital adequacy of banks supported depositors and encouraged financial market stability in 2008 and 2009.

Ibrahim and Alagidede (2017) analyze whether financing's economic growth impacts are dependent on survey splitting and threshold measurement techniques based on initial per capita income level, human capital levels and financial progress of 29 countries in sub-Saharan Africa over the period 1980–2014. Our findings indicate that although financial development is closely related to economic growth below certain projected thresholds, finance remains extremely insensitive to growth, while economic output for countries beyond these thresholds is dramatically affected. The key inference

is that higher finance level is an imperative requirement for long-term development and the total wealth and human resources level as well.

In the framework of a Vector Autoregression Model, Ono (2017) explores the relation between finance and growth in Russia, taking into account oil and foreign exchange rates. The duration studied is 1999-2008 (Sub-period 1) and 2009-2014 (Sub-period 2), respectively. In sub-period 1, findings indicate that economic activity is causal to money resources and bank loans, which means responses to demand. The findings for sub-period 2 suggest that Granger's economic growth induces the credit of a bank when the economic growth is not induced by money supply, which may be correlated with the drastic reduction of foreign-exchange intervention.

The debate between financial development and economic growth is reviewed by Assefa and Mollick (2017) in this text. We are based on the capital account and the scope of the African financial markets in comparison to previous studies that analyzed bank-related behaviour. From 1995 to 2010, we analyze 15 African countries utilizing static and interactive data panel approaches. Albeit the previous show mediocre aggregate outcomes, under the umbrella of the endogenous stock market capitalisation, Fund flows and FDIs still have a beneficial impact on economic development. These results enhance African countries' perception that their stock markets should be available to foreign investors and that FDI should be encouraged.

The effect of the financial progress on economic growth, based on the time series data in Cameroon, was examined by Puatwoe and Piabuo (2017). This study was conducted using three traditional financial development metrics (broad currency, deposit / GDP

and private sector domestic credit). The Auto Regressive Lag (ARDL) estimation methodology indicates that a positive association exists in the short term between money (M2), government spending and economic development, a negative short-term correlation between deposits in the banks, private investment and economic growth. Both financial development metrics, though have a strong and important effect on economic growth in the long term. This paper thus demonstrates that all financial development metrics have a positive and long-term effect on economic growth through binding checks. The plan therefore aims to advance the financial reforms in Cameroon so as to improve the sustainable growth development of the financial sector.

Rahman *et al.,* (2020) explore the effect on economic growth in Pakistan of financial progress by implementing the 1980–2017 Markov Switching Model. The findings based on the Markov model for two states confirm that Schumpeter believes finance is stimulating growth. The outcome indicates that economic growth in both high and low economic growth regimes in Pakistan is growing by financial progress. But the impacts of financial development on economic activity in the high-growth system are comparatively stronger. This means that the financial development of low growth and high growth systems is separate from that of global growth. In comparison, trade openness and government spending have a favourable influence on economic development, whereas the effects of labour on economic growth are negative.

### 2.3.2 Studies on the relationship between Foreign Capital Inflows and Economic Growth

The effect of foreign capital inflows on economic development in Nigeria for the 1980-15 period is analyzed by Ehigiamusoe and Lean (2019). It uses an Autoregressive

Distributed Lagged Test (ARDL) and finds a correlation between foreign capital inputs and development. In fact, investment in international portfolios has positive growth effects whereas foreign loans have a negative impact. Foreign direct investment and foreign assistance, however have no effect on development, indicating that Nigeria cannot rely on FDI and foreign aid as a catalyst for growth. Instead, enhanced expenditure in international portfolios or decreased foreign loans has favourable economic consequences.

Jawaid and Saleem (2017) analyze Pakistan's economic development by using time series data from 1976 to 2015 on international inflows such as direct expenditure, workers' remittances, and external debt. The findings of co-integration demonstrate that foreign capital inflows and economic development have an essential long-term connection to economic growth. Ordinarily lowest square findings reveal a large and detrimental influence on economic growth for foreign direct investment while a significant positive effect on economic growth is observed for remittances and external debts. The annual impact of three separate models is seen by the rolling windows review. The original findings have been verified by two separate sensitivity analyzes. The analysis is closed in the final segment and has political repercussions.

Sawalha *et al.*, (2016) are attempting to measure the effect of FDI and FPI on economic development in developing and emerging economies, on foreign capital inflow. It also searches for synergies in the enhancement of economic activity by these inflows. For the 21 developing and 19 emerging economies samples from 1980 through 2012, a cross-sectional time series development regression was employed. To prevent fake assumptions and apply robustness and inference to our observations, the GMM

estimators built for dynamic model panel data were used to resolve the econometric issue of heteroscedasticity error of uncertain functionality. Mixed findings for the study were observed in the study. FDI has a favourable and essential effect on the original FDI and FPI growth effects, while FPI has a negative and substantial impact on both samples. Furthermore, results for the population proxy support the classical paradigm, in which higher population growth will contribute to economic success while results for the saving proxy support the saving based phenomenon of growth.

It was also observed that the Market Capitalization (MC) proxy had a strong association in the two samples with economical performance, whereas the equity trading proxy findings show the positive impact of private capital inflows on growth only for the developing economies. The FPI findings suggest that there can be no need for a positive spill over impact in the sample economies to exist with the inclusion of FPI inflows. Interestingly, we noted that there was a positive contribution to the attractive capital of the host country through interactions between FPI and the Market Capitalization (MC), stock trading and growth. Study also found that FDI inflows rise in most economies' domestic wealth, thus improving economic development. For political repercussions, governments should be mindful that market liberalization policies will affect the inward net capital differently depending on the composition of the necessary capital flows and the degree of economic growth, in order to stimulate capital management through attracting FDI and FPIs. In the developing economies, the Interaction Term (FPI*MC) suggests a positive effect on the higher capital inflows of catching the threshold for stock market growth, such that the advanced equity markets appear to benefit most from the inflows of capital from FPI.

The influence of FDI and external debt on economic development and jobs in Egypt during the 1985-2014 era was monitored by Avouelfareg and Abed (2019). The analytical research consists of three stages: a systematic time series analysis, a six-sector panel model and a series of single-sector modelling. Either the time series or the panel versions are used to "auto-regressively distributed lagging approach." The findings demonstrate the poor positive impact on economic development and jobs in Egypt of foreign investment. Outside debt is having an insignificant effect in the aggregate model on economic development and employment. Sectional research indicates that the influence on production of FDI in financial, tourism and other services is quite different, whereas in agriculture, construction and manufacturing the effect is negligible. The findings are important.

Mowlaei (2018) has examined the effect on economic growth of 26 major African countries of the various types of FCIs, i.e., FDI (foreign direct investment), manpower transfers (PR) and Official Development Assistant (ODA). The paper uses the econometric methodology of the Pooled Mean Group (PMG) to test heterogeneity panels between 1992 and 2016. The findings suggest that in long- and short-term economic development is influenced by all three types of FCI. The PR has the most long-term and short-term effects on economic development. The study proposed that policymakers need to adopt and enforce suitable fiscal, monetary and commercial policies to establish and enhance an atmosphere in which FCIs can be drawn to domestic investment as an additional source.

Adusah-Poku and Bekoe (2018) address the effects on Ghana's economic development of three of the four sources of international inflows (including foreign assistance, direct foreign contributions and personal funds). The research uses the ARDL Bounds co-integration testing method focused on annual time series data in Ghana between 1980 and 2012. The study indicates that all three sources of foreign capital inflows have both short-term and long-term positive and important impacts on economic development. Furthermore the findings indicate that international assistance is the key factor both in the short and long term of Ghana's economic development, of all the three sources of foreign capital inflows. In order to achieve its maximum effect on growth, this study advises the production and execution of good tax, monetary and trade policies to complement the country's foreign aid flow.

## 2.4 Conceptual Framework

The correlation between foreign capital inflows and economic growth is explored in a variety of ways. While some reports indicate that the influx of foreign capital has a beneficial influence on economic development, another part of the literature has found that the inflow of foreign capital has a detrimental effect on economic growth. In order to analyze the capital inflows of development in Malaysia, Indonesia, Thailand, the Philippine and South Korea, for example, Vo (10) employed a Panel Instrumental Vector Generalized System of Moments (IV-GMM). This demonstrates that the flows of capital in these countries fuel productivity. The analysis of foreign capital inflows from 1981 to 2010 linked to economic development in the Western African Monetary Region (WAMZ) was undertaken in Orji *et al.,* (2014). The analysis used the unrelated regression calculation approach and noticed that ODA had a positive influence on economic growth in Ghana and Sierra Leone while FDI improve growth in Gambia and

Nigeria. In addition, the research calculated the influence of FDI, portfolio expenditure, official development assistance, and growth remittance.

Yet another line of research has found the detrimental impact on economic development of global capital influxes. Agbloyor et al. (2014), for instance, used IV-GMM in an analysis of the correlation from 1990 to 2007 between capital inflows and development in Africa. The study broke down the international capital movement into FDI, investment in portfolios and private debt flow, and found a negative impact on economic growth for each aspect of foreign capital inflow. The study showed that if strong financial institutes were created, the negative impact of capital flows could be converted into positive ones. In order to research the relation between the flow of capital and economic growth in Ghana, Klobodu and Adams (2016) used Autoregressive Distributed Lag (ARDL). The analysis shows that the short and long-term movements of money, such as FDI, foreign debt and assistance have negative effects on economic development using a collection of time data from the era 1970-16. The report concluded that the effect of capital flows on economic development in Africa was underestimated. Based on the above, it is hypothesised that:

**H1: Foreign capital inflows has a significantly positive effect on economic growth**

In addition, attention has been given to the correlation between financial development and economic growth. For instance, in order to ascertain the impact of financial progress on economic growth, Valickova *et al.*, (2015) conducted 67 studies. The study found that economic growth has a strong and important effect on financial stability. In order to analyze the relation between financial development and economic growth between 1989 and 2011, in forty countries the AMG and common corresponding

results (CCE) were utilized by Durusu-Ciftci *et al.*, (2017). The analysis observed a positive and important influence on economic growth in financial changes. Because of its economic efficiency, Beck and Levine (2004) researched financial markets and banks. Using panel data from 1976-98, they observed that the financial effect of capital markets and banking on economic development was optimistic and important.



However several reports have shown that financial development and economic growth have a detrimental to no association. For instance, in the Middle East and North African (MENA) area, Naceur and Ghazouani (2007) explored the ties between financial development and economic growth in a complex model panel with GMM estimators. The findings of the analysis indicate that the finance, stock market development and growth are not strongly related. The ties between financial progress and growth were studied in 52 mid-income countries during the cycles of 1980–2008, by Samargandi, Fidrmuc and Ghosh (2015). The research used the cumulative mean estimate approach and observed an inverse association between economic and financial growth. The analysis concluded that the impact of finance production on economic growth is detrimental. Based on the above, the following hypothesis was made:

**H2: Financial Development significantly improves economic growth**

**H3: Financial development moderates the relationship between foreign capital inflows and economic growth**

The framework below is used to explain the relationship between the variables in the study in accordance with the conceptual literature review:

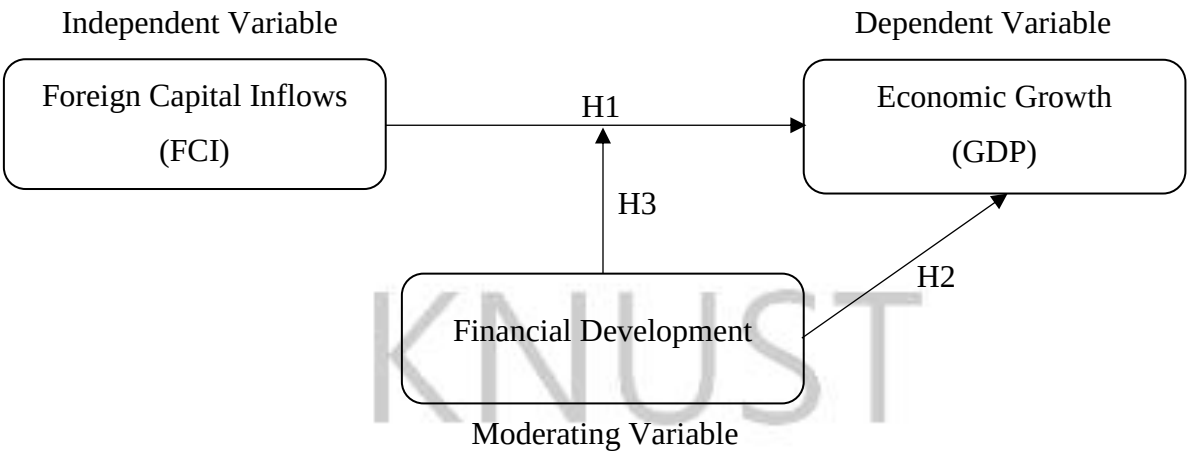


**Figure 2.2: Conceptual Framework.**

Source: Researcher's Construct, 2020

# CHAPTER THREE

# METHODOLOGY

## 3.0 Introduction

This chapter presents the data and methodology applied in this study. The chapter is organised in five main sections; Section 3.1 presents the research design that the study follows; Section 3.2 provides the population of this study, Section 3.3 which follows the population, presents the sample size and sampling technique used in this study. Section 3.4 talks about the data used for this study. In that section, the source of data, frequency of data and the time period of the data are presented. In Section 3.5, the data analysis method or methodology used for this study was presented. This includes the model specification and a table presenting the summary of variables and the expected relationship. Section 3.6 presents the diagnostics test performed before the using the data for this study.

## 3.1 Research Design

This study is aimed at empirically examining the moderating role of foreign capital inflows in the relationship between financial development and economic growth among emerging African countries. In order to achieve this objective, the study uses an explanatory research design and a quantitative approach to the study. The explanatory research design is chosen because it would help the study explain the relationship that exists among the individual variables being researched. The quantitative research method is also adopted. The quantitative research approach would allow for a systematic, logical and organised analysis of numerical data so as to draw factual conclusions that are supported by findings from the data.

### 3.2 Data and data source

The study utilizes panel data from 2004 to 2018, combined with the selected sample of 35 countries, this amounts to a total of 525 observations. The large observation is used to provide higher degrees of freedom which could subsequently affect the accuracy of the estimated regression model. Following the study of (Mowlaei, 2018), the moderating variable, foreign capital inflows was the foreign direct investment to GDP growth rate inflows. The dependent variable, economic growth was measured using the GDP growth rate of the country whiles financial development was measured using credit provided by financial sector to the private sector (% of GDP) as a proxy. Relative to the source of the data, data on economic growth and financial development were obtained from World Development Indicators Database of the World Bank website.

### 3.3 Sample

The sample for this study is 35 emerging economies identified as per the classifications of the World Bank. The observed countries include; Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verdi, Cameroon, Central African Republic, Comoros, Congo Republic, Congo Democratic, Cote d'Ivoire, Algeria, Egypt, Gabon, Ghana, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Mali, Morocco, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, South Africa, Zambia, Uganda, Tunisia, Togo, Tanzania and Sudan. These countries were selected purposefully due to the availability of data on the variables being used in this study. This sampling technique would help the scholar to use only countries whose data were available within the period of the study.

### 3.4 Model Specification

This study adopts the model according to Mowlaei (2018) specified as follows:

$$Y\ (GDP)\ it\ =\ \beta 0\ +\ \beta 1\ (FinDev)it\ +\ \varepsilon it \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ 1$$

$$Y\ (GDP)\ it\ =\ \beta 0\ +\ \beta 1\ (FinDev)it\ +\beta 2\ \ (FCI)it\ +\ \varepsilon it \ldots\ldots\ldots\ldots\ldots\ldots\ 2$$

$$Y\ (GDP)\ it\ =\ \beta 0\ +\ \beta 1\ (FinDev)it\ +\beta 2\ \ (FCI)it\ +\ \beta 3\ (FinDev\ \times\ FCI)it\ +$$

$$\varepsilon it \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ 3$$

From the model, FinDev represents Financial development, GDP represent economic growth, FCI represents foreign capital inflows and $(FinDev \times FCI)_{it}$ is the interaction between stock market development and foreign capital inflows. The data would be analysed using Stata v.15. The study also controls for inflation and gross national expenditure in all three equations.

### 3.5 Estimation Strategy

The Hausman test was used in order to decide between fixed effects (FE) and random effects (RE) estimates, under the full set of random effects assumptions. The study uses the generalized model of moments (GMM) estimation method to investigate the impact of stock market development in the finance-growth nexus among the selected sample. The GMM estimation would take care of the potential FDI endogeneity issue that would arise in the panel.

### 3.6 Diagnostics Test

In order to be able to use the data for this study, there is an assumption that has to be met by the data depending on the kind of analysis to be performed. The section is dedicated to explaining the various preliminary tests that were conducted on the data

before use. A unit root test tests whether a time series variable is non-stationary and possesses a unit root. The null hypothesis is generally defined as the presence of a unit root and the alternative hypothesis is stationarity, trend stationarity or explosive root depending on the test used. To investigate the stationarity of the series used, we use the unit root tests on panel data.



Autocorrelation denotes the connection between past and future values in a series of time, making time series probable and can obscure the identification of significant relationships and covariates (Yaffee, 2003). It was tested using the Wooldridge autocorrelation test. Pearson correlation coefficient and variance inflation factor (VIF) was used. A VIF below 10 is acceptable. Ordinary least squares have the assumption that the error term's observations are extracted from a distribution that has a constant variance. It was tested using the Modified Wald test for GroupWise heteroscedasticity.

### 3.7 Variables Description and Measurement

This section of the chapter three describes the variables used in the study, which are the dependent, independent, moderating and control variables. It further presents how these variables are measured and the expected sign of their coefficients.

#### 3.7.1 Dependent Variable

##### 3.7.1.1 Economic Growth

Economic growth is an increase in the production of economic goods and services, compared from one period of time to another, often characterized as an improvement in gross domestic product or national total output (Amine, 2003). Economic growth was measured using GDP growth rate, the data was obtained from World Bank Database.

### 3.7.2 Independent Variable

#### 3.7.2.1 Financial Development

Financial development describes all factors that contribute to effective financial intermediation and markets as well as profound and comprehensive access to capital and monetary administrations in the Global Financial Development Report (Schwab, 2011). Financial development was measured using credit provided by financial sector to the private sector (% of GDP) as a proxy. This data was also obtained from the World Bank website.

### 3.7.3 Moderating Variable

#### 3.7.3.1 Foreign Capital Inflows

Foreign capital inflow refers to the expenditure made by investors of foreign companies into another region, being it in cash, bonds and deposits (Mowlaei, 2018). In this study, foreign capital inflow was measured using the foreign direct investment rate as a percentage of GDP received in the host country. This data was also obtained from the World Development Indicators Database of the World Bank website.

### 3.7.4 Control Variables

#### 3.7.4.1 Inflation

Inflation is a measure of the rate of rising prices of goods and services in an economy. Inflation can occur when prices rise due to increases in production costs, such as raw materials and wages (World Bank, 2020). Inflation is measured by the consumer price index and the data is obtained from the World Bank website.

### 3.7.4.2 Gross National Expenditure

Gross national expenditure is the sum of household final consumption expenditure, general government final consumption expenditure (formerly general government consumption), and gross capital formation (World Bank, 2020). This is measured using the GDP percentage of gross national expenditure as provided on the website of the World Bank.



**Table 3.1: Variables and expected sign of coefficient**

| Variable | Expected Sign |
|---|---|
| **Foreign capital inflows** | +(Alfaro *et al.*, 2004; Hayat, 2019) |
| **Financial Development** | + (Agbloyor *et al.*, 2014) |
| **Inflation** | - (Adaramola and Dada, 2020) |
| **Gross national expenditure** | +/- (Amusa and Oyinlola, 2019; Nguyen, 2019) |

# CHAPTER FOUR

# RESULTS AND DISCUSSIONS

## 4.0 Introduction

In this chapter, the study presents and analyses the findings of the research. The results are presented in tables. The analysis covers the descriptive statistics of the data, preliminary testing of the data and the various objectives are analysed using the multiple regression analysis. Section 4.1 present the preliminary analysis conducted before using the data for the study, Section 4.2 presents the descriptive statistics of the variables, section 4.3 presents the model specification and post specification tests, 4.4 present the analysis of the data and Section 4.5 discusses the findings of the study based on the analysis.

## 4.1 Preliminary Analysis

Since times series data suffers from autocorrelation and cross-sectional data from heteroscedasticity. In order to achieve the best results from the regression analysis, the tests performed in this section includes the trend analysis, correlation, and panel unit root test.

### 4.1.1 Trend analyses

The graph showing the trend of average FDI inflows, GDP growth, financial development, Inflation, and gross national expenditure are presented respectively. The trend shows various variations in all the variables however, financial development seems to be on the increase among the panels selected for this study.

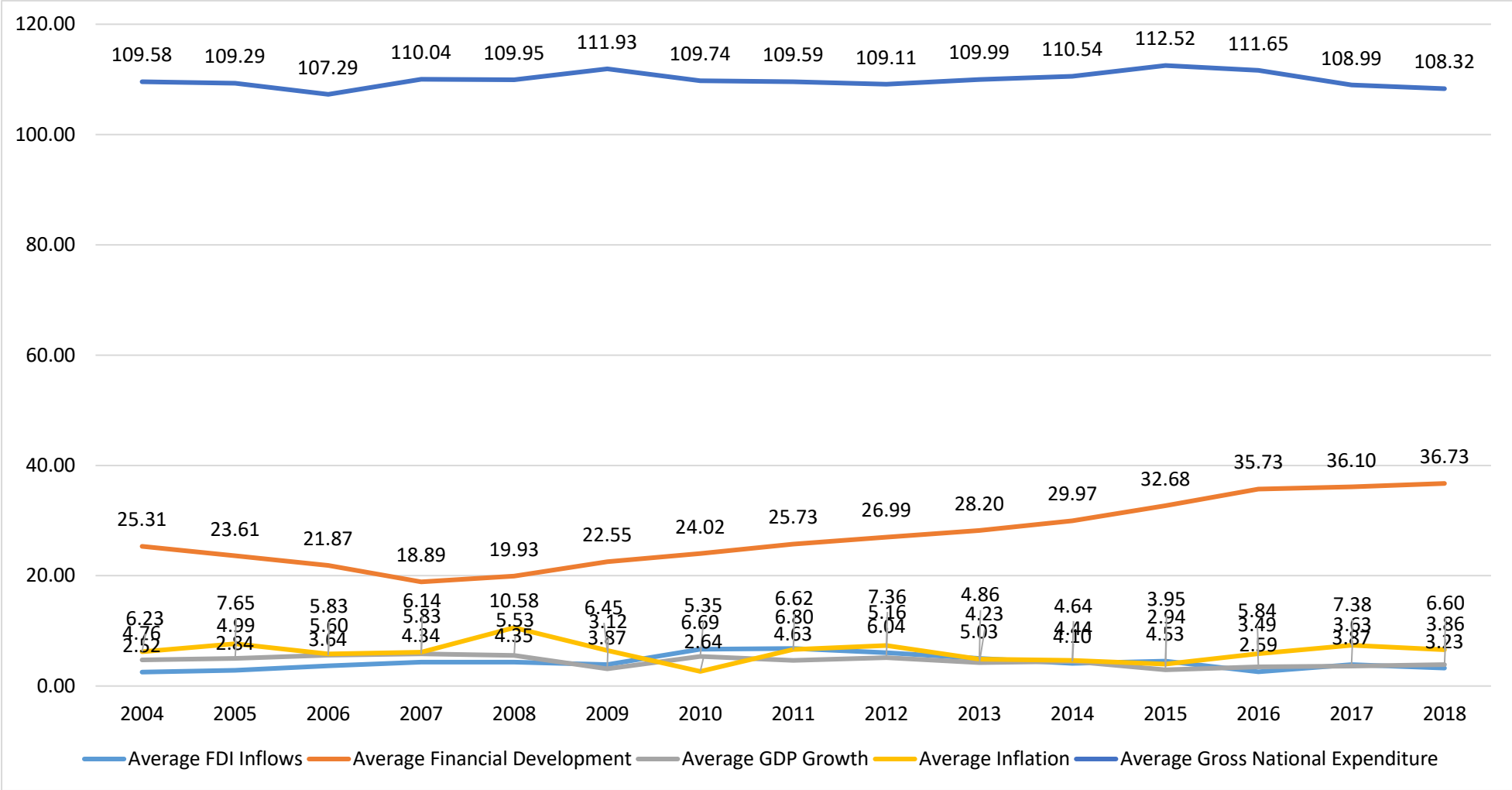


**Figure 4.1: Trend of Average FDI inflows, Financial Development, GDP growth, inflation and Gross National Expenditure in Africa**

### 4.1.2 Correlation Analysis

The study observes from table 4.1 that there exists no perfect correlation between the variables used in the study. The Pearson correlation analysis was used to test for the correlation in the variables.



**Table 4.1: Correlation Analysis**

| | FCI | FINDV | GDP | INFL | GNE | FCI*FINDV |
|---|---|---|---|---|---|---|
| **FCI** | 1 | | | | | |
| **FINDV** | -0.0376 | 1 | | | | |
| **GDP** | 0.0888 | -0.1164 | 1 | | | |
| **INFL** | 0.0121 | -0.0476 | 0.0609 | 1 | | |
| **GNE** | 0.2418 | 0.1598 | 0.0084 | 0.0437 | 1 | |
| **FCI*FINDV** | 0.7614 | 0.4452 | 0.0354 | -0.0236 | 0.3520 | 1 |

Source: Field Study, 2020

### 4.1.3 Panel unit root

Harris-Tzavalis unit root test, which assumes that the number of panel tends to infinity whole the number of time periods is fixed, was used to test for whether the variables in the entire dataset of 35 countries and 15 years contains unit root. From Table 4.2 below, we find overwhelming evidence against the null hypothesis of a unit root and therefore conclude that FCI, GDP, Inflation, Gross national expenditure and the moderating variable are stationary at level. However, we find strong evidence in favour of the null hypothesis of unit root and therefore conclude that, financial development contains unit root. To correct this, the first difference of the variable was taken to make them stationary at first difference.

**Table 4.2: Panel Unit Root Test**

| Variable | Statistic | z | p-Value | Conclusion |
|---|---|---|---|---|
| FCI | 0.5207 | -8.9663 | 0.0000 | Panels are stationary |
| FinDev | 0.8435 | 0.9535 | 0.8298 | Panels contain unit roots |
| FinDev (d1) | 0.1510 | -18.7416 | 0.0000 | Stationary at First Difference |
| GDP | 0.2218 | -18.1529 | 0.0000 | Panels are stationary |
| Inflation | 0.1730 | -19.6539 | 0.0000 | Panels are stationary |
| GNE | 0.6322 | -5.5399 | 0.0000 | Panels are stationary |
| FCI*FinDev | 0.4513 | -11.1012 | 0.0000 | Panels are stationary |

Source: Field Study, 2020

## 4.2 Descriptive Statistics

This section of the chapter is dedicated to describing the data used for the study. The descriptive statistics tables containing the minimum, maximum, mean and standard deviation of the data is used to describe the data in this section.

From table 4.3, it can be observed that FCI has a minimum of -6.10498 and maximum of 103.3374 with a mean of 4.29 which implies that the FCI to the selected countries was 4.29. The study observes that financial development as a percent of GDP was at a minimum of -18.44 and a maximum of 120.54 with an average of 27.21. This implies that financial development among the selected panel was relatively below 100 percent of GDP growth. Furthermore, GDP was found to have an average of 4.50 among the selected panels whiles inflation and gross national expenditure were all recording means of 6.18 and 109.90 respectively.

**Table 4.3: Descriptive Statistics on Variables**

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|
| **FCI** | 525 | 4.297406 | 0.3806067 | -6.10498 | 103.3374 |
| **FinDev** | 525 | 27.21977 | 1.171097 | -18.44063 | 120.5451 |
| **GDP** | 525 | 4.504004 | 0.162456 | -36.39198 | 20.71577 |
| **Inflation** | 525 | 6.185813 | 0.3220484 | -60.4964 | 63.29251 |
| **GNE** | 525 | 109.9006 | 0.9517342 | 59.63988 | 261.4278 |

Source: Field Study, 2020



### 4.3 Analysing the results of interrelationship between foreign capital inflows, financial development and economic growth in Africa

In order to determine which, model to use for the analysis of the panel data, the LM test and F-tests were conducted in all five models in order to ascertain whether the appropriate model would be the pooled OLS, random-effect or the fixed-effect regression model.

**Table 4.4: LM and F-Tests on Variables**

| | Test | Statistics | p-value | Conclusion |
|---|---|---|---|---|
| **Model 1** | LM Test | 14.44*** | 0.0001 | Random-Effect |
| | F-Test | F(34,487)=2.13*** | 0.0003 | Fixed-Effect |
| **Model 2** | LM Test | 11.80*** | 0.0003 | Random-Effect |
| | F-Test | F(34,452)=2.02*** | 0.0008 | Fixed-Effect |
| **Model 3** | LM Test | 13.63*** | 0.0001 | Random-Effect |
| | F-Test | F(34,451)=2.11*** | 0.0004 | Fixed-Effect |
| **Model 4** | LM Test | 13.35*** | 0.0001 | Random-Effect |
| | F-Test | F(34,450=2.10*** | 0.0004 | Fixed-Effect |

Source: Field Study, 2020

Since the LM and F-tests supports both the random and fixed effect models, the study uses the Hausman test to determine which model to use whether the random or the fixed effect. Based on the analysis, the study concludes that the random effect is the most appropriate model.



**Table 4.5: Hausman Test**

| | Test | Statistics | p-value | Conclusion |
|---|---|---|---|---|
| **Model 1** | Hausman | 4.14 | 0.2469 | Random-Effect |
| **Model 2** | Hausman | 3.32 | 0.3453 | Random-Effect |
| **Model 3** | Hausman | 4.99 | 0.2882 | Random-Effect |
| **Model 4** | Hausman | 4.94 | 0.4232 | Random-Effect |

Source: Field Study, 2020

**Table 4.6: Variance Inflation Factor Tests**

| | | VIF | 1/VIF |
|---|---|---|---|
| Model 1 | FCI | 1.06 | 0.941550 |
| | Inflation | 1.00 | 0.998084 |
| | GNE | 1.06 | 0.939886 |
| | | 1.04 | |
| Model 2 | FinDev(d1) | 1.03 | 0.967858 |
| | Inflation | 1.01 | 0.993657 |
| | GNE | 1.03 | 0.969304 |
| | | 1.02 | |
| Model 3 | FCI | 1.07 | 0.937279 |
| | FinDev(d1) | 1.03 | 0.967840 |
| | Inflation | 1.01 | 0.993539 |
| | GNE | 1.10 | 0.909804 |
| | | 1.05 | |
| Model 4 | FDI | 2.48 | 0.403382 |
| | FinDev(d1) | 1.03 | 0.967218 |
| | FCI*FinDev | 2.60 | 0.385025 |
| | Inflation | 1.01 | 0.990366 |
| | GNE | 1.15 | 0.868858 |
| | | 1.65 | |

Source: Field Study, 2020

### 4.4 Results of Random-Effect GLS Regression Analysis

After proving that the data for the study meet all the assumptions for panel data, the data were analysed and the analysis are presented in this section. The section is sub-divided into four sections with each section being dedicated to the analysis of each model in the study.



**Table 4.7: Summary of the Random Effect Regression Analysis**

| | Model 1 | Model 2 | Model 3 | Model 4 |
|---|---|---|---|---|
| Constant | 4.471116*** | 5.023815*** | 5.182361*** | 4.990168*** |
| | (0.000) | (0.000) | (0.000) | (0.000) |
| FCI | 0.0441611** | | 0.0469165** | 0.0711203*** |
| | (0.033) | | (0.028) | (0.009) |
| FinDev(d1) | | -0.1363544*** | -0.1395055*** | -0.1388245*** |
| | | (0.001) | (0.000) | (0.000) |
| FCI*FinDev | | | | -0.0012837 |
| | | | | (0.503) |
| Inflation | 0.0144626 | -0.003827) | -0.0026699 | -0.0042766 |
| | (0.674) | (0.909) | (0.937) | (0.899) |
| GNE | -0.0022416 | -0.0036669 | -0.0070392 | -0.0048914 |
| | (0.808) | (0.705) | (0.550) | (0.721) |
| R-Squared | 0.0106 | 0.0433 | 0.0508 | 0.0528 |
| Obs | 525 | 490 | 490 | 490 |

Source: Field Study, 2020

### 4.5 Discussion of Findings

In this section, the findings of the study are discussed according to results obtained from the analysis of the data. The discussion is done according to the objectives of the study, therefore section 4.4.1 presents the discussion on the effect of development on economic growth in Africa. The section 4.4.2 discusses the effect of foreign capital

inflows on economic growth of emerging African economies whiles section 4.4.3 discusses the moderating effect of foreign capital inflows in the financial development-growth nexus among emerging African countries.

### 4.5.1 Evaluating the effect of Financial Development on Economic Growth

The first objective of the study was to examine the effect of financial development on economic growth in the selected African economies. The analysis was presented in section 4.4.2. The study controlled for Inflation and gross national expenditure in this analysis. From the analysis, the study found that financial development has a coefficient of -0.1363544 and significant at .05 significant levels. This indicates that financial development in this study has a negative effect on economic growth of the 35 African economies. This indicates that a unit increase in FinDev(d1) would be expected to result in a significant -0.1363544-unit decrease in economic growth of the country.

This negative effect of financial development on economic growth confirms the findings of Arcand et al. (2012) who examined financial development on economic growth among 100 developed and developing countries. In their study, they found that Finance starts having a negative effect on output growth when credit to the private sector reaches 100% of GDP. The results are consistent with the ‘‘vanishing effect’’ of financial development. This is evident in the mean of the financial development of this sample being way below 100 percent of GDP growth. This is also confirmed by Law and Singh (2014) who showed that the level of financial development is beneficial to growth only up to a certain threshold; beyond the threshold level further development of finance tends to adversely affect growth. These findings reveal that more finance is

not necessarily good for economic growth and highlight that an ‘‘optimal’’ level of financial development is more crucial in facilitating growth.

### 4.5.2 Analysing the effect of Foreign Capital Inflows on Economic Growth

The second objective of this study was to examine the effect of foreign capital inflows on economic growth among the selected 35 countries. The study controlled for the effects of inflation, and gross national expenditure in the analysis. The study found relative to this objective that FCI has a parameter estimate of 0.0441611 and found to be significant at .05 significant level (p=0.033). This shows that foreign capital inflows have a positive effect on economic growth among the selected countries. Specifically, a unit increase in foreign capital inflows would be expected to result in a significant 0.0441611-unit increase in economic growth of the country.

This positive effect of foreign capital inflows on economic growth is confirmed by the studies of Ehigiamusoe and Lean (2019) who examined the impact of foreign capital inflows on economic growth in Nigeria for 1980–2015 period and found that an increase in foreign portfolio investment or reduction in foreign loans has beneficial effects on the economy. It is also consistent with the findings of Adusah-Poku and Bekoe (2018) who examined the impact of three of the four forms of foreign capital inflows (which include foreign aid, foreign direct investment and personal remittances) on economic growth in Ghana. Their study found that all the three forms of foreign capital inflows, foreign aid is the main driver of economic growth in Ghana both in the short and long run.

### 4.5.3 Examining the Moderating Effect of Foreign Capital Inflows

The final objective of the study was to examine the moderating role of foreign capital inflows in the relationship between financial development and economic growth. The study controlled for inflation and gross national expenditure in this model. However, to successfully examine the moderating effect, the analysis was first conducted in model 3 without the moderating variable. From the model, it was found that the parameter estimate of FCI was 0.0469165 and significant at .05 significant level (p=0.028). We also found that, the coefficient of FinDev was -0.1388245, also significant at .05 significance level (p=0.0.000).

In the next model which examines the moderating effect of foreign capital inflows, the study found that the parameter estimate for FCI was 0.0711203, and significant at .05 significance level (p=0.009) and coefficient of FinDev was -0.1388245, significant at .05 significant level (p=0.000). However, the interaction between FCI and FinDev was -0.0012837, and insignificant at .05 significance level (p=0.503). This implies that the interaction between FCI and FinDev has no significant effect on economic growth. Therefore, it can be concluded that foreign capital inflows do not moderate the relationship between financial development and economic growth.

## 4.6 Diagnostics test

### 4.6.1 Autocorrelation

The Wooldridge Test for autocorrelation was used to test the models for autocorrelation. From table 4.8, it is evident that there exists first order autocorrelation in all four models tested. This was corrected using the robust standard errors which are autocorrelation consistent for the regression analysis

**Table 4.8: Wooldridge Test of Autocorrelation**

| | Test | F-Statistics | P-value | Conclusion |
|---|---|---|---|---|
| **Model 1** | Wooldridge Test | 5.206** | 0.0289 | First Order Autocorrelation |
| **Model 2** | Wooldridge Test | 6.300** | 0.0170 | First Order Autocorrelation |
| **Model 3** | Wooldridge Test | 6.185** | 0.0180 | First Order Autocorrelation |
| **Model 4** | Wooldridge Test | 6.177** | 0.0180 | First Order Autocorrelation |

Source: Field Study, 2020



### 4.6.2 Heteroscedasticity

Breusch-Pagan / Cook-Weisberg test for heteroscedasticity was used to test the existence of heteroscedasticity. From the figure 4.8 below, we find overwhelming evidence to accept the null hypothesis of homoscedasticity and therefore we conclude that Model 1 is Homoskedastic. However, we find overwhelming evidence against the null hypothesis of homoscedasticity and we therefore conclude that models 2, 3 and 4 suffers from heteroscedasticity. To correct the issue of incorrect standard errors so that the interval estimates and hypothesis tests are valid we use the robust standard errors, which are heteroscedasticity-consistent for the regression analysis.”

**Table 4.9: Breusch-Pagan / Cook-Weisberg test for heteroscedasticity**

| | Chi2 Statistics | | Conclusion |
|---|---|---|---|
| Model 1 | 0.91 | 0.3403 | homoskedastic |
| Model 2 | 47.47*** | 0.0000 | Heteroscedastic |
| Model 3 | 41.53*** | 0.0000 | Heteroscedastic |
| Model 4 | 38.89*** | 0.0000 | Heteroscedastic |

Source: Field Study, 2020

### 4.6.3 Multicollinearity

Multicollinearity among the variables was checked using the Variance Inflation Factor (VIF), which assess whether the factors are correlated to each other, which could affect the p-values and reliability of the model. Table 4.8 indicates that, the observable VIFs are all below a level of 5, this presents strong evidence to suggest that there exists no multicollinearity in all 4 models.

# CHAPTER FIVE

# SUMMARY, CONCLUSION AND RECOMMENDATIONS

## 5.0 Introduction

In this chapter, the findings of the study are summarised, conclusion are made based on the findings of the study, in addition to recommendation for investors, countries and policy makers. The chapter is divided into four main sections, Section 5.1 presents a summary of the findings of the findings of the study, and Section 5.2 is dedicated to conclusion that can be made based on the findings of the study. Sections 5.3 and 5.4 provide recommendations for policy makers, investors, governments, and future studies based on the findings of the study.

## 5.1 Summary of Findings

The first objective of the study the effect of financial development on economic growth in the selected African economies while controlling for Inflation and gross national expenditure in this analysis. From the analysis, the study found that financial development has a negative effect on economic growth of the 35 African economies. This effect was found to be significant, indicating that a unit increase in financial development would be expected to result in a significant -0.1363544-unit decrease in economic growth of the country. This negative effect of financial development on economic growth confirms the findings of Arcand et al. (2012) who examined financial development on economic growth among 100 developed and developing countries. In their study, they found that Finance starts having a negative effect on output growth when credit to the private sector reaches 100% of GDP. These findings reveal that more finance is not necessarily good for economic growth and highlight that an ‘‘optimal’’ level of financial development is more crucial in facilitating growth.

The second objective of this study was to examine the effect of foreign capital inflows on economic growth among the selected 35 countries whiles also for the effects of inflation, and gross national expenditure in the analysis. The study found relative to this objective that foreign capital inflows have a positive effect on economic growth among the selected countries. Specifically, a unit increase in foreign capital inflows would be expected to result in a significant 0.0441611-unit increase in economic growth of the country. This is confirmed by the studies of Adusah-Poku and Bekoe (2018) who found that all the three forms of foreign capital inflows, foreign aid is the main driver of economic growth in Ghana both in the short and long run.

The final objective was to examine the moderating role of foreign capital inflows in the relationship between financial development and economic growth. The study controlled for inflation and gross national expenditure in this model. The interaction between FCI and FinDev was -0.0012837, and insignificant at .05 significance level (p=0.503). This implies that the interaction between FCI and FinDev has no significant effect on economic growth. Therefore, it can be concluded that foreign capital inflows do not moderate the relationship between financial development and economic growth.

## 5.2 Conclusion

A large body of evidence suggests that financial sector development plays a huge role in economic development. Countries with better-developed financial systems tend to grow faster over long periods of time, and a large body of evidence suggests that this effect is causal: financial development is not simply an outcome of economic growth; it contributes to this growth. However, the arguments on this effect are mixed, for this reason; this study is designed to examine the moderating role of foreign capital inflows

in the relationship between financial development and economic growth providing evidence from emerging African economies. In order to achieve the above, the study uses a sample of 35 African countries across 15 years from 2004 to 2018. The study uses the panel data regression, specifically; the random effect model was used for this analysis. Based on the findings of the study, it can be concluded that financial development has a negative effect on economic growth among the selected countries. The study further found that foreign capital inflows in the form of foreign direct investment has a positive effect on economic growth among these African countries. Despite this however, the study found that foreign capital inflows do not moderate the relationship between financial development and economic growth among these countries. The study therefore concludes that more finance is not necessarily good for economic growth and highlight that an ‘‘optimal’’ level of financial development is more crucial in facilitating growth.

### 5.3 Recommendations and policy implications

Based on the above findings, the following recommendations are made to investors, institutions, governments, and policy makers alike:

The study recommends that countries in Africa should put in policies and measures that could help them attract more foreign direct investments into the country in order to help promote their economic growth since foreign capital inflows is found in this study to affect economic growth positively. Furthermore, the study recommends that countries with low financial development to GDP ratios should consider expanding private sector credit to citizens and put in place measure to help these citizens to use the funds in ways that would benefit the economic. This is because the study found that financial

development rates among the selected countries in this study was below 100 percent of GDP growth.

Finally, the study recommends that institutions should consider improving the quality of government institutions in their countries in order to help improve the trust that individuals have in the country in order to invest in these countries with the aim of promoting economic growth.



### 5.4 Suggestions for further research

For future studies, we recommend that, scholars researching this field could expand the scope of the study to cover all African countries in order to have a conclusive view of the subject matter.

Future studies could also compare the trend in African studies to the trend in other continents in order to give a better view of how foreign capital inflows affect financial development and economic growth.

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