FOREIGN CAPITAL FLOW AND STOCK MARKET PERFORMANCE, AND ECONOMIC GROWTH IN SUB-SAHARA AFRICA.

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December, 2019

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BEING A THESIS WRITTEN IN THE DEPARTMENT OF BANKING & FINANCE, FACULTY OF MANAGEMENT SCIENCES AND SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE (MSC.) IN FINANCE OF THE UNIVERSITY OF BENIN, BENIN CITY.

December, 2019

DECLARATION

I, Osasere BENCHARLES, do hereby declare that:

I. This research work is based on a study undertaken by me in the department of Banking and Finance, University of Benin.

II. This work has not been previously submitted else were in partial fulfillment of a Master Degree in Finance (M.Sc in Finance)

III. All ideas and views are as a result of my personal research efforts and the views of other researchers expressed in the study have been duly acknowledged.

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(Student/Researcher)

CERTIFICATION

This is to certify that this work was carried out by Mr. Osasere BENCHARLES, in the department of Banking and Finance, Faculty of Management Sciences, University of Benin, Benin City, Nigeria.

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Ven. Prof. I.O. Osamwonyi ***Date***

(Supervisor)

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Dr (Mrs). E.I. Evbayiro-Osagie ***Date***

(Head, Department of banking and Finance)

CERTIFICATION OF THESIS PLAGIARISM

We the undersigned attest and declare that the thesis of Mr. Osasere Kindness BENCHARLES, titled "**Foreign Capital Flow and Stock Market Performance, and Economic Growth in Sub-Sahara Africa**" has successfully passed the anti-plagiarism test and do not violate any copyright regulation.

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ATTESTATION

We, the undersigned attest that Mr. Osasere Kindness BENCHARLES has successfully carried out all corrections as recommended by the external and internal examiners in his thesis titled "Foreign Capital Flow and Stock Market Performance, and Economic Growth in Sub-Sahara Africa".

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(Internal Examiner)

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(Postgraduate School Faculty Representative)

DEDICATION

This Work is Dedicated to my parents, Mr and Mrs Bencharles Orhionkpaiyo whose tireless effort and consistent prayers saw me through the completion of this Work.

MAY JEHOVAH ALMIGHTY BE PRAISED.

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Abstract

The study examined the joint impact of foreign capital flow and stock market performance on economic growth in sub Sahara Africa. Three (3) economies (Nigeria, Kenya and South Africa) were selected from among the 51 economies in the region, and data spanning 22 years (1995-2017) were obtained and subjected to econometric analysis. The pooled mean group estimator (panel ARDL) was employed for data analysis, after preliminary diagnostics has been carried out to check for the time properties of the data set.

Pooled results revealed that all foreign capital flow and stock market indicators were positive and significant drivers of growth in the long run, on the contrary short run result revealed that the stock market inhibited growth in the region. Country specific estimates produced mixed findings as some variant of capital flow was found to be positive while the other negative for the same country, for example FDI was found to enhance growth in Nigeria but hampers growth in Kenya and South Africa. On the other hand, while a significant positive short run relationship was found between FPI and growth in Nigeria and South Africa, an inverse relationship between this variable was recorded in Kenya. Country specific result also revealed significant positive relationship between stock market and economic growth in Kenya, Nigeria and South Africa, although the magnitude was found to be lesser in South Africa.

Premise on findings, the study made the conclusion that foreign capital flows (FDI, FPI) and stock market performance (MCAP, TVL) jointly enhance economic growth (RGDP) in SSA economies thorough their joint role in the accumulation and redistribution of capital. The study therefore made the recommendation that Policy makers must make

adequate policies aimed in attracting foreign capital, as this form of capital has been seen to bridge the gap between investment and levels of savings.

Chapter One

Introduction

1.1 Background to the Study

In recent times, foreign capital flow has proved to be a major player in boosting economic activities amid economic turbulence. The role of foreign capital flow (FCF) in economic development and growth is being embraced by emerging economies as well as developed ones. Developing countries have made non-conceding efforts in the pursuit of economic growth as denoted by the formulation and review of economic policy over time. The effort made by these nations' to stimulate growth especially in the developing economies has met with various challenges arising from the non availability of resources needed in carrying out desired capital investment. Thus following such challenges, various economic vices such as unemployment, inflation and fall in domestic demands have become prevalent in such economies.

In conceptualizing Foreign capital, Sharafat (2014) has opined that FCF comprises the movement of financial resources from one country to another. He further asserts that FCF includes government borrowing from other government or institutions, foreign direct investment (FDI), foreign investment in corporate or government bonds i.e FPI as well as remittances. According to economic commission for Africa (2002) nations in the Africa continent especially SSA have continued to face a perennial shortage of funds to finance investments. Thus the need for external capital is ever pressing in the SSA, given the low level of income per capita is inadequate to attain a modest rate of investment and growth , thus this has created a vacuum in the growth rate of these regions and has been characterized with periods of low and volatile growths and periods of stagflation (Adusah, 2016)

Foreign capital flow has been disaggregated to include variants in which capital flow from developed to developing economies. Fambon (2013) identified Foreign Aid and Foreign Direct Investment to be aggregates of Foreign capital, while Foreign Portfolio Investment, Remittances were identified to be mediums of Foreign capital flow (Narayan, 2013). This various forms of FCF have been accredited with the ability to transfer capital from the economy with surplus capital to ones running a deficit. Foreign Aid in the words of Famboun (2013) is a key form of FCF used for the transfer of capital, thus stimulating growth by acting as an additional source of domestic as well as foreign borrowing. Apart from recapitalizing undercapitalized economy, foreign Aid can engender growth through the opportunities it offers for building the capacities of local cadres, elevating better infrastructures (Mustapha, Elstiakh & Ebaidalla, 2013). Foreign Aid is advanced by developed nations to emerging economies either for economic, political or humanitarian motives. Foreign aids also refer to all grants and loans that are undertaken by the official sector with the promotion of economic development or welfare as the main objectives (Gitaru, 2018)

The stock market provides an avenue in which capital is sourced domestically as well as redistributed from surplus to deficit unit. The stock market according to Hague (2013) is central to the creation and development of a strong and competitive economy. The stock market has been used to refer to an arrangement or market where government and institution raise long-term capital and a medium through which investors can invest (Arnold, 2004). Conceptualizing the role of the stock market, Patric and Wai (1997) refer to the stock market as a market that deals with the short and long-run source of capital, where the government can sell securities to raise capital. The activities of buying and selling stocks on the stock market are extremely significant for the allocation of capital and distribution within economies.

In Sub-Saharan Africa (SSA), economic growth has proved difficult to achieve as a result of insufficient domestic private investment. This difficulty has incapacitated the ability of government to finance public and private investment as well as undertakes public expenditures needed to increase domestic demand, create employment and boost growth (Kanu, 2015). Difficulty in achieving economic growth can also arise from the inability to reconcile desired investment and actual savings as well as the level of savings and capital requirements. Considering the implications of FCF to developing economies especially that of SSA, Kanu (2015) opines that FCF is required in trimming down the disparity amid the desired gross domestic investment and domestic savings, while in the words of Jenkins and Thomas (2002) the inflow of FCF has not only provided capital to elevate economic growth but has also induced domestic investment. Thus, this study examines foreign capital flow, stock market performance, and economic growth in Sub-Sahara Africa.

1.2 Statement of the Research Problem

The poor growth experienced in the past and the recent surge in growth of many developing economies especially those inherent in SSA nations have raised concerns among policymakers as well as academics. these regions have experienced various macroeconomic policy reforms and yet the growth rate of these economies although rising, it does so at a very slow rate giving rise to various studies investigating the likely determinants of economic growth (Undeaja & Onyeabuchi (2015), Ajide (2014)) these studies indicated that developing nations can only attain growth if they develop their human capital, foreign investment, income per capita, capital formation as well as domestic savings. These studies failed to look at financial system development as a likely determinant of economic growth.

Again, Studies have also been done to investigate how various aspects of the financial system stimulate economic growth (Osamwonyi & Kasimu (2013); Jerome (2015); Bayar (2014); Osmond, Ogwuru & Ajadua (2014); and Wild & Lebdaoui (2014), the outcome of the study proved to be inconsistent as to the type of relationship that exist between financial systems and economic growth.

Prior studies (Duba, 2016; Poku, 2016; Kanu,2015; Aham, 2017) have made efforts to examine the effect of FCF on economic growth but has only done so on the assumption that FCF is an addition to existing capital, therefore being complacent on the role of the stock market in raising and redistributing domestic and external capital. Although Oseni and Enilolobo (2011) investigated the Joint effect of foreign direct investment and the stock market on economic growth in the Nigeria context, their study was only limited to an aggregate of foreign capital (Foreign direct investment) neglecting other forms of capital flows while the study focused only on the Nigeria economy.

Premise on this, this study is necessitated by the gap in empirical literature concerning the role of foreign capital flow (which is an addition to existing capital) and stock market performance (redistribution of existing domestic and external capital) on economic growth. This study intends to fill this gap by investigating the role of foreign capital and stock market performance on economic growth in SSA. It is also interesting to note that past panel based studies conducted have only been limited to the use of Generalized Methods of Moments (GMM) (Alagidede & Ibrahim, 2018), Vector Error Correction Model (VECM) (Akinlo & Egbetunde, 2010), Panel Co-integration analysis (Bayar, 2014) Panel Least Square (Chorn & Slek, 2017), Auto-Regressive Distributed Lag (ARDL) (Fambon, 2013). These aforementioned methods are observed to produce homogenous parameters for the entire cross-sections. This becomes an issue as this cross-sections could be in different stages of economic or financial development, thus

heterogeneous parameters are needed to make specific economic interpretations and cross-sectional comparison even after panel parameters have been obtained. In an attempt to fill this gap, this study employs the Pool Mean Group Estimator (PMG) which is a panel version of the ARDL. This methodology is credited with the ability to vary short-run coefficients and speed of adjustment across cross-sections. Secondly, this methodology use variables with different order of integration i.e. I (0), I (1) and still produce an unbiased estimate. Thirdly, this estimator is credited with its ability to avoid serial correlation and endogeneity by selecting appropriate lag for its dependent and independent variables.

1.3 Research Questions

Stemming from the research problem, this study intends to put an answer to the main question arising from the study: what is the impact of foreign capital flow and stock market performance on the economic growth of sub-Sahara Africa?

1. How does foreign direct investment impact on economic growth in Sub-Saharan Africa?
2. What is the relationship between foreign portfolio investment and economic growth in Sub-Saharan Africa?
3. What kind of relationship exists between market capitalization and economic growth in Sub-Saharan Africa?
4. How does the total value traded in stocks affect economic growth in Sub-Saharan Africa?
5. What is the relationship between Trade Openness and economic growth in Sub-Saharan Africa?

1.4 Objectives of the Study

The main objective of the study is to investigate the joint role of foreign capital flow and stock market performance on economic growth. Specific objectives would include to

1. Determine if any significant relationship exists between foreign direct investment and economic growth in Sub-Saharan Africa.
2. Investigate the existing relationship between foreign portfolio investment and economic growth in Sub-Saharan Africa.
3. Ascertain the relationship existing between market capitalization and economic growth in Sub-Saharan Africa.
4. Investigate the nexus between Total value traded in stocks and economic growth Sub-Saharan Africa, and
5. To identify if any significant relationship exists between Trade Openness and economic growth in Sub-Saharan Africa.

1.5 Hypotheses of the Study

The research hypotheses are stated in their null form

H_{o1} There is no significant relationship between Foreign Direct Investment and Economic growth in Sub-Saharan Africa.

H_{o2} No significant relationship exists between Foreign Portfolio Investment and economic growth in Sub-Saharan Africa.

H_{o3} There exist no significant relationship between market capitalization and economic growth in Sub-Saharan Africa.

H_{o4} The total value traded in stocks has no significant relationship with economic growth in Sub-Saharan Africa.

H_{o5} Trade Openness has no significant relationship with Economic growth in Sub-Saharan Africa.

1.6 Scope of the Study

This study focuses on three (3) economies in the sub-Saharan region (Nigeria, Kenya and South Africa). The choice of these economies is based on their economic importance in their various geographic regions (West, East, and South) respectively. Another reason for the choice of this sample is based on the fact that they represent one of SSA largest economies in recent times and this is based on their GDP and as such policy emanating from this study can be adopted by other SSA economies. This period of study would span 1995-2017; this period is suitably selected as the economies chosen for the study completely liberalized their capital account within the period of study. The study would cover only two variants of foreign capital flows (FDI, FPI) and two proxies for stock market performance (Market capitalization and total value traded in stocks)

1.7 Significance of the Study

The findings of this study will extend the existing body of literature on the subject matter and will be relevant to;

The outcome of this study would hopefully guide policymakers in making informed decisions as to the implications of attracting foreign capital into the economy. It becomes also relevant in helping policymakers decide which form of capital should be accumulated i.e. external or domestic capital.

The outcome of this study would also be significant to researchers and academia's in the field as the outcome of this study would update existing literature on foreign capital, stock market, and economic growth. Other Sub-Saharan Economies stand to gain by

making policies to mirror that of the economies chosen for this study as this study has great implications for them. Finally Investors would better be able to examine the performance of various stock markets and make informed investment decisions.

1.8 Limitations of the Study

The limitation of this study lies in the small number of countries selected as sample size chosen for the study. The study attempts to handle it by selecting the three largest capital markets in Africa. Other limitation would include omitted variables, but the results demonstrate robust estimation. Probable issue with the use of secondary data is addressed by sourcing them from regulating authorities thus likely errors from these sources are minimized. Hence panel cointegration is adopted to minimize problems with modeling time series. It is therefore believed that the results of this study are robust.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter focuses on the review of the body of existing literature. To enable us to do this, a given order of review is followed which include the review of various concepts which would be followed by the review of relevant theories. Finally, previous studies related to this study were also reviewed.

2.2.1. Conceptual Review

2.2.2. Concept of Foreign capital Flow

Foreign capital flow has been conceptualized by Sharafat (2014) to mean the movement of financial resources from one country to another either in the form of foreign direct investment, foreign portfolio investment, foreign Aid and Remittance. In conceptualizing foreign capital flow (FCF), one must disaggregate this concept to allow for an in-depth understanding of what FCF entails. Thus this study disaggregates FCF into foreign direct investment (FDI), foreign portfolio investment (FPI) and remittances.

2.2.3. Foreign Direct Investment

Foreign direct investment (FDI) is an investment made across international borders by a resident entity in one economy (direct investor) with a goal of establishing a lasting interest in an enterprise resident in an economy other than that of the investor i.e. direct investment enterprise (OECD, 2008). The lasting interest implies the existence of a long term relationship between the direct investor and enterprise. The total net inflows of investment from across international borders with the aim of acquiring a lasting

management interest (10% or more) in an enterprise are termed foreign direct investment (World Bank, 2005). Zhang (2001) has conceptualized FDI to be long-lasting participation by a country in another country which happens to be across international borders. This also involves participation in management, joint venture, transfer of technology and expertise. FDI involves not only the transfer of ownership but also other factors of production i.e. labor, capital, and technology (Chege, 2015). FDI may take the form of either "Greenfield" investment also called mortar and brick investment or merger and acquisition which entails the acquisition of existing interest rather than new investment (Nyamwange, 2009). In corporate governance, ownership of at least 10% of the ordinary shares or voting stock is the criterion for categorizing an investment to be an FDI, anything lesser than this would be classified as foreign portfolio investment (FPI). FDI comprises not only merger and acquisition but also reinvested earnings and loans and similar capital transfer between parent companies and their affiliates (Akpan & Nneji, 2016).

Foreign direct investment involves foreign investor exerting influences on the management of the enterprise in the host country (Ngonyo, 2013). FDI may be undertaken by companies or individuals investors. FDI may also be comprised of three (3) components namely the initial capital which is the investors' purchase of shares in the host country, this also includes initial investment in plants and equipment. Another component is the reinvested earnings which are the investor's share of earnings, which are not distributed. The third component is the intra-company loans transactions which refer to borrowing and lending of funds between the parent companies and affiliate enterprise.

Foreign direct investment can be classified into (i) import substituting, (ii) export-increasing FDI, and (iii) government initiated FDI. Import-substituting FDI entails the

production of goods formerly imported by the host countries; this implies that the host and investing country would both see a decline in their import and exports respectively. This type of FDI is most likely to be determined by the size of the host country's market, transportation costs, and trade barriers. Exports increasing FDI, on the other hand, is necessitated by the desire to seek new sources of inputs such as raw materials and intermediate goods. This kind of FDI is export increasing as host country exports of raw materials and intermediate products to the investing country and other countries are increased. The government initiated FDI may be triggered, for example when the government offers incentives to foreign investors in an attempt to eliminate a balance of payment deficit.

Chen and Ku (2000) classified FDI to include expansionary and defensive seeking. They are of the opinion that an expansionary FDI seeks to exploit firm-specific advantages in the host country. Expansionary FDI has the advantage of contributing to the sales growth of the investing firm at home and abroad. Similarly, defensive FDI seeks cheap labor in the host country with the objective of reducing the cost of production (Chen & Yang, 1999).

2.2.4. Foreign Portfolio Investment

Foreign Portfolio Investment (FPI) is a form of international capital flow which entails investment in other economy financial systems. It is a passive holding of securities such as foreign stocks, bonds or other financial assets but less than 10% of voting stocks. FPI can either be equity which entails shares, stocks and similar documents that usually denotes ownership of equity. FPI is the most volatile form of capital inflows as it is often very easy to sell off securities and pull out the foreign portfolio investment.

2.2.5. Concept of Stock Market

The stock market is an organized and regulated financial market where securities are bought and sold at prices governed by the forces of demand and supply. Securities traded in the stock market range from bonds, shares, debentures, derivatives et.c. The stock market is one of the important parts of the financial system which enables firms to raise capital by issuing their shares and also create an environment in which the shares are traded (Osazee, 2005). The stock market can be used to refer to the collection of markets and exchanges where issuing and trading of equities or stocks of publicly held companies are doing. Securities traded in the stock market range from fixed income securities and variable income securities and other forms of securities that cut across the fixed and variables income securities (Osazee, 2005). The stock market comprises of both the primary and secondary market. The primary market is the market where the institution, individuals, the government can raise funds by channeling savings of investors into productive ventures. The primary market is a market for the issuing of new security by institutions wanting to raise capital. On the other hand, the secondary markets are where investors can sell their securities to other investors for cash, thus reducing the risk of investment and maintaining market liquidity. Some often used Indicators of stock market performance include market capitalization which is the total value of all equity securities listed on a stock exchange. It is a function of the prevailing market price of quoted equities and the size of their issued and paid-up capital. Another often used indicator of stock market performance is the number of new issues which is the total amount of new securities raised in the capital market. It is a major indicator showing how popular the market is as a source of growth of funds. This actually depends on the degree of investors' confidence and the comparative cost of raising similar funds from an

alternative source in the financial system. The stock market index measures the performance of the stock market; it is computed from the prices of selected stocks.

2.3. Concept of Foreign Capital Flows and Economic Growth.

2.3.1. Foreign Direct Investment and Economic Growth

The nexus between FDI and economic growth has been the center of debate among policymakers and researchers alike. While some posit a positive trend (Oseghale & Amonkhienan (1987), Aluko (1961), Ayanwale & Bamire (2001)) others have established a negative nexus (Aitken, Harrisson & Lipsey (1999), Stanisic (2008). Others studies like Akinlo (2004) has found a small and not statistically significant relationship with economic growth.

The growth of an economy as postulated by the neoclassical growth theory is dependent on the rise in the number of factors of production as well as the efficiency in their allocation (Uwubanmwen & Ajao, 2012). Speaking in terms of labor and capital, it is well known that developing countries have an abundance of manpower but inadequate capital (machines) owing to lack of domestic savings mobilization which places a limitation on capital formation and economic growth. With the dominance of labor in developing economies, acute shortage of capital is a challenge, as the manufacturing of goods and services depends on the provision of foreign inputs (machines). This, therefore, makes international capital flow an important aspect of the efforts by developing countries to close their investment-savings gap (Uwubanmwen & Ogiemudia, 2016).

In developing nations, there is a generally low level of domestic savings, low level of technical know-how and low level of foreign exchange earnings resulting in a low level

of economic investment. The adverse effect of low domestic investment is observed in the relative fall in employment levels, income per capita, consumption, and output, all these effects impact negatively on economic activities. The premise of this, governmental agencies have awakened in search of an additional source of finance to augment the real resources available for production in host countries. Indeed it is the opinion of Pulatova (2016) that FDI serves as cholesterol needed to bridge the investment-savings gap in developing nations and increasing employment and income per capita. It is in view of the benefits accruing to FDI that governmental agencies seek to attract FDI every now and then. Developing countries desirous of achieving rapid and sustainable economic growth has found it wise in creating an investment-friendly environment (Bello, 2011). The establishment of the New Partnership for Africa's Development was based on the desire to increase capital inflow into the region through a combination of reforms, resource mobilization and conducive environment for FDI (Funke & Nsouli, 2003).

The determinants of foreign direct investment have been a center of debate among policymakers and academics. Oaikhenan and Ughulu (2006) persuasively argued that investors are more likely to be attracted to economies where there exist tax incentives, export promotion, stable macroeconomic policies, and polity as well as the safety of lives and property. Ruscuite (2006) placed forth his opinions by stating that local market, political, economic, legal environment and macroeconomic stability are among the important factors that determine where and how most multinationals channel their investments. Abiola and Asiweh (2014) assert that multinationals are attracted to nations with a liberalized economy which translates into trade liberalization and in doing so attract FDI. The credibility of liberalization policies have been established to be a determinant of FDI as a considerable amount of sunk cost is associated with FDI

(Rahman, 2000). When investors doubt the liberalization of an economy, it, therefore, becomes a risk factor and can thus impede foreign investment.

Some scholars have posited that the higher a nation is able to attract foreign investors the bigger portion it can take from global production and income, therefore its national wealth can increase (Guraks,2003; Abala,2014; Akpan,2016; Chege,2015). In other words, FDI can boost additional resources to break the vicious circle and act as a complementary tool for domestic resources (Koojoroenprasit, 2012). Caves (1996) opine that the reasons for the attraction of FDI are based on the fact that FDI impacts positively on the developmental challenges of the host country. In the word of Findlay (1978) "FDI increases the rate of technological development in most emerging economies through a contagion effect from technology and business practices adopted by multinational corporations". Todaro and Smith (2004) saw FDI to be more than the transfer of technical know-how, but to include the accumulation of capital and channeling of such capital into productive areas. FDI stimulates product Diversification through investments into employment generation, increase in wages and accelerating declining market sectors of host economies (Aremu, 2003)

Another probable reason for the attraction of FDI into the domestic economy is the desire to expand the market system as many developing economies have high external debt portfolio. According to Akpan and Nneji (2016) the problem of eternal debt burden is not solved by borrowing more but by attracting more private capital flows in the form of FDI. The need to fill the foreign exchange gap (a gap between export revenue and import) is just another reason for the liberalization of the economy to allow for capital inflow. In the face of serious resource gap, the country has to find one way or the other of filling the gap, one way is the attraction of foreign capital flow in the form of FDI into the economy through liberalizing the economy.

In the words of Silvio and Ariel (2009) foreign development investors are mostly by developing economies with the rationale that through its activities domestic economies can benefit from positive experience from developed economies, thus one would expect an increase in export volume as FDI flows increases. Melnyk, Kubatko, and Pysarenko (2014) are of the view that domestic firms receive competitive advantages as a result of the exploitation of new knowledge, experience ways of production and management. Melnyk et al (2014) further assert that current successful economic growth of developing countries is explained by "catch up effect" in technological development with developed countries. Lahiri and Ono (1998) observe that the introduction of firms with high and sophisticated technology, managerial skills may help lower prices and hence increase consumer's surplus. According to Koojaroenprasit (2012), FDI contributes to economic growth technology transfer. The accumulation of capital and augmentation of human capital through education, training and new management are seen to flow from FDI (Buckley, Clegg, Wang and Cross, 2002).

Despite the rationale behind FDI, especially those located in developing economies, studies have perceived negative externalities flowing from FDI and have thus warned emerging economies to be careful of overdependence on the benefits of FDI as means of ensuring economic development (Sadik & Bolbol, 2001) Blomstrom and Kokko, (1998) has questioned whether FDI contributes to the broader aspects of economic growth as well as reinvestment of income in host economies. The presence of foreign firms can affect the efficiency of local industry (adverse spillover argument). This argument tends to be more tenable when multinationals corporations are producing for the host country market. In their study, Aitkrn, Harrison, and Lipsey (1999) showed that the entry of foreign firms disrupts the equilibrium in an existing market in the host country thereby constraining the production capacity of local industry and thus increase the cost of

production. Boyd and Smith (1992), Wheeler and Mody (1992) has argued that FDI affects resources allocation and growth negatively where there are price distortions, financial, trade and other forms of distortions existing prior to FDI injections. Nunnenkamp and Spatz (2003) has kicked against developing economies drawing on FDI to create economic development as FDI can result in crowding out effect" which is a scenario where parents companies dominate local markets, thereby stifling local competition and entrepreneurship as a result of policy chilling or regulatory arbitrage (Uwubanmwen & Ogiemudia,2016). Foreign investors could engage in the repatriation of profit and market stealing, this was the concern of Schools, Van der Tol and Bartoldus (2002) as this act by multinationals have a negative impact on domestic economies.

2.3.2. Foreign Portfolio Investment and Economic Growth Nexus

Another aggregate of foreign capital worth discussing is the investment in securities such as stocks, bonds by foreign investors in an economy other than their own. Foreign portfolio investment (FPI) involves the transfer of financial assets including stocks, bonds and cash across international borders in want of profit. FPI occurs when investors purchase a non-controlling interest in foreign companies or by foreign corporate or governmental bonds (Ratro & Walt, 2005). Individuals seeking their own advantage move accumulated funds into wherever they are likely to be most productive and in doing so make profits (love,2003).

International Monetary Fund (IMF) (2005) has defined FPI to include investment in equity and debt, depository receipts purchased by foreign investors of less than 10% control. In recent times, FPI has become an important part of the world economy and many developed and developing countries are exploring it to develop their economy (Bekaert & Harvey, 2003). The general clamor by developing nations to boost their

economy has lead to the call for FPI, thus various governmental agencies are making contentious efforts in making friendly investment policies which have seen to the removal of trade restrictions. The burning need of developing nations and the commitment of their various government has brought to the fore the need for a functional financial system given the developmental need of the economy (Wurgler, 2000). The death of adequate financing has been identified as one key factor inhibiting the much-needed investment in infrastructure. Hence substantial long term financing would go a long way in resuscitating the death of key sectors in an economy (Knill, 2004). Capital in the form of FPI impacts positively on the economy by providing financial resources needed for production by corporate institutions and the execution of capital projects by governments (Ekeocha, 2008). In other words, FPI can provide the needed resources to corporations and governments in developing nations through the financial markets for infrastructural and industrial productivity. Building infrastructures and financing business projects with the proceeds of FPI will substantially lead to economic growth which in turn would result in an increase in employment, advancement in income generation, increase in gross domestic product and increase in the standard of living.

African business society has been impeded by the poor power supply, insecurity, bad roads as well as a weak judicial system. Inconsistency in government policy is prevalent in the third world nations (Narayan, 2013) and as such a business environment becomes highly uncertain. Thus these unfavorable conditions may discourage foreign investors from investing in such economies. The premise of this, a conducive business environment and strong legal system have been identified as a major attraction of foreign investment (Levine & Zervos, 1996). Irrespective of how vibrant a capital market may be, a weak legal system would not attract foreign portfolio investment.

The financial crisis of the 1990s and 2000s has renewed interest in the determination of the effect of FPI on the economic growth of the host country. An increase in FPI would lead to greater liquidity in the stock market resulting in the depth of the market (Levine and Zervos, 1996). In his study, Knill (2003) studied the impact of FPI on small firms and it was ascertained that FPI bridge the gap between the financing need of firms and that which they can get from the capital market. Feldman and Kumar (1995), Shin (2000) has opined that the positive externalities of positive competitive pressure to attract FPI would increase industrial standards and regulation, resulting in stronger investor protection and thus investor's confidence. Increased liquidity in the capital market has been said to be a resultant of the rapid inflow of FPI into the economy (La Porta (1998), Bekaert & Harvey (2003). Increase in liquidity translates into better access to financing at a lower cost of capital which is crucial to support economic activity.

The inflow of FPI into capital market helps to alleviate financial constrain of firms (Laeven, 2003, Knill 2004). Some studies have shown FPI to have a favorable contribution in supporting the domestic stock market (Patro & Wald, 2005, Kim & Singal, 2000). Capital flow in the form of FPI acts as a catalyst to economic growth and contributes towards increased wealth creation. Therefore, the efficient allocation of capital can be attributed to a free flow of FPI (Wurgler, (2000); Love, (2003)

Despite the rationale for FPI, FPI has been seen to have a likely adverse effect on the host economy. The volatility of FPI makes it potentially dangerous for economic growth (Duasa & Kassim, 2009). The volatile nature of FPI has been quoted to be a major reason behind financial distress leading to financial crises. Abrupt reversal of FPI causes panic in the financial market since such reversal is taken as a manifestation of impending financial crisis (Sula & Willet, 2006). Another perceived impact of FPI volatility on economic growth is its complication of the implementation of macroeconomic

stabilization policies made by policymakers. FPI volatility results in the unpredictable behavior of money supply, exchange rate level and stock market volatility (Patro & Wald, 2005). Asset price bubbles could occur as a result of sustained periods of excessive capital inflows due to high capital mobility thus leading to inflationary pressure, while sudden withdrawals in portfolio investment accompanied by a major correction in asset prices can pose a serious risk to the economy (Duasa & Kassim, 2009).

2.3.3 Trade Openness and Economic Growth Nexus

Trade openness is the extent to which non- domestic transactions takes effect and influences the growth of the economy. Pritchett (1996) defines Trade openness to be an economy's 'trade intensity', the extent to which a nation allows international dealings. Yanikkaya (2003) sees international trade openness as international dealings with low international trade cost which consist of the cost of transportation, tariff, subsidies taxes, and non-tariff barriers.

The nexus between trade openness (TOP) and economic growth has long been opened to academic debate and thus differing studies has emerged. Some studies have emerged. Some studies have found a strong positive relationship between trade openness and economic growth (Chang & Mendy, 2012; Rao & Rao, 2009; Karras, 2003) on the contrary other studies have found a weak or negative relationship (Adhikary,2011; Alessandro,2004; Krugman,1994). Proponents of trade openness have established channels through which economic openness could affect growth. in one of his studies, Osabuohien (2007) noted that trade openness could affect growth through its direct effect on per capita income since countries specialize in producing goods in which they have comparative advantages. Again, trade openness can influence growth via its effect on

labor productivity and export capability, thus countries can better be able to increase specialization and division of labor thereby improving productivity and export capability. Trade openness allows for more foreign investments in the forms of FDI, FPI, Remittances which has been theoretically and empirically found to affect growth positively. Klasra (2011) suggests that trade openness encourages growth through technology transfer, efficient allocation, and distribution of resources within the economy and interaction with partners. Trade openness tends to increase export and imports, thus improving domestic technology leading to a better and efficient production process.

However, not all studies agree that trade openness is positively related to growth (Adhikary, 2011; Alessandro, 2004; Krugman, 1994). According to these studies trade openness sets exogenous constraint to economic growth. Developing economies suffer the most as openness to international trade reinforces their dependence on international demand thus increasing their vulnerability to volatility in the international market. Macroeconomic instability has been identified by Rodrik (1992) to be a result of economic openness as it leads to depreciating exchange rates which results to a balance of payment crisis and fall in domestic demands and investment. For highly import-dependent nations, uncontrolled trade openness could lead to outright abandonment of the domestic market while middlemen patronize more of the international market thereby leading to a drop in domestic demand for goods and services.

2.4. Concept of Stock Market Performance and Economic Growth.

Achieving a high level of sustainable economic growth has been the aim of the affair of many countries. Researchers have been spurred to propound useful theories and models in a bid to explain the phenomenon of economic growth. Economist has looked at the

traditionally factors affecting economic growth i.e. capital, labor and technology and in recent times studies has shifted to the stock market as an agent of economic growth (Sule & Momoh, 2009; Ewah, Esaang & Bassey, 2009; Okonkwo, Ogwuru & Ajudua, 2014; Osamwonyi & Kasimu, 2013) the stock market has been credited with the ability to provide a channel for the sourcing of long term finance essential for economic growth (Okonkwo, Ogwuru & Ajudua, 2014). Chinwuba and Amos (2011) have noted that the stock market is one of the major institutions that act in propelling a prostrate economy for growth and development. In the words of Nyong (1997) a stock market is a 'complex institution imbued with an inherent mechanism through which long term funds of the surplus sectors of the economy are mobilized, harnessed and made available to deficit sectors of the economy'. Osaze and Anao (1999) have seen the stock market to be a pillar of any financial system as it provides necessary funds for financing thus the stock market functions as an economic barometer (Ilaboya & Ibrahim, 2004).

The functions of the stock market have been categorized into four basic tasks by Levine (1997). The stock market was said to facilitate diversification, trading, and pooling of risk, the second role being its ability to allocate scarce resources, thirdly is its role in implementing corporate control and monitoring of managers and finally its mobilization of savings.

A well-functioning stock market promotes growth and profit incentives and facilitates risk management (Beck & Levine, 2002). Pagano (1993) has established three (3) basic nexus between the stock market and economic growth, this nexus includes increment in the proportion of savings that is funneled to investment, change in the savings rate and hence affect investment and finally increase the efficiency of capital allocation. The stock market is essential for the long term growth capital formation and thus becomes a driver of economic growth and development (Osaze, 2000). The stock market is essential

for the mobilization of savings and the channeling of such savings of profitable investments. Efficient and effective distribution of scarce resources is a product of a well-functioning stock market.

The growth of an economy in modern times hinges on a well functioning financial sector that has sufficient capacity in accumulating domestic savings and mobilization of external capital for productive investment (Seyyed, 2010). One major way the stock market induces investment is by providing listed companies to mobilize much-needed capital and in doing so it creates a wide range of the instrument (securities) in which individuals can invest the surplus fund. The capital market acts as a lubricant that keeps spinning the wheel of the economy. The stock market efficiently allocates invested funds in addition to providing investment alternatives (Equakun, 2005). Therefore in altering the quality of these savings, the functioning of stock markets can alter the rate of economic growth.

Many profitable investments require a long-term commitment of capital and investors are reluctant to relinquish control of their savings for long periods (Demirguc-Kunt & Levine, 1996). One acclaimed advantage of the stock market emanates from its liquid nature (Osamwonyi & Kasimu, 2013). The stock market ensures liquidity because savers/investors do not want to lose access to their savings for a long time. Thus the stock market ensures that investors can quickly, cheaply and confidently sell their stock in the secondary part of the market (Nzotta, 2004). Stock market liquidity enables employment of high production techniques that are long term and enables the enjoyment of economies of scale which eventually stimulate growth. The issue of market liquidity is important as savers would be reluctant to tie up their investment for a long period (Okonkwo et al, 2014).

The performance of any stock market can be attributable to the political stability of the country. Civil unrest, terrorism, incessant kidnapping, dictatorship contribute to a dwindling performance of the stock market. Thus while the stock market is perceived to impact on economic growth, the economy must also be free from stormy waves so as to enable the financial system to surf conveniently without capsizing. Financial deepening and the composition of aggregate financial variables are some important factors responsible for economic growth (Duca, 2007). The macroeconomic stability of the economy, liquidity, transaction cost, and adequate education of the public as to the intricacies and benefits of the stock markets has been perceived to be a key determinant of market performance (Khan, 2000).

2.5. Foreign capital Flow, Stock Market Performance, and Economic Growth Nexus

The Role of stock market and foreign capital has become key in fostering economic growth and development. Capital flowing from abroad (FDI) can have a direct effect on economic growth through externalities resulting from production such as employment, technology transfer, revenue through tax payment, infrastructural development through social responsibilities, efficient management processes and so on. On the other hand the stock market being part of the financial system affects economic growth by acting as a redistributive mechanism in redistributing income, capital, and wealth from surplus to deficit units.

Although foreign capital in the form of FPI can have a direct impact on economic growth and its impacts could be strongest when it is allowed to go through the financial system (stock market) thus the financial system becomes a catalyst to economic growth. Foreign portfolio as we know usually comes to economy through the stock market, thus

increasing the breadth and depth of the market which leads to a multiplier effect on the economy. Multinational companies listed in the local stock exchanges as well increase market participation, thus increasing the total value and market capitalization of the entire market which could thus foster economic growth. Secondly, profits generated by this multinationals are redistributed through the stock market in the form of dividends thereby increasing wealth of individuals and finally increasing per capita income and GDP. Figure 1 shows the relationship between foreign capital, stock market and economic growth, it indicates that although foreign capital can have a direct effect on economic growth through positive externalities, when capital are allowed to flow freely through the market it can thus become a better catalyst to growth. FPI and FDI going through the stock market reinvigorate the market thus strengthening its ability to boost economic growth.

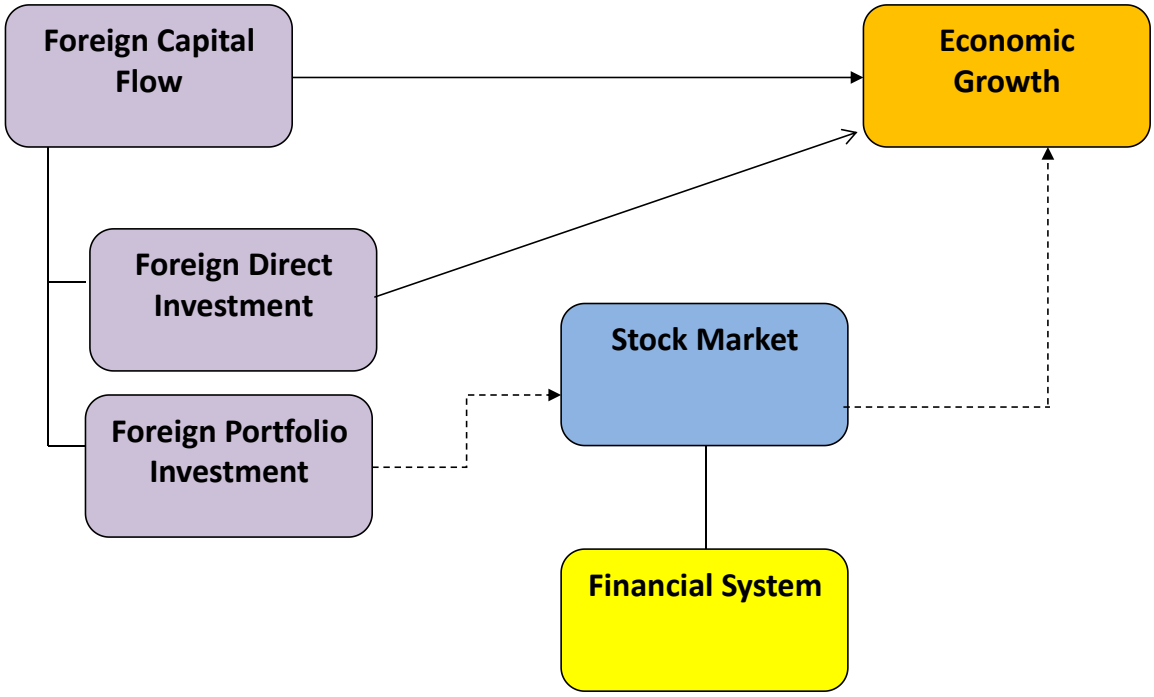

Fig 1: Relationship between foreign capital flow, stock market and economic growth.

Source: Author's Conceptual Design.

2.5. An Overview Of Foreign Capital Flows, Stock Market Performance and Economic Growth In Nigeria.

Nigeria represents one of sub-Saharan Africa's largest economy with a Gross Domestic Product (GDP) of US $404,653 million as at 2016 and an average annual growth rate of 3.87 from 1982 through 2016 (World Bank, 2017). The Agricultural sector has made significant contributions of 21.6% to the total GDP of the economy in 2016 while the industrial sector making marginal contributions of 18.3%. The service sector of the economy has contributed significantly also to the economy averaging 60.1% to total GDP (World Factbook, 2017). The Nigeria population stood at 177million as of 2017 with a labor force of 74million (National Bureau of statistics, 2015). Nigeria with a fast-growing economy has about 33% of its population living below the poverty line with a Gini coefficient of 43.0 (World Bank, 2011). The unemployment rate in the country has averaged 13.9% as of 2016 with GDP per capita of US $ 2,758m.

The fast growth of the economy has been attributed to its liberalization of the financial system thus allowing for relations with economies on the outside. In response to its liberalization, Nigeria has become a major recipient of foreign capital flow with an average of US $ 7 billion inflow of FDI into the economy making it the highest recipient of FDI in Africa over the past few years. Specifically, in sub-Saharan Africa, FDI climaxed from $1.54b in 1981 to a peak of v 39.84b in 2012. During the same period, foreign portfolio investment saw an increase from US $ 3.18m to $9.94b. in Nigeria precisely, FDI grew from $544.33m in 1981 to $7.10b in 2012 accounting for 20% of total FDI in sub-Saharan Africa (World Bank, WDI, 2014).

Like every developing nation, Nigeria has developed policies and strategies with the aim of attracting foreign capital into the economy. One of such key policies has been the

liberalization of her capital account. The discovery of oil in 1956 increased the growth of the Nigeria economy making it a center of foreign direct investors. After the discovery of oil, foreign investors immediately started negotiations with the Nigeria government and in 1970 Nigeria economy saw the inflow of FDI with an approximate amount of $205m contributing 1.63% to total GDP. Nigeria also started borrowing externally from the same 1970, a trend that has continued ever since, for instance in 1976 Nigeria external debt rose from $1.3b to $3.2b in 1977, a 46% increase in debt. Nigeria external debt stood at $34.b as of 1994 (Ezeabasili, Isu & Majekwu, 2011).

Before the discovery of oil, the growth in Nigeria GDP was mostly driven by the agricultural sector (Obiechina & Ukeje, 2013). Currently, the Nigeria economy has been dependent on the oil sector and it has been the major source of foreign exchange in the economy. As a result of the discovery of oil in the economy, oil extracting firms were established and as expected the presence of foreign investors were witnessed, therefore making FDI a major source of capital flows. Nigeria as a nation is blessed with mineral resources, making it a resource based nation, therefore making Nigeria the largest recipient of FDI in Sub Saharan African. In 2006, Nigeria accounted for 11% and 70% of Africa and West Africa total inflow of FDI respectively. The oil sector accounted for 80% of the total FDI inflow making the sector the most vibrant sector and the largest recipient of FDI (UNCTAD, 2010).

Various efforts have been made by the Nigerian government to attract foreign investors owing to the developmental effect of foreign capital. One of such programmes formulated and implemented is the Structural Adjustment Programme(SAP) established in 1986 which formed the basis of the deregulation of the Nigeria economy (CBN, 2001). Prior to the promulgation of SAP, the Nigeria economy was heavily protected with over-restrictive policies (the indigenization policy of 1972) which impacted

negatively to the growth of foreign capital flows into the economy (Obiechina & Ukeje, 2013). Other factors that militated against the growth of FDI was the socio-economic and political development in the 1980s as well as the regulatory and institutional framework required for the approval and incorporation of foreign companies. Macroeconomic instability evidenced by persistent inflation, rising interest rate, and exchange rate mitigated the inflow of external capital. Currently, the present insecurity in the country evidenced by constant kidnapping, bomb attacks by Islamist group has lead to the drop of FDI in the country.

The Nigeria economy saw a rise in remittances in 2004 soaring from a relative value of $2.7b to $20.6b in 2012. Such tremendous growth can be attributed to the introduction of democracy in the country as Diaspora saw the economy to be safe and thus make an investment. Like FDI the economy has also witnessed a decline in remittance as a result of the recession witnessed in advanced economies. Foreign portfolio investment has also witnessed an upward trend following the introduction of democracy in 1999. This period witnesses consistent positive growth in GDP with an average of 7.98% per annum from 2000-2013. During 1999 and 2006 pertinent policies were made to foster growth, they include the development of the private sector, liberalization of the foreign exchange market, reduction of debt overhang, banking system reforms and many others (CBN, 2008). Nigeria as the most populous black nation needs to focus on the type of foreign capital that improves its economy most significantly. Nigeria, therefore, needs to concentrate on the capital flows that translate to more economic growth.

Despite the numerous challenges and problems faced by the economy, the Nigeria stock market has performed fairly well over the years. One of the numerous challenges faced by the stock market is the buy and hold syndrome of Nigerians, ignorance of the existence and benefits of the stock market, low depth and breadth of the market and lack

of capital market-friendly economic policies. The Nigeria capital market formerly started operations in 1961 with eight (8) securities previously listed in the London stock exchange. Since 1961, the number of listed securities has increased from 8 to 52 in 1972, and later 264 by the end of 2010. The total number of new securities issued before 1989 was far from N1b but grew to N10b in 1996. The capital market continued to witness an increase as the number of new issues crossed the N10b mark in 1997 to a total of N56.40b (NSE, 2001). Total new issues N61, 284b in 2002, N180,079b in 2005. The total number of new securities went under as a result of the 2008/2009 global meltdown leading to a dip from N1.935trillion in 2007 to N1.5trillion in 2008.

The composition of the exchange also changed significantly. As an instance, in 1961 about 63% of securities were in the form of governmental stock as against 0 % of industrial stock and 37% equity. In 1990, the share of stock holdings of government was 19.82%, industrial loan stock 19.82% and equity 60.36% (Uwubanmwen, 2001). The fast-rising of the capital market owns to different government legislation, monetary policies and technical advancement in stock operations.

The growth in stock market capitalization in the stock market has been inconsistent over the years. For example, prior to 1988, the total market capitalization was far below N10b, it hovered between N10b to N57b from 1988 through 1994. In 2003 the capital market recorded a value of N1, 3593 trillion(t), N2.1125t in 2004 and an all high value of N13.229t in 2007 (NBS, 2013). The market capitalization made up 10.5% in 198 which meant a drop to 7.4% in 1994 before taking a leap to an all high value of 27.4% in 2005 (Edame, 2009). The total number of equities listed was merely 3 in 1961 before taking a leap to 13 in 1971, 93 in 1981 and 198 in 2005. It is noteworthy to mention that the listed securities climaxed to 301 in 2008 (NSE, 2015). The trading value of transactions in the NSE from 1961 to 1975 was below N100m. however from 1976 to 1994, it was between

N100m and N600m. in 1995, after the liberalization of the financial system, the total value landed a mark of over N1b by 2008, the total value traded has already climaxed to N4.4t.

2.6. An Overview Of Foreign Capital Flow, Stock Market Performance And Economic Growth In South Africa

South African being the second largest economy in Africa after Nigeria has an estimated GDP of $295billion (b) as at 2017. South Africa with a population of over 57million ((m) has a labor force of 22.19m of which 27.1% are unemployed (World Factbook, 2016). Shocking to note is that 60.6% of the South African total population still leaves below the poverty line, even with a large GDP base and being the second largest economy in Africa. The service sector contributes the most to the total GDP in South Africa, the service sector contributes about 67.5% to the total GDP with the agricultural and industrial sector contributing 2.8% and 29% respectively (World Factbook- South Africa, 2018).

South African as a country has witnessed various regimes which can be categorized as apartheid and post-apartheid era. Prior to 1994, the South Africa nation was excluded from receiving financial support due to economic sanctions impeded by the international community during the apartheid era. South Africa economy only saw an increase in FDI after 1994 when democracy was fully restored to the nation. Since then the foreign capital flow has steadily entered into South African economy. For example, in 1999 portfolio equity saw an increase from a minimum value of 0.303% of GDP in 1993 to 2.766% of GDP in 1999. Although portfolio equity dropped sharply between 2000 and 2002 as a result of the attack on the world trade center in the United States, it again gained momentum rising to a value of 2.21% of GDP in 2006.

South Africa witness another downturn of portfolio equity in 2008 after registering a loss of about $5.6b (0.56% of GDP), although this can be attributed to the 2007 financial crisis in the USA. In the latter part of 2008, portfolio equity staggered from a low of minus $4.706b to $0.67b in 2012. South African has been attributed to be the most industrialized economy in Africa (Zambia business times) thus the existence of foreign direct investors is anticipated. In 2012 FDI flows to South Africa saw an increase to $4.643b, after a momentous decline in 20100 from $9.88b in 2009 to $3.693b after the global financial crisis. The fall in capital flow especially portfolio equity emphasizes the volatile nature of portfolio equity and the relationship between economic performance and investment. Good to note is that the business climate has improved and capital flows are being attracted as a result of favorable economic prospects in South Africa. Remittances which also make up the capital flow in South Africa has increased from a value of $0.288b in 2002 to an all high of $1.084b in 2012 (World Bank, 2014).

The growth of the South Africa economy has not always been rosy especially before the democratic regime in 1994. But even after 1994, South Africa economy has recorded a low level of growth in 1999 as a result of the Asian financial crisis where the economy experiences massive capital flight (Wesso, 2001). The economic growth saw an upward trend in the 2000's only to experience negative growth in 2009, although the financial crisis was a contributing factor to such a decrease in value. South Africa economy has experienced low growth of foreign capital i.e. 2.2% of GDP in 2012, 2.21% in 2013, 1.52% in 2014 (World Bank, 2015). Such decline is below the potential growth rate of the economy as the growth rate has been observed to hover around 3.6% to 4% over the previous decades.

The low level of growth can be attributed to the withdrawal of funds from the economy most notably in the form of divestment in portfolio equity, bonds, foreign direct

investment. Considering the low level of growth in the nation and the present challenges faced by the economy (inequality, unemployment, poverty) there is need to embrace various measures to improve economic growth to combat these prevailing challenges. If the South Africa economy intends to combat prevailing challenges they must give adequate consideration to capital flows.

2.7. An Overview Of Foreign Capital Flow, Stock market Performance And Economic Growth In Kenya.

Kenya lies in the eastern region of Africa, with a population of over 49million individuals. Kenya represents the 9th largest economy in Africa and the largest economy in the eastern region of eastern Africa with a GDP of $85.980b as of 2015 (IMF Economic Outlook, 2016). Kenya's economy rank 69th in the world based on their GDP value as of 2016 (IMF, 2017). Recently, Kenya has witnessed an annual growth in GDP, for example in 2015 Kenya's growth rate stood at 5.7% climbing to 5.9% in 2016. Although this growth rate dropped by 1% in 2017, it bounced back to 5.5% in the first quarter of 2018. Of Kenya's population, the unemployment rate stood at 38% in 2015 with a labor force of 17.89m which accounts for 48% of the total population.

Kenya's economy is market-based with a few state-owned infrastructure enterprises and maintains a liberalized external trade system. The agricultural, forestry and fishing sector makes up Kenya's major industries, the agricultural sector makes up 24.2% of total GDP with industry and service sector contributing 14.8% and 62.5% of total GDP respectively. It is quite disheartening that a fast-growing nation like Kenya still has a 42% of its population living below the poverty line with a Gini coefficient of 42.5.

The government of Kenya has built an investment-friendly environment and enhanced several regulatory reforms to simplify both foreign and local investment. One notable

policy made by the Kenya government was the liberalization of capital accounts in 1995. Prior to 1995 Kenya operated a closed capital account from 1970 to 1972 and the net portfolio was drowned. Besides the liberalization of the capital account, the Kenya economy has undergone regional and economic integration policies and strategies adopted to increase foreign capital flows in other to encourage trade flows.

In 1991 Kenya's economy witnesses a downturn in economic growth with a GDP dropping from 4.19% in 19990 to 1.44% in 1991 and then stood at a negative growth rate of -0.8% in 1992 (WDI, 2015). GDP growth witness an all low value in the 1990's with a value of 2.24% per year on average for decades. GDP growth picked up in the 2000s and stood at 6.99% in 2007. Expectedly the growth in GDP dropped again to 1.53% in 2008 as a result of the global financial crisis, the political unrest following the 2007 elections might also have been a contributing factor to the drastic reduction in GDP in 2008. By 2010, economic growth has risen to 5.76%. in recent years, the foreign capital flow has been on the rise in Kenya's economy. Remittances and FDI has been the major source of foreign capital flow in this region with the economy witnessing an increase in remittances in 2014. Remittances rose from $570m in 2006 to $1.44b in 2014. On the other hand, FDI saw an increment from $507m in 2006 to $944m in 2014. Portfolio equity rose from $1.8m in 2006 60 $954m in 2014. Since FDI is mainly market seeking in Kenya, it has the potential of increasing GDP growth in the country (Abala, 2014). Series of security issues have been identified to have militated negatively on the inflow of foreign capital into Kenya's economy. One such limitation includes security issues prevalent in Kenya, insecurity of life and property evidenced by the bombing of the united state embassy in 1988, the Mombasa airport attack on an Israeli plane in 2002. The growing rate of terrorism perpetrated by Islamic group might also have been a factor in the decrease of FDI into the country in 2012. Negative Incidence might instill fear in

foreign investors and deter them from investing in Kenya thereby reducing capital flows in Kenya.

Economic growth in Kenya has been improved by the performance of its stock market, but this was only after the liberalization of its financial system in 1995. Prior to 1995, Kenya's economic performance was far from its potential during the 1980s and 1990s (the Republic of Kenya, 2003). In fact, from 1991 to 1993, Kenya experienced a drastic fall in its economic performance since independence. Growth rate stood still, the agricultural sector shrank at an annual rate of 3.9%, inflation pushed up 10 100% in 1993. It was only after the hard bit experienced within 1991 through 1993 did the government of Kenya began making policies, economic reforms to stabilize the economy and restore sustainable growth. With the assistance of Word bank and International monetary fund, a series of economic measures and structural adjustment programs were undertaken. Reforming the financial sector was part of the plan and thus was liberalized in 1995. Ever since the stock market has witness growth, although it has also recorded low performance at a certain time, for example, the turnover ratio in 1990 was valued at kshs0.2b but reached a peak of kshs3.3b in 1995 after the liberalization of the financial system. The turnover ratio had an all high of kshs10.3b in 2010 while market capitalization rose from kshs10.9b in 1990 to kshs13.10b in 2010. In terms of market capitalization as a percentage of GDP market capitalization (MCAP) has contributed 5.28% in 1990 and rose to a high of 49.2% in 2006, contributing almost half in total GDP. On the other hand, the turnover ratio rose from 2.10% in 1990 to 5.78% in 1997 and saw an overall high in 2006 after recording a value of 14.63%.

Foreign portfolio investment had an upward growth after liberalization of the capital market in 1995; it recorded a peak in 1997 from 3% in 1995 to 44% in 1997. The period

1996-1997 witnessed high participation of foreigners in the stock market leading therefore to a high performance of the market.

2.7. THEORETICAL REVIEW

For every issues and concept in the field of academics, there exist various theoretical assumptions on which such knowledge are based. The theories stipulate just how a particular concept evolve, thus in this study, various theories giving birth to the issues of capital flow would be reviewed, also these theories aim to establish the nexus between capital flow and economic growth.

2.7.1. The Harrod Domar Model

The Harrod Domar model was established independently by two researchers namely Roy. F. Harrod (1939) and Evsey Domar (1946). The Harrod – Domar model evolves from the classical Keynesian school of thought which champion's economic growth to be a function of the level of savings and productivity of capital. The Harrod Domar model (HDM) suggests that there is no natural reason for an economy to have balanced growth. The HDM shows how important it is for economies to seek a high level of savings and investment especially for developing the economy. Harrod (1939) postulated that the growth of an economy is positively related to its savings ratio and negatively related to capital-output ratio. HDM suggested that economies with higher savings allow for more investment in physical capital, as high levels of investment increase the production of goods and services in a country. The HDM suggest that economy rate of growth depends on the level of savings and productivity of investment. Thus, investment, savings, and technology were the key components fostering growth as acclaimed by the HDM, therefore increased investment would force the production possibility curve outward and create more wealth.

Although the HDM was originally created to help in the business world, the model was later adapted to explain economic growth. The implication was that growth is a function of the quantity of labor and capital as more investment would lead to capital accumulation which fosters economic growth. Developing nations have a lot to learn from this model, as developing economies have an enormous supply of capital and thus overgrows physical capital which slows down growth. Less developed countries (LDC's) have low incomes and are unable to raise savings levels, therefore the accumulation of physical capital stock through investment is low. Another implication of the HDM is that government policies must be formulated with the goal of raising savings and creating incentives so as to translate such savings into an investment that would bring required technological advancement. Thus to increase savings, an economy must either increase capital accumulation domestically or from abroad (Harrod, 1939).

The HDM explains three (3) forms of growth to include warranted growth, actual growth, and the natural rate of growth. Harrod and Domar see warranted growth as the rate of growth at which the economy does not expand indefinitely or go into recession. Actual growth describes the real rate of increase in nations GDP annually. Finally, natural growth is the growth an economy requires to maintain full employment.

The HDM is based on the following assumptions

I. The economy uses a fixed coefficient permitting no substitution between capital and labor in production.
II. There is no technical change
III. The labor force grows at the same rate as capital stock
IV. It assumes a closed economy

This model has meant much criticism and one of such is that there is no reason for growth to be sufficient to maintain full employment, this is based on the belief that the relative price of labor and capital is fixed and that they are used in equal proportions. Another major critic of the HDM is that it takes economic growth and development to be the same but in real economic growth is just a subset of economic development. HDM has been criticized for suggesting the need for borrowing to finance investment in capital without considering the repayment problems later on especially when the economy falls into recession. The HDM continually emphasize the need to increase savings and investment without paying attention to the need for income generation as capital accumulation in LDC's are low.

2.7.2. The Solow-Swan Model

The Solow-swan model was propounded by Robert Solow and Trevor Swan in 1956. This model was propounded to augment the weakness of the Harrod –Domar model. The Solow-swan model (SSM) is an economic model of long-run economic growth evolving from neoclassical economics. The SSM seeks to explain economic growth in the long run by looking at capital accumulation, labor or population growth and increase in the productivity i.e. technological progress. The Solow swan model states "If the savings ratio is constant and production is subject to the basic assumptions, the economy will move asymptotically to a golden age". This theorem implies that in as much production conditions are meant and economy saves a constant proportion of its income, then that economy will eventually approach a steady state growth path i.e. dynamic equilibrium growth path in which labor, capital, and income all grow at the same constant proportionate rates (Solow & Swan, 1956).

The standard Solow Swan model predicts that economies converge to their steady state equilibrium in the long run and that technological progress helps achieve permanent growth. An interesting implication of Solow Swan's model is that LDC"s should grow faster and eventually catch up to richer countries. This can only be made possible when lag in the diffusion of knowledge is removed, thus making a difference in real income shrink as poor countries receive better technology and information. Another is the efficient allocation of international capital since the rate of return on capital should be higher in poorer countries.

The Solow Swan model is based on the following assumptions

I. There are constant returns to scale
II. There are diminishing returns to an individual output.
III. Labor and capital are paid according to their marginal physical productiveness
IV. There is perpetual full employment of labor.
V. There is full employment of available stock of capital.
VI. Labor and capital are substitutable for each other.
VII. The savings ratio is constant

The SSM outlines how a steady economic growth rate can be accomplished with the proper amounts of labor, capital, and technology. The model suggests that an increase in capital investment increase growth but temporarily because the ratio of capital to labor goes up. It is believed by this theorem that a steady state growth path is reached when output, capital, and labor are all growing at the same rate so that output per worker and capital per worker are constant.

2.7.3. The Endogenous Growth Theory

The endogenous growth theory was developed to augment the weakness in Solow Swan neoclassical growth model. While the Solow Swan explains the long run growth rate to be a function of exogenous factors (labor, technology, and capital) the endogenous growth theory explains the long run growth rate of an economy based on endogenous factors. This theory was propounded by P.M Romer in 1994 in his article "The Origins of Endogenous Growth". In the article, Romer argued that economic growth is primarily the result of endogenous and not exogenous forces as proposed by the neoclassical economist. The endogenous growth theory (EGT) holds that economic growth can be attained only with investment in human capital, innovation, and knowledge. This theory also focuses on positive externalities and spillover of a knowledge-based economy which will lead to economic development. It can thus be inferred from this theory that although labor supply and technological progress are important for economic growth, nations must seek to invest in human capital. Nations can invest in human capital by making an investment in research and development so as to foster an increase in knowledge which would lead to a better and more efficient way of doing things resulting in economic development. The transfer of knowledge from advanced economies to LDC's is another way human capital can be fostered especially through foreign direct investment where the transfer of knowledge is attained through labor training. The government must invest in education as quality knowledge transcends into technological advancement. Other implications of the endogenous theory are that policies that embrace openness, competition, change, and innovation will promote growth (Fadare, 2010).

The endogenous growth economists believe that innovation and more investments in human capital are the engines of growth, therefore government and private sector institutions are called upon to nurture innovation initiatives while offering incentives for

individuals and business to be more creative. Under this theory, knowledge-based industries play a particularly important role especially telecommunication software and other high technology industries.

One major limitation of endogenous growth theory is in its inability to explain conditional convergence reported in the empirical literature (Sachs & Warner 1997). Another failure of this theory relates to the assumptions of diminishing returns to capital, it is being argued that the theory has proved to be no more successful than exogenous growth theory in explaining the income divergence between the developing and developed worlds (Parante, 2001).

2.7.4. The Differential Rate of Return Hypotheses

This hypothesis explains the rationale behind the flow of capital from advanced economies to emerging economies. The hypotheses postulate that capital flow (foreign direct investment) from economies having a low rate of return to economies with a high rate of return leads to the equality of ex-ante real rates of return. The reason behind this is that economies having a low rate of return wants to equate the marginal return on capital with the marginal cost of capital. This hypothesis assumes that investors are risk neutral, concluding that the rate of return differentials is the only reason why investment decisions are made. By assuming risk neutrality, the hypotheses imply that the investors consider the domestic and foreign investment to be perfect substitutes.

This hypothesis has meant criticism, one noteworthy criticism can be found in the article presented by Lucas Robert (1990) titled " why doesn't capital flow from rich to poor countries?" in the article Lucas argued that capital does not always flow from developed to developing countries despite developing countries have higher rate of return and lower levels of capital per worker. Although classical economic theory believes that capital

should flow from developed economies to underdeveloped ones because of the effect of diminishing returns of capital. LDC's have a lower level of capital per worker, thus the scarcity of capital indicates that the returns related to the infusion of capital are higher in developing economies than in developed ones. Thus investors are expected to respond to such an opportunity to invest, but on the contrary little capital flows from rich countries to poor ones. This phenomenon is known as the *Lucas Paradox*. The Lucas Paradox is said to be a function of the differences in fundamentals that affect the structure of production in the economy (Technological differences, missing factors of production, Government policies and institutional structure). Secondly, Lucas Paradox is attributed to the imperfections existing in the capital market i.e. sovereign risk (indigenization policies) and asymmetric information. Although the expected return on investment might be high in many developing economies, capital does not flow there because of the high level of uncertainty associated with those expected returns.

One basic limitation in the differential rate of return hypotheses is that it is inconsistent with observations that countries experience inflows and outflows of capital simultaneously. This is because a rate of return differentials implies capital flows into one direction only and not vice versa.

2.7.5. The Portfolio Diversification Hypothesis

This hypothesis hovers round the Markowitz (1952) and Tobin's (1969) portfolio diversification theory. This theory contends that differences in the rate of return are not the only factor that initiates the flow of capital, rather the need to diversify the risk. This hypothesis is valid as investors do not always risk neutral in reality. Since returns to be earned are uncorrelated in different economies, investors shift capital to relatively stable economies thereby reducing the overall risk of the investor. Because of risk aversion, the

difference in the rate of return will not induce capital flow in one direction until the differentials disappear through arbitrage. Rather, capital mobility would be constrained by the desire to minimize or reduce risk through diversification.

2.8. EMPIRICAL LITERATURE

2.8.1 Foreign Capital Flows, Stock Market Performance and Economic Growth: Empirical studies from Sub- Saharan African

In recent times, there is a growing interest in the field of academics concerning foreign capital and economic growth nexus. Policy makers have also sought to ascertain the role played by foreign capital in the development of their economies. For example, Duba (2016) investigated the impact of foreign capital flows on economic growth in Sub Saharan African (SSA) using a system Generalized method of moments for the period spanning 1996-2014. The study was conducted in 33 countries in SSA, and findings revealed that aggregate capital flows (current account balance) had no significant impact on economic growth. Capital flows (remittances, official development assistance, foreign direct investment) had no significant impact on economic growth with the exception of ODA that showed a positive impact on growth. The role of financial institution measured by broad money supply was inversely related to growth. The study thus concluded that capital flows had no relationship with growth under the period of study.

Poku (2016) attempted to identify which form of capital inflows enhances economic growth in 45SSA countries. Unlike prior studies, his study adopted the pooled mean group estimating technique and for the period spanning 1990 to 2010. The three (3) forms of capital flow tested proved to enhance growth. Foreign aid, FDI and Remittances (REM) were all identified to exhibit a positive and statistically significant relationship with economic growth measured by Gross domestic product. The study, therefore,

recommended the design and implementation of a good fiscal and monetary policy to complement the flow of foreign aid to the country for the realization of its full impact on growth.

Kanu (2015) investigated the impact of foreign capital flows on economic growth with an emphasis on Nigeria, Ghana and South Africa. Adopting a panel linear regression model, studies revealed foreign capital inflow and economic growth had no significant relationship in the long run in South Africa and Nigeria. It was also found that only lagged value of the Gross domestic product (GDP) in South African and Nigeria was significant and positive in the long run while other inflow indicators had a significant short-run relationship. In Ghana, capital flow indicators (FDI, FPI, ODA, and REM) all exhibited a nonsignificant relationship with GDP with the exception of FDI and lagged value of GDP. The study thus concluded that most flows into SSA were based on speculations targeted at the non-priority sectors of the economy.

Using panel data set for 20 SSA countries, Chika (2014) sought to identify the determinants and impacts of foreign direct investment for the period spanning 1996 to 2010. Findings revealed that market size, infrastructure development, return on capital, control of corruption, trade openness are important determinants of FDI in SSA countries. Surprisingly the study found out that natural resource endowment was not a significant determinant of FDI flow. Nyan'oro (2017) explored the relationship between economic growth and capital inflows in 26 SSA countries for the period spanning 1980 to 2011. The study revealed that portfolio equity and debt were discovered to be inversely related to growth. Private equity and debt were discovered to be inversely related to growth. The study tested the volatility of the portfolio and private equity on economic growth and found no relationship between variables. Total capital inflows both gross and net inflows

had an inverse effect on growth, while the volatility of total gross capital inflow had a positive effect on growth.

Ahamada and Cowlibaly (2013) investigated remittances as an aggregate of foreign capital and then explored its relationship with economic growth for the period spanning 1980-2007. Employing panel Granger causality for 20 SSA countries, the study indicated no causality between remittance and growth. The study, therefore, made an explanation as to why remittance does not increase growth in SSA countries as result indicated that remittances do not increase physical capital investment. Adams and Klobodu (2016) examined the joint role of remittances regime durability and economic growth in 33 SSA countries using a system Generalized method of moments (GMM). The result indicated that remittances do not have a robust impact on economic growth in SSA. Regime durability was negatively and significantly related to economic growth while regime type was positively and significantly correlated with growth. The implication of the study was that the growth effect of remittances is enhanced in the presence of a democratic and stable government.

Ahoure (2007) examined the joint effect of remittance, governance and economic growth in SSA countries using a System GMM for the period spanning 2002-2006. Result for the 32 SSA countries indicated a negative effect of remittance on the growth of GDP per capita when governance is controlled for. The study indicated that a nation with a stable political environment as well as good governance has an improved ability to affect remittance and therefore its impact on economic growth. It was concluded that efforts to enhance good governance are central for the better allocation of remittance toward activities likely to support economic growth in SSA countries.

Lartey (2010) investigated the joint role of remittance and investment on economic growth in SSA countries. He also sought to examine the impact of remittance on growth through capital accumulation. 36 SSA countries were analyzed using a system GMM. The study revealed a positive relationship between REM and economic growth as well as a positive interaction effect between remittance and financial depth on growth. The result indicated a threshold values for two main indicators of financial development in which the effect of remittance on growth was positive. The study indicated that remittance impact on growth through investment, thus the study asserts that remittance contributes toward a stable macroeconomic environment and growth through consumption and smoothing effect.

Atanda and Charles (2014) examined nine (9) countries in the SSA using panel cointegration technique to investigate the relationship between inward remittance and economic growth in SSA. The result indicated that remittance had a positive and significant relationship with GDP. The effect of financial development was inversely related to GDP and was significant. Physical investment (gross fixed capital formation) was positively and significantly related to growth while investment in human capital had a negative and insignificant result. The study also showed financial development to be inversely related to remittances. On the contrary, Ngongang (2015) saw a positive link between financial development and economic growth in 21 SSA countries.

The impact of foreign direct investment and economic growth on environmental quality was examined by the study of Ojewumi and Akinlo (2017). Using a panel vector autoregressive and panel error correction mechanism to allow for feedback between variables in the model. A study of 33 SSA countries suggested the existence of a dynamic interaction between FDI and economic growth and environmental quality. The study recommended that the government of SSA strike a balance between investment

friendly policies and environmental protection policies such that FDI attracted into the region will be those that will improve the environmental quality of the environment.

The link between stock market performance and economic growth in SSA has been scantly explored by researchers although the relationship between financial development and economic growth in this region has been well established in the literature. One such study of stock market performance and economic growth in SSA is that carried out by Osamwonyi and Kasimu (2013). The study analyzed the impact of the stock market on economic growth in SSA with peculiarity to Ghana, Kenya, and Nigeria. The Granger causality test was employed to test for the direction of causality between the stock market and economic growth while the panel regression technique was used to test for level relationship of the variables. Findings indicated no causal relationship between stock market development and economic growth in Nigeria and Ghana, while bi-directional causation between the stock market and economic growth was evidenced in Kenya. The pooled regression revealed that stock market development and economic growth have a weak relationship indicating that the pooled data for the stock market of the three (3) economies do not have a significant effect on the combined economies. The study recommended that policymakers and regulatory bodies should formulate and implement policies that will attract investors and avail the real sector of the economy the much-needed fund for production and encourage listing of companies that contributes largely to GDP in the national stock exchange.

Alagidede and Ibrahim (2018) analyzed the effect of financial development on economic growth in SSA. Using time series data for the period 1980-2014 in 29 SSA countries, the system GMM revealed that while financial development supports economic growth, the extent to which finance helps growth depends on the simultaneous growth of the real and financial sector. It was also observed that rapid and unbridled credit growth comes at a

huge cost to economic growth leading to the financing of risky and unsustainable investments and fueling inflation.

Girmay (2005) analyzed the link between financial development and economic growth in 13 SSA. Using Vector autoregressive (VAR) model and cointegration, the result indicated evidence of the existence of a long run relationship between financial development and economic growth. Causality test indicated causality running from financial development to economic growth in eight economies while a bidirectional causal relationship was found in six economies. The implication of the finding was that African countries can accelerate their economic growth by improving their financial system.

Akinlo and Egbetunde (2010) examined the impact of financial development on economic growth in 10 SSA countries namely Central African Republic, Congo Republic, Gabon, Nigeria, Zambia, Kenya, Chad, South Africa, Sierra Leone, and Swaziland. Studies from the Vector error correction mechanism (VECM) indicated a long-run relationship between financial development and economic growth in the ten (10) SSA countries. Central African Republic, Congo Republic, Gabon, and Nigeria were all observed to have a unidirectional causality running from financial development to economic growth. A contrary result was found in Zambia as causality ran from economic growth to financial development. Results indicated bidirectional causality for Kenya, South Africa, Sierra Leone, and Swaziland. The study concluded by making recommendations as to the need to develop the financial sector through appropriate regulatory and macroeconomic policies.

2.8.2. **Foreign Capital Flows, Stock Market Performance, and Economic Growth: Empirical studies From Nigeria.**

The impact of foreign capital flow on economic growth in developing countries in general and Nigeria, in particular, has been subjecting of investigation. Okafor, Ugochukwu, and Chijindu (2016) investigated the impact of foreign capital inflows on the growth of Nigeria economy. Time series data spanning 1981-2014 was analyzed using a Toda Yamamoto approach to identify the direction of causality between foreign capital flows and economic growth. Result revealed a bidirectional causality running from GDP to FDI. A unidirectional causality running from FPI to GDP was also found. Findings also indicated a unidirectional causality from foreign Aid to GDP. The study concluded by stating that a positive relationship exists between capital flows and economic growth in Nigeria.

Olaleye (2015) investigated the impact of capital flows on economic growth in Nigeria for the period spanning 1983-201. Granger causality test was used to identify the direction of causality between capital flows and economic growth in Nigeria, the study constructing the model to include FDI, Exchange rate, Trade openness, and GDP. The result indicated that FDI, Exchange rate, and Trade openness accounts for a large share of variations in GDP. All variables were observed to exhibit a short run relationship with the exception of FDI. The study thus recommended that the government continue to pursue a trade and foreign exchange policies that would ensure competitiveness.

Using time series data spanning 1980-2013, Edu and Bassey (2015) investigated the impact of foreign private capital flow and economic growth in Nigeria. The study employed the ordinary least square analytical technique and findings revealed that foreign private flow had a positive but insignificant effect on economic growth and

domestic investment while foreign private flow had a negative non-significant effect on national savings. The study recommended that the Nigeria government should make a re-assessment of policies concerning foreign direct investment as well as institutional and macroeconomic variables

Nwosa and Amassoma (2014) investigated the relationship between capital flows and exchange rate in Nigeria. The Granger causality test and Error Correction Mechanism were employed to test the data set spanning 1986-2011. FPI and FDI were used in capturing capital flows. Findings revealed no causality between capital inflows and exchange rate. Findings also indicated FPI to be positively related to exchange rate while FDI was found to be inversely related to the exchange rate in the long run. There was no short relationship between capital inflows and exchange rate and it was concluded that the relationship between capital flow and exchange rate in Nigeria is a long run phenomenon.

Breaking down foreign capital inflows into its various aggregates, Ololade and Ekperiware (2015) chose to consider the effect of FPI on the development of Nigeria bond market. Questionnaires were distributed to the director of finance and chief of finance of 128 firms in the manufacturing sector. The Ordinary least square (OLS) analytical technique was used to examine secondary data collected from the 128 firms. The result indicated a significant relationship between FPI and bond yield. The study concluded that factors attracting foreign investors into the bond market in Nigeria are critical and if well managed by policymakers could attract FPI.

Okafor, Chijindu and Chinyere (2015) examined the impact of foreign investment on economic growth in Nigeria. The Granger causality test indicates that FPI and FDI had a positive significant effect on economic growth although the result indicated FPI to be a

better contributor. Similarly, Baghebo and Apere (2014) examined foreign portfolio investment and its impact on economic growth in Nigeria. Using the Johansen co-integration and ECM techniques, the result indicated that FPI, Market capitalization (MCAP) trade openness (TOP) had a positive long-run relationship with GDP. Akinbobola and Ibrahim (2017) investigated the impact of foreign portfolio investment and economic growth in Nigeria under democratic settings for the period 1986-2013. The dynamic VAR was employed to estimate time series data and findings revealed that FPI was more stable during democratic periods than the military period. The result also indicates the existence of a long run relationship between FPI and growth in Nigeria. Democracy had a positive and significant effect on economic growth in Nigeria. The study concluded by stating that the impact of FPI on economic growth was very large and significant in the long run. Democracy itself affected economic growth positively.

Akinbobola, Ibrahim, and Odusanya (2017) revisited their work on FPI and economic growth in Nigeria using a Wald test causality for the same period. The result indicated a bi-directional causality between FPI and economic growth. it also established the complementary role of domestic savings and interest rate to the growth of the economy. Oshota and Badejo (2014) looked at the impact of Remittances on economic growth in Nigeria for the period 1981-2011. Using the ECM approach, findings indicated a long-run relationship between remittances and economic growth in Nigeria. Remittance showed a negative relationship with output in the short run, while foreign Aid was observed to have a long and short-run relationship with GDP. TOP had a positive short and long-run impact on growth. FDI was seen to be positively related to GDP only in the short run. Gross fixed capital formation had a positive but insignificant impact on GDP.

Sani and Hassan (2015) empirically examined the nexus between international remittances and economic growth in Nigeria. The result indicated that remittances had a

positive significant relationship with GDP. The role of financial development was established as it had a positive impact on GDP indicating the role of financial institution. Inflation had a negative relationship with GDP, while TOP had a positive significant relationship with GDP. The study identified world GDP growth to be a contributor to GDP growth in Nigeria as less developed economies depends on other economies to grow.

Uwubanmwen and Ogiemudia (2016) analyzed the impact of FDI on economic growth in Nigeria during the 1979-2013. The error correction mechanism and Granger causality technique were used in analyzing the time series data. Analyses indicate that FDI has both immediate and time series lag effect on the Nigeria economy in the short run. FDI was observed to have an insignificant negative effect on the Nigeria economy in the long run during the period under review. The Granger causality analyses revealed that FDI has a significant positive effect on the growth and development of the Nigeria economy in the short run.

Oseni and Enilolobo (2011) looked at the joint role of FDI and stock market development on economic growth in Nigeria. Using cointegration, error correction mechanism, and the Engle, Granger causality test, the study indicated that both FDI and stock market development have cyclical movement. The findings suggest that exchange rate appreciation enhance growth in Nigeria and there is the need for more investment in the market. Samuel, Idenyi, and Ifeyinwa (2016) investigated the impact of FPI on stock market growth in Nigeria for the period 1986-2014. Employing cointegration, Vector Error Correction Technique, and Granger causality test, the findings indicated a long run significant impact of FPI on the growth of stock market although there was no significant causal relationship between FPI and stock market growth. Likewise, Aham (2017) employed the ordinary least square analytical technique and findings showed a positive

significant relationship between All Share index and foreign portfolio investment. FPI was observed to have a positive relationship with MCAP.

There exist a series of studies focused on the relationship between the performance of the stock market and economic growth. One of such studies is that carried out by Patricia (2015) who sought to determine the nexus between the capital market and economic growth in Nigeria for the period spanning 1981-2011. Employing the Johansen co-integration and Granger causality test, the result indicated a long run relationship between capital market and growth of the economy. The study, therefore, recommended that various level of government should be encouraged to raise funds from the capital market so as to carry out developmental programs. This is so because the capital market acts as a leeway to free idle resources.

Maria (2014) investigated the causal relationship between stock market performance and economic growth in Nigeria. Using quarterly data for the period 1990-2010, findings indicated a long-run equilibrium relationship between stock market performance and economic growth. Causality test indicated a bi-directional causality between stock market performance and economic growth. Findings from co-integration test indicated that stock market performance exerts a positive impact on economic growth in Nigeria. On the contrary, Riman, Esso and Eyo (2008) found unidirectional causality running from stock market performance to economic growth for the period 1970-2004. The study concluded that the stock market is significant in determining economic growth in Nigeria.

Ologunwa and Sadibo (2016) empirically ascertained the role of capital market development on economic growth in Nigeria using time series data. The study employed Autoregressive Distributed Lag (ARDL) technique and the result indicated that capital market indicators (Market ratio, turnover ratio) were both significant and positive drivers

of economic growth in Nigeria and the stock market was seen to affect economic growth through mobilization. The study recommended that the stock market be made attractive to foreign economies.

Uchenna, Nwanneka, Taiwo, and Emena (2016) sought to determine the impact of capital market development on the growth of the Nigeria economy. Using time series data spanning 1981-2014, the VECM was used in showing the short and long run dynamics of the model. The result indicated that in the short run, turnover ratio and MCAP had a significant negative effect on GDP. The study identified a negative effect of inflation on GDP although not statistically significant while the traded ratio was inversely related to GDP. The Granger causality test indicated a unidirectional causality running from MCAP, value traded ratio, Turnover ratio to GDP. The Paper concluded by establishing a nexus between stock market development and economic growth in Nigeria.

Ebun, Olasuyi, Micheal (2018) analyzed the impact of stock market development on economic growth in Nigeria for a period spanning 1985-2014. MCAP, market turnover ratio was used as a proxy for stock market development while GDP proxy economic growth. The result suggested that stock market development is not a strong determinant of economic growth in Nigeria. The study recommended that policymakers should encourage the flow of FDI so as to ensure improvement in the Market Capitalization. It also encouraged small and medium entrepreneurs to access the stock market for funds.

2.8.3. Foreign Capital Flow, Stock Market Performance and Economic Growth: Empirical studies from South Africa.

There has been an ongoing debate as to the role of foreign capital flows in economic growth in South Africa; Wesso (2001) employed the VAR and ECM technique for quarterly data spanning 1991-2000 in ascertaining the effect of net capital flows on real GDP. The result indicated a positive relationship with economic growth in the long run, although a negative relationship was observed to exist between capital flows and inflation rates.

Tswamuno, Pardee, and Wunava (2007) investigated the relationship between real per capita GDP and liberalization of the capital account. The study employed the OLS estimation technique on quarterly data set spanning 1975:3 to 2005:1. The study revealed that FPI prior to liberalization had no positive effect on economic growth, meanwhile stock market turnover after liberalization had a negative effect on economic growth in South Africa.

Dzangare (2011) examined the nexus between private capital flows and real GDP growth in South Africa using quarterly data. Findings revealed a positive relationship between private capital flows and GDP growth. Fedderke and Romm (2004) explored the impact of growth and development of FDI into southern Africa. FDI was found to be capital intensive and having a positive impact on economic growth.

Aziakpono (2008) analyzed the effect of financial integration and financial development on economic growth for the Southern Africa Customs Union (SACU). Capital flows were used as a measure of financial integration. The study looked at the relationship between FDI, debt liabilities, portfolio asset liabilities and economic performance of South Africa from 1970 to 2004. The result indicated a positive and statistically significant relationship between FDI, portfolio equity and economic growth. Meanwhile, debt liabilities showed an inverse and significant relationship with economic growth.

Mazenda (2014) studied the effect of FDI on economic growth in South African using time series data from 1980-2010. Results from VECM estimation indicated that FDI, exchange rate and debt had a negative impact on growth. While domestic investment had a positive impact on growth in the long run. Moolman et al (2006) explored the link between macroeconomic variables and FDI and its resultant impact on economic growth in South Africa. Market size, openness, and infrastructural development are issues that South African policymakers need to focus on when seeking to attract FDI. Findings also showed a positive effect of FDI on growth.

Sunde (2012) explored the role of the financial sector in the growth of the South Africa economy for the period 1975-2010. The result indicated that the financial sector has a strong explanatory power as to the variations of GDP in South Africa. The Granger causality test results revealed bidirectional causality between variables of the study. Gondo (2009) investigated the development of the financial sector and its impact on economic growth using time series data spanning 1970-1999. Results indicate that stock market liquidity and credit to the private sector have a complementary and statistically progressive impact on economic growth. The study concluded that an active stock market and a healthy banking sector drive economic growth in South Africa.

2.8.4. Foreign Capital Flow, Stock Market Performance and Economic Growth: Empirical studies from Kenya.

Ojiambo and Ocharo (2016) explored the linkage between foreign capital inflows and economic growth in Kenya. The study employed Granger causality to test for the direction of causality between variables of study while the long run estimates were established using the ARDL technique. The result indicated a unidirectional causality running from economic growth to FDI, labor to Foreign Aid, macroeconomic policy to

FDI. Long run estimates showed Aid to be positively and significantly related to GDP when the macroeconomic policy is controlled for. On the other hand, remittances were found to have a negative short-run effect on economic growth but a positive effect after a period of one year. A negative relationship between FDI and economic growth in Kenya was established by the study.

Abdillahi and Manini (2017) investigated the nexus between private capital inflow, financial development and economic growth in Kenya for the period spanning 1970 to 2014. The Johansen Co-integration test, VECM, OLS were used in analyzing the sourced data. The empirical result revealed a unidirectional causality running from FDI to economic growth and economic growth to cross border interbank borrowing. Portfolio investment and cross border interbank borrowing were observed to be positively insignificant, while FDI, government expenditure was positively and statistically related to GDP growth. On the contrary Gross, fixed capital Formation (GFCF) and human capital were inversely related to growth and statistically significant. The study concluded that capital flows fosters economic growth above any effect on investment rate, but only for economies which have attained a moderate level of financial sector development.

Amanja and Morrissey (2004) accessed the impact of capital flows in Kenya in the light of Foreign Aid and investment for the period spanning 1964-2002. The VECM was employed to determine the short and long run dynamics of the model. The result indicated that import was a strong beneficial element affecting per capita income in Kenya. Net external loans were found to have an inverse relationship with growth in the long run. While private investment had a negative relationship with government investment and import but a positive relationship with foreign Aid.

Irungu (2016) carried out a study on the effects of Diaspora Remittance on the Kenya economy for the period spanning 2004-2013. The study used descriptive analysis as well as correlation analysis. Results indicated that Diaspora remittance has a positive and significant relationship with GDP, bank interest rate and exchange rate. Klio, Soi and Buiguit (2014) investigated the impact of workers' remittances on economic growth in Kenya. The study employed time series data set and was analyzed using the OLS technique. The study indicated a positive and highly significant relationship between workers' remittances and GDP, indicating that higher economic growth is related to higher remittances. The study identified Gross capital formation to have a positive effect on economic growth while a change of exchange rate regime from fixed to floating had a positive impact on economic growth.

Aboulezz (2015) carried out an analysis of remittance and economic growth nexus in Kenya. The study employed Granger causality to test for the direction of causality between variables and the ARDL was used for the determination of long-run estimate. The result indicated that international remittances are significant factors influencing the economic growth in Kenya and it was concluded that economic growth in Kenya is largely driven by international remittances.

The effect of foreign direct investment inflow in Kenya on economic growth, export, and balance of payment (BOP) was empirically examined by George (2014). The study observed that FDI inflow into Kenya had a positive relationship with economic growth. The result further indicated that FDI and the level of export in Kenya are negatively connected. The correlation between FDI and BOP was found to be positive. The study concluded that the relationship between FDI and GDP is positive but the significance would depend on the type of investment made by the host country.

Mwangi (2013) analyzed the effect of FDI on economic growth in Kenya using time series data spanning 2003-2012. Descriptive statistics and multiple regressions were used to estimate the data. The result indicated a positive nexus between total savings of citizens and economic growth in Kenya. Similarly, findings revealed a positive relationship between total fixed asset investment and economic growth. it was the recommendation of the study that the government creates incentives to boost the flow of FDI in Kenya.

Subject to the inability of prior studies to capture the role of institutional quality in economic growth, Meah, Onono and Ocharo (2016) carried out a study on the joint role of foreign direct investment and institutional quality in economic growth in Kenya. Results indicated that FDI had a statistically positive relationship with economic growth. while institutional quality was found to be a key player in determining economic growth. Personal consumption, expenditure, private investment, and political risk were also found to affect economic growth positively.

Ocharo, Wawire, Kosimbei and Ng'ang'a (2014) identified the nexus between private capital inflows and economic growth in Kenya. The study attempted to identify the direction of causality between FDI, FPI, cross border interbank borrowing and economic growth. The empirical result indicated a unidirectional causality running from FDI to economic growth, and from economic growth to cross border interbank borrowing. Long run estimate indicated that FDI was positively and statistically significant, while FPI, cross border interbank borrowing were also positive although not statically significant. The study made recommendations that Kenya government should build an environment that can attract FDI and pursue a high and sustainable economic growth rate so as to attract cross border interbank borrowing

Omonga (2014) explored the role of financial development and economic growth in Kenya for the period (1980-2011). The study employed the ARDL bound test and Granger causality to determine the relationship between financial development and growth. The Granger causality showed a bi-directional causality between financial development and economic growth in Kenya. The study recommended that the government strengthen reforms in the financial sector so as to attract investors and improve the efficiency of production activities in the economy.

2.8.5. Foreign Capital Flow, Stock Market Performance And Economic Growth: Evidence From Other Emerging Economies

Sethi (2013) examined the causal relationship between foreign capital inflows and economic growth in India using time series data. Pairwise Granger causality test was used, and the empirical result indicated a long-run equilibrium relationship restoration between variables of the study. Findings also indicated causation running from economic growth to FDI and Economic growth to FPI. Ali (2014) investigated the relationship between foreign capital flow and economic growth in Pakistan. The Johansen Co-integration and Granger causality were used in analyzing the data set spanning 1972-2013. Results revealed a negative impact of capital flow on economic growth in the long run. While a unidirectional causality running from debt service, FDI, Inflation, and Literacy to economic growth in the short run was established by the study. Bidirectional causality was found between remittance and economic growth. The study recommended the mobilization of domestic resource, the building of physical infrastructure and financial development.

Fambon (2013) examined the impact of foreign capital inflow on economic growth in the Cameroonian context. The study employed the ARDL approach to co-integration and

time series data spanning 1980-2008 was the scope of the study. The empirical result revealed that FDI and the domestic capital stock had a significant positive impact on growth both in the short and long run. The labor force was found to be inversely related to GDP both in the long and short run.

Orji, Uche, Ilori (2014) explored the impact of foreign capital flows on growth in the West African Monetary Zone (WAMZ) for the period 1981-2010. FDI, FPI, ODA, REM were selected to proxy capital flow. Empirical findings showed that the impact of capital flows on growth varied among economies chosen for the study. Chorn and Slek (2017) explored 77 developing countries so as to determine the impact of foreign capital inflow on economic growth. panel data were analyzed using panel least square. The result indicated that ODA and FDI had a positive and significant impact on economic growth. The study also observed that the marginal impact of ODA and FDI on economic growth decrease is given the rising level of initial income per head.

Bayar (2014) explored the nexus between savings, FDI and economic growth in emerging Asian economies and found out that Gross domestic Savings, gross domestic investment, and FDI had a positive effect on economic growth in the long run. Reza, Reza, Wang (2018) analyzed the impact of FDI on economic growth in Bangladesh. The study employed Johansen Co-integration and VECM in analyzing data set spanning 1990-2015. Empirical findings indicate a positive relationship running from FDI to GDP in the long and short run.

Duasa and Kassim (2009) examined the role of FPI in the growth of Malaysia's economy employing the Toda Yamamoto test for causality to determine the direction of causality.The result indicated that economic performance is the major pull factor in attracting FPI into the country. Nyeadi and Atiga (2014) investigated the link between

remittances and economic growth in Ghana. The study employed the Granger causality and cointegration test. Empirical findings indicated a unidirectional causality running from remittance to economic growth in Ghana.

Faysissa and Nsiah (2010) explored the effect of remittances on economic growth and development in Latin American countries.The result indicated that remittances had a positive and significant effect on the growth of Latin American countries where the financial systems are less developed by providing an alternative way to finance investment and helping to overcome liquidity constraint.

Niranjala (2015) carried out an investigation to ascertain the relationship between stock market development and economic growth in Sri Lanka. Granger causality test was employed to analyze time series data and findings revealed that stock market performance played a major role in Sri Lanka for the period 1990-2013. Bayar, Kaya, and Yidrim (2014) looked at the effect of stock market development on economic growth in the context of Turkey economy. The study employed Johansen Cointegration and Granger causality test. Meanwhile, findings indicate that a long run relationship exists between MCAP, the total value of stocks traded, turnover ratio of stock trading. The causality test indicated a unidirectional causality from stock market indicators to economic growth.

Finally, Wild and Lebdaoui (2014) explored the relationship between stock market performance and economic growth in Morocco for the period 2000-2013. The result indicated stock market development and economic growth had a long run relationship, while a unidirectional causality was established running from Morocco All share Index, Traded Volume and stock market index to Real GDP. The study suggested the presence

of a threshold level before a positive interaction between the real and financial sector takes effect.

2.9. Gaps in the Empirical Literature

Premise of the review of literature, much study has been carried out on the role of foreign capital flow and economic growth in Sub Saharan African and other economies reviewed. Much study has also been done to establish the relationship between financial development and economic growth in the same region and country specifics(Girmay,2005; Alagidede & Ibrahim,2018; Akinlo & Egbetunde,2010; Aziakpono,2008)). Although only a few studies have attempted to carry out a joint study on foreign capital and financial development on economic growth in Sub Saharan countries (Onono & Ocharo,2016; Ahoure,2007; Lartey,2010), such studies have consistently limited their scope to the banking industry is a proxy for financial system development. There has been death in the literature as to the use of the stock market as a proxy for financial development, thus this study introduces the stock market which happens to be a vibrant part of the financial system of any economy. The stock market was also introduced in the study so as to determine its role in allocating resources especially capital flowing from external economies.

It is of interest to note that past panel based studies conducted have only limited itself to the use of estimation techniques such as the Generalized Methods of Moments (GMM)(Alagidede & Ibrahim, 2018), Vector Error Correction Model (VECM)(Akinlo & Egbetunde, 2010), Panel Co-integration analysis (Bayar, 2014) Panel Least Square (Chorn & Slek, 2017), Auto-Regressive Distributed Lag (ARDL) (Fambon, 2013). Only a handful of studies have employed the newly established Pooled Mean Group estimator technique in the SSA region (Poku, 2016), it is in the light of this that this study intends

to fill the gap by employing the use of the PMG technique. The use of this methodology is also necessitated by its ability to estimates short-run estimates along with their various speed of adjustment across cross sections and avoids serial correlation and endogeneity.

Summary of Empirical Literature

S/N	**Authors & Year**	**Region/Country**	**Methodology**	**Findings of the study**
Studies from SSA				
1	Girmay (2005)	13 SSA	Vector autoregressive (VAR) model and Johansen cointegration Technique	The result indicated evidence of the existence of a long run relationship between financial development and economic growth. Causality test indicated causality running from financial development to economic growth in eight economies while a bidirectional causal relationship was found in six economies.
2	Ahoure (2007)	32 SSA countries	System GMM	Result for the countries indicated a negative effect of remittance on the growth of GDP per capita when governance is controlled for.
3	Akinlo and Egbetunde (2010	10 SSA	Vector error correction mechanism (VECM)	Studies from the indicated a long-run relationship between financial development and economic growth in the ten (10) SSA countries.
4	Lartey (2010)	36 SSA countries	system GMM	Study revealed a positive relationship between REM and economic growth as well as a positive interaction effect between remittance and financial depth on growth. The result indicated a threshold values for two main indicators of financial development in which the effect of remittance on growth was positive
5	Osamwonyi and Kasimu (2013).	Ghana, Kenya and Nigeria	Granger causality test and panel regression technique	Findings indicated no causal relationship between stock market development and economic growth in Nigeria and Ghana, while bi directional causation between the stock market and economic growth was evidenced in Kenya. The

				pooled regression revealed that stock market development and economic growth have a weak relationship indicating that the pooled data for the stock market of the three (3) economies do not have a significant effect on the combined economies.
6	Ahamada and Cowlibaly (2013)	20 SSA countries	panel Granger causality	study indicated no causality between remittance and growth.
7	Chika (2014)	for 20 SSA countries	Panel Least Square	Findings revealed that market size, infrastructure development, return on capital, control of corruption, trade openness are important determinants of FDI in SSA countries.
8	Atanda and Charles (2014)	(9) countries in the SSA	panel cointegration technique	The result indicated that remittance had a positive and significant relationship with GDP. The effect of financial development was inversely related to GDP and was significant. Physical investment (gross fixed capital formation) was positively and significantly related to growth while investment in human capital had a negative and insignificant result.
9	Ngongang (2015)	21 SSA countries.	dynamic panel GMM technique	saw a positive link between financial development and economic growth.
10	Kanu (2015)	Nigeria, Ghana and South Africa	panel linear regression model	findings revealed foreign capital inflow and economic growth had no significant relationship in the long run in South Africa and Nigeria.
11	Duba (2016)	33 countries in SSA	system Generalized method of moments	The study finds that capital flows had no relationship with growth under the period of study.
12	Poku (2016)	45 SSA countries.	Pooled Mean Group (PMG)	The three (3) forms of capital flow tested proved to enhance growth. Foreign aid, FDI and Remittances

				(REM) were all identified to exhibit a positive and statistically significant relationship with economic growth measured by Gross domestic product.
13	Adams and Klobodu (2016)	33 SSA countries	Generalized method of moments (GMM	The result indicated that remittances do not have a robust impact on economic growth in SSA. Regime durability was negatively and significantly related to economic growth while regime type was positively and significantly correlated with growth.
14	Nyan'oro (2017)	26 SSA countries	System GMM	The study revealed that portfolio equity and debt were discovered to be inversely related to growth. Private equity and debt were discovered to be inversely related to growth.
15	Ojewumi and Akinlo (2017	33 SSA countries	Panel VAR and Panel ECM	The study suggested the existence of a dynamic interaction between FDI and economic growth and environmental quality.
16	Alagidede and Ibrahim (2018)	29 SSA countries	system GMM	Finding revealed that financial development supports economic growth, It was also observed that rapid and unbridled credit growth comes at a huge cost to economic growth leading to the financing of risky and unsustainable investments and fueling inflation.
Studies From Nigeria				
17	Riman, Esso and Eyo (2008)	Nigeria	Johansen Cointegration and VECM	Findings indicate a unidirectional causality running from stock market performance to economic growth in Nigeria.
18	Oseni and Enilolobo (2011)	Nigeria	Johansen cointegration, ECM and the Engle,	the study indicates that both FDI and stock market development have cyclical movement. The findings suggest that exchange rate

			Granger Causality test	appreciation enhance growth in Nigeria and there is a need for more investment in the market.
19	Nwosa and Amassoma (2014)	Nigeria	Granger causality test and Error Correction Mechanism	Findings revealed no causality between capital inflows and exchange rate. Findings also indicated FPI to be positively related to exchange rate while FDI was found to be inversely related to the exchange rate in the long run. There was no short relationship between capital inflows and exchange rate.
20	Baghebo and Apere (2014)	Nigeria	Johansen co-integration and ECM techniques	The result indicated that FPI, Market capitalization (MCAP) trade openness(TOP) had a positive long-run relationship with GDP.
21	Oshota and Badejo (2014)	Nigeria	ECM approach	Findings indicated a long-run relationship between remittances and economic growth in Nigeria. Remittance showed a negative relationship with output in the short run, while foreign Aid was observed to have a long and short-run relationship with GDP. FDI was seen to be positively related to GDP only in the short run. Gross fixed capital formation had a positive but insignificant impact on GDP.
22	Maria (2014)	Nigeria	Johansen Co-Integration and VECM	findings indicated a long-run equilibrium relationship between stock market performance and economic growth. Causality test indicated a bi-directional causality between stock market performance and economic growth. Findings from co-integration test indicated that stock market performance exerts a positive impact on economic growth in Nigeria.

23.	Olaleye (2015)	Nigeria	Granger causality test	The result indicated that FDI, Exchange rate, and Trade openness accounts for a large share of variations in GDP. All variables were seen to exhibit a short run relationship except FDI.
24.	Edu and Bassey (2015)	Nigeria	Ordinary Least Square (OLS)	findings revealed that foreign private flow had a positive but insignificant effect on economic growth and domestic investment while foreign private flow had a negative non-significant effect on national savings.
25	Ololade and Ekperiware (2015)	Nigeria	The Ordinary least square (OLS)	The result indicated a significant relationship between FPI and bond yield.
26	Okafor, Chijindu and Chinyere (2015)	Nigeria	The Granger causality test	Findings indicate that FPI and FDI had a positive significant effect on economic growth although the result indicated FPI to be a better contributor.
27	Sani and Hassan (2015)	Nigeria	Generalized method of moments (GMM)	The result indicated that remittances had a positive significant relationship with GDP. The role of financial development was established as it had a positive impact on GDP indicating the role of financial institution. The study identified world GDP growth to be a contributor to GDP growth in Nigeria as less developed economies depends on other economies to grow.
28	Patricia (2015)	Nigeria	Johansen co-integration and Granger causality test	The result indicated a long run relationship between capital market and the growth of the economy.
29	Okafor, Ugochukwu, and Chijindu (2016)	Nigeria	Toda Yamamoto approach	the result revealed a bidirectional causality running from GDP to FDI. A unidirectional causality running from FPI to GDP was also found. Findings also indicated a unidirectional causality from foreign Aid to GDP. The study

				concluded by stating that a positive relationship exists between capital flows and economic growth in Nigeria.
30	Uwubanmwen and Ogiemudia (2016)	Nigeria	ECM and Granger Causality Technique	The finding indicates that FDI has both immediate and time series lag effect on the Nigeria economy in the short run. FDI was observed to have an insignificant negative effect on the Nigeria economy in the long run and the Granger causality test revealed that FDI has a significant positive effect on the growth and development of the Nigeria economy in the short run.
31	Samuel, Idenyi, and Ifeyinwa (2016)	Nigeria	Johansen Cointegration, VECM and Granger Causality test,	findings indicated a long run significant impact of FPI on the growth of the stock market although there was no significant causal relationship between FPI and stock market growth.
32	Ologunwa and Sadibo (2016)	Nigeria	Autoregressive Distributed Lag (ARDL)	The study and result indicated that the capital market was both significant and positive drivers of economic growth in Nigeria and the stock market was seen to affect economic growth through mobilization.
33	Uchenna, Nwanneka, Taiwo, and Emena (2016)	Nigeria	VECM	The result indicated that in the short run, turnover ratio and MCAP had a significant negative effect on GDP. The Granger causality test indicated a unidirectional causality running from MCAP, value traded ratio, Turnover ratio to GDP.
34	Akinbobola and Ibrahim (2017)	Nigeria	Dynamic VAR	Findings revealed that FPI was more stable during democratic periods than the military period. The result also indicates the existence of a long run relationship between FPI and growth in Nigeria. Democracy had a positive and significant effect on economic

				growth in Nigeria.
35	Akinbobola, Ibrahim and Odusanya (2017	Nigeria	Wald test causality	The result indicated a bi-directional causality between FPI and economic growth. it also established the complementary role of domestic savings and interest rate to the growth of the economy.
36	Aham (2017)	Nigeria	Ordinary Least Square (OLS)	findings showed a positive significant relationship between All Share index and foreign portfolio investment. FPI was observed to have a positive relationship with MCAP.
37	Ebun, Olasuyi, Micheal (2018)	Nigeria	Johansen Cointegration test	The result suggested that stock market development is not a strong determinant of economic growth in Nigeria.
Studies from South Africa				
38	Wesso (2001)	South Africa	VAR and ECM	The result indicated a positive relationship with economic growth in the long run, although a negative relationship was observed to exist between capital flows and inflation rates.
39	Fedderke and Romm (2004)	South Africa	Ordinary Least Square (OLS)	FDI was found to be capital intensive and having a positive impact on economic growth.
40	Moolman, C.E, Roos, E.L, Le roux, J.C., and Du toit, C.B. (2006).	South Africa	Cointegration Technique	Findings also showed a positive effect of FDI on growth. Market size, openness, and infrastructural development are issues that South African policymakers need to focus when seeking to attract FDI.
41	Tswamuno, Pardee, and Wunava (2007)	South Africa	Ordinary Least Square (OLS)	The study revealed that FPI prior to liberalization had no positive effect on economic growth, meanwhile stock market turnover after liberalization had a negative effect on economic growth in South

				Africa.
42	Aziakpono (2008)	South Africa	Johansen Cointegration and VECM	The result indicated a positive and statistically significant relationship between FDI, portfolio equity and economic growth. Meanwhile, debt liabilities showed an inverse and significant relationship with economic growth.
43	Gondo (2009)	South Africa		Results indicate that stock market liquidity and credit to the private sector have a complementary and statistically progressive impact on economic growth.
44	Dzangare (2011	South Africa		Findings revealed a positive relationship between private capital flows and GDP growth.
4	Sunde (2012)	South Africa	Granger Causality test.	The result indicated that the financial sector has a strong explanatory power as to the variations of GDP in South Africa. The Granger causality test results revealed a bidirectional causality between variables of the study.
45	Mazenda (2014)	South Africa	VECM	Findings indicated that FDI, exchange rate and debt had a negative impact on growth. while domestic investment had a positive impact on growth in the long run.
Studies From Kenya				
46	Amanda and Morrissey (2004)	Kenya	VECM	The result indicated that import was a strong beneficial element affecting per capita income in Kenya. Net external loans were found to have an inverse relationship with growth in the long run. While private investment had a negative relationship with government investment and import but a positive relationship with foreign Aid.
47	Mwangi (2013)	Kenya	Descriptive	The result indicated a positive nexus

			statistics and multiple regressions	between total savings of citizens and economic growth in Kenya. findings also revealed a positive relationship between total fixed asset investment and economic growth
48	Klio, Soi and Buiguit (2014)	Kenya	OLS	The study indicated a positive and highly significant relationship between workers remittances and GDP. The study identified Gross capital formation to have a positive effect on economic growth while a change of exchange rate regime from fixed to floating had a positive impact on economic growth.
49	George (2014)	Kenya	Descriptive Research Design	The study concluded that the relationship between FDI and GDP is positive but the significance would depend on the type of investment made by the host country.
50	Ocharo, Wawire, Kosimbei and Ng'ang'a (2014)	Kenya	Granger Causality, OLS, and VAR	The empirical result indicated a unidirectional causality running from FDI to economic growth, and from economic growth to cross border interbank borrowing. Long run estimate indicated that FDI was positively and statistically significant.
51	Omonga (2014	Kenya	ARDL bound test and Granger causality	The Granger causality showed a bi-directional causality between financial development and economic growth in Kenya.
52	Aboulezz (2015)	Kenya	Granger causality test and ARDL	The result indicated that international remittances are significant factors influencing the economic growth in Kenya and it was concluded that economic growth in Kenya is largely driven by international remittances.

53	Ojiambo and Ocharo (2016)	Kenya	Granger causality and ARDL technique	The result indicated a unidirectional causality running from economic growth to FDI, labor to Foreign Aid, macroeconomic policy to FDI. Long run estimates showed Aid to be positively and significantly related to GDP, remittances were found to have a negative short-run effect on economic growth.
54	Irungu (2016)	Kenya	Descriptive & Correlation analysis	Results indicated that Diaspora remittance has a positive and significant relationship with GDP, bank interest rate and exchange rate
55	Meah, Onono, and Ocharo (2016	Kenya	OLS	Results indicated that FDI had a statistically positive relationship with economic growth, while institutional quality was found to be a key player in determining economic growth.
56	Abdillahi and Manini (2017)	Kenya	Johansen Co-integration test, VECM, and OLS	The study concluded that capital flows fosters economic growth above any effect on investment rate, but only for economies which have attained a moderate level of financial sector development
Studies from Other Developing Economy				
57	Duasa and Kassim (2009)	Malaysia	Toda Yamamoto causality test	The result indicated that economic performance is the major pull factor in attracting FPI into the country.
58	Faysissa and Nsiah (2010)	Latin American countries		The result indicated that remittances had a positive and significant effect on the growth of Latin American countries where the financial systems are less developed.
59	Sethi (2013)	India	Pairwise Granger causality test	The empirical result indicated a long-run equilibrium relationship restoration between variables of the study. Findings also indicated causation running from economic growth to FDI and Economic growth to FPI

60	Fambon (2013)	Cameroon	ARDL Bound Test	The empirical result revealed that FDI and the domestic capital stock had a significant positive impact on growth both in the short and long run. The labor force was found to be inversely related to GDP both in the long and short run
60	Ali (2014)	Pakistan	Johansen Co-integration and Granger causality	Results revealed a negative impact of capital flow on economic growth in the long run. While a unidirectional causality running from debt service, FDI, Inflation, and Literacy to economic growth in the short run was established by the study. Bidirectional causality was found between remittance and economic growth.
61	Orji, Uche, Ilori (2014)	West African Monetary Zone	Seemingly Unrelated Regression (SUR) model	Empirical findings showed that the impact of capital flows on growth varied among economies chosen for the study.
62	Bayar (2014)	Emerging Asian economies	Pedroni, Kao and Johansen-Fisher panel co-integration tests and vector error correction model.	Findings revealed Gross domestic Savings, gross domestic investment, and FDI to have a positive effect on economic growth in the long run.
63	Nyeadi and Atiga (2014)	Ghana	Granger causality and Johansen cointegration test	Empirical findings indicated a unidirectional causality running from remittance to economic growth in Ghana
64	Bayar, Kaya, and Yidrim (2014)	Turkey	Johansen Cointegration and Granger causality test.	findings indicate that a long run relationship exists between MCAP, the total value of stocks traded, turnover ratio of stock traded. The causality test indicated a unidirectional causality from stock market indicators to economic growth.
65	Wild and Lebdaoui (2014)	Morocco	Granger Causality and VECM	The result indicated stock market development and economic growth had a long run relationship, while a

				unidirectional causality was established running from Morocco All share Index, Traded Volume and stock market index to Real GDP.	
66	Niranjala (2015)	Sri Lanka	Granger causality test	findings revealed that stock market performance played a major role in Sri Lanka for the period under study.	
67	Chorn and Slek (2017)	77 developing countries	Panel Least Square	The result indicated that ODA and FDI had a positive and significant impact on economic growth. the study also observed that the marginal impact of ODA and FDI on economic growth decrease is given the rising level of initial income per head.	
68	Reza, Reza, Wang (2018)	Bangladesh	Johansen Co-integration and VECM	Empirical findings indicate a positive relationship running from FDI to GDP in the long and short run.	

Source: Author's Compilation (2019)

CHAPTER THREE

METHODOLOGY

3.1. Introduction

This chapter addresses the methodology to be employed in the study. It examines the research techniques and procedures, research design, the population of the study, sources of data, theoretical framework, model specifications, apriori expectations, preliminary test, method of data analysis and operationalization of variables.

3.2. Research Design

This study would employ a longitudinal research design. This is necessary as the design examines just how a set of independent variables affect a dependent variable. One plausible advantage of this design hinges on the fact that the variables cannot be manipulated to suit the researcher's interest because it uses historical data existing prior to this study.

3.3. Population and Sample of the Study

The population of the study consist of the fifty-one (51) countries in Sub Saharan Africa (SSA). Three (3) economies (Nigeria, Kenya, South Africa) were selected as sample countries from the population. Sample choice was based on the size of the economy in the different regions (West, East, and South). The choice of sample countries also hinges on the performance of the stock market over the years, since these countries have a large stock market in terms of size of market capitalization within the SSA region. The study spans the period of 1995 to 2017.

3.4. Sources of Data

Secondary data was employed for the study. Data were sourced from various statistical bulletins of various market regulators in Kenya, Nigeria, and South Africa for the period spanning 1995-2017. Data were also be sourced from the World Bank and International Monetary Fund Database. The stock exchange database of the various economies was also useful in sourcing for relevant data.

3.5. Theoretical Framework

As discussed under the theoretical review, one leading theory of economic growth that necessitates the role of foreign capital flow is the Endogenous growth model. The Endogenous growth model propounded by P.M Romer in 1994 serves as a foundation of this study. The endogenous growth model uses the aggregate production function in a Cobb Douglas form, given as

$$Y_{it=} K_{it}^{\alpha},\ L_{it}^{\beta}\ e^{\varepsilon it} \qquad (1)$$

Where

Y_{it} = Economy output measured by GDP at Time t

K_{it} = Level of capital stock

L_{it} = Stock of labor at time t

I = the country

e= base of natural log.

K_{it} can be expressed as a function of external flows and thus we have

$$k_{it} = F(FCF) \quad (2)$$

Decomposing FCF into its various components we have

$$k_{it} = F(FDI, FPI,) \quad (3)$$

Where

FDI = Foreign Direct Investment

FPI = Foreign Portfolio Investment

Substituting Equation 3 into 1 we obtain

$$Y_{it} = A_{it}^{\alpha} + L_{it}^{\emptyset} + FDI^{\beta} + FPI^{\mu} + e^{e_{it}} \quad (4)$$

Where $\alpha, \emptyset, \beta, \mu,$ are constant elasticity coefficients of output relative to A, L, FDI, FPI,

Taking the natural log of equation (4) gives

$$lnY_{it} = \alpha lnK_{it} + \emptyset lnL_{it} + \beta lnFDI_{it} + \mu lnFPI_{it} + \varepsilon_{it} \quad 5$$

3.6 Model Specification

In a bid to test the various hypotheses made in this study, this study specified various models to capture the joint effect of foreign capital flows and stock market performance on economic growth. The model is specified as an Autoregressive Distributed Lag (ARDL) model. Prior to the specification, the functional form of the study is given as;

$$RGDP = f(FDI, FPI, MCAP, TVL, TOP, EXR) \quad (6)$$

Where;

RGDP = Real Gross Domestic Product

FDI = Foreign Direct Investment

FPI = Foreign Portfolio Investment

MCAP = Market Capitalization

TVL = Total Value Traded

TOP= Trade Openness

EXR = Exchange Rate

Following the model suggested by Pesaran, Shin and Smith (1999), the generalized form of a Pooled mean group model is given as:

$$\Delta lnY_{i,t} = \alpha_0 + \sum_{i=0}^{q} \alpha lnX_{i,t-1} + \sum_{i=1}^{p-1} \mu_{i-j} \Delta lnY_{i,t-1} + \sum_{i=0}^{q-1} \beta_{i-j} \Delta X_{i,t-1} + \emptyset ECT_{i,t-1} + \varepsilon_{it} \quad (7)$$

Where

ln= Log Operator

Δ = Difference Operator

Y_t = Vector of Dependent Variable

X_t = Vector of explanatory variables

α_0=Intercept of the model.

Ø = coefficient of Error correction term

i= cross sections N

t = time T

α = Long run coefficient of explanatory variables

μ = short run coefficient of dependent variable

β = Short run coefficient of explanatory variables

p,q = lag length of dependent and independent variables respectively

ε_{it} = Error term.

Adapting equation 7 to our study, we obtain the following equation

$$\Delta lnRGDP_{i,t} = \alpha_0 + \alpha_1 lnFDI_{i,t-1} + \alpha_2 lnFPI_{i,t-1} + \alpha_3 lnMCAP_{i,t-1} + \alpha_4 lnTVL_{i,t-1} + \alpha_5 TOP_{i,t-1} + \alpha_6 EXR_{i,t-1} + \sum_{i=1}^{q} \mu \Delta lnRGDP_{i,t-1} + \sum_{i=0}^{q} \beta_1 \Delta lnFDI_{i,t-1} + \sum_{i=0}^{q} \beta_2 \Delta lnFPI_{i,t-1} + \sum_{i=0}^{q} \beta_3 \Delta lnMCAP_{i,t-1} + \sum_{i=0}^{q} \beta_4 \Delta lnTVL_{i,t-1} + \sum_{i=0}^{q} \beta_5 \Delta TOP_{i,t-1} + \sum_{i=0}^{q} \beta_6 \Delta ExR_{i,t-1} + \emptyset ECT_{i,t-1} + \varepsilon_{it} \quad (8)$$

Where;

α_1- α_6 = Long run coefficients for explanatory variables

β_1- β_7 = Short run coefficients for explanatory variables

ECT= Error correction term

3.7. Aprior Expectations

Equation 8 was modeled to capture the joint effect of foreign capital flow and stock market performance on economic growth is expected to bear the following signs. coefficients $B_1 \ldots B_4$ are expected to be positively signed ($B_1 \ldots B_5 > 0$) since theoretically foreign capital flow and stock market performance are expected to boosts economic growth as suggested in the theoretical literature. Exchange Rate (B_6) is expected to be negatively signed as an appreciation in exchange rate reduces foreign capital flow which could impact the economy negatively, besides an increasing exchange rate could lead to higher cost of importation leading to higher production cost and if not controlled it leads to cost-push inflation. The coefficient of the error correction term is expected to be negatively signed ($\theta < 0$) and statistically significant. A negative coefficient of the Error correction term (ECT) indicates that the variables converge after short run disequilibrium. Mathematically, this can be re-written as

($B_1 \ldots B_5$) > 0. B_6 < 0.

3.8. Preliminary Tests and Descriptive Statistics

The empirical work would begin by subjecting the variables to descriptive statistics in order to determine the normality of the distribution table. The mean, standard Deviation, and Jaque Berra would be given proper attention as they give a quick overview of the normality of variables. If the data are observed to be normally distributed, the data would then be subjected to various preliminary tests to determine the time series characteristics.

3.8.1. Panel Unit Root Test:

Most macroeconomic time series are trended and in most cases non-stationary, thus using a non-stationary time series results in spurious regression leading to incorrect conclusions. Therefore, to determine the stationarity of the series the data would be subjected to a unit root test to determine the presence or absence of unit root. A series is said to have a unit root when it exhibits white noise and possess a mean-reverting behavior, thus the need to difference the series to make it a stationary series (free from the unit root). To achieve this, this study would employ four differing panel unit root test namely; Levin, Lin & Chu's test (LLC), Breitung's t, Im, Pesaran & shin (IPS) and ADF-Fisher chi-square test. This different panel unit root test is built on different assumptions, the Breitung's and LLC tests are based on the assumptions of common unit root process and that the autocorrelation coefficients of the variables being tested are identical across cross-sections. On the contrary the IPS, ADF-Fisher test is based on the assumptions of individual unit root process and that the autocorrelation coefficients of the variables being tested vary across cross-sections. The use of panel unit root test has been credited with the fact that since panel data pools both cross-sections and time series, panel-based unit root improves the test finite sample power as compared to conventional unit root test for time series (Im et .al, 2003) (Levine et al, 2002).

3.8.2 Panel Co-Integration Test

Premise on the results of the unit root test, variables would be subjected to a co-integration test to determine if a long-run relationship exists among them. As a panel study, the Pedroni panel cointegration test (1999) would be employed to test for the presence of co-integration between variables of the study, following the Pedroni's test the Kao test for co-integration (1999) would also be used in other to make the study robust. The Pedroni test of co-integration is adopted as the test allows for heterogeneity in the co-integration vector (Asteriou & Hall,2007). Guvenek and Alptekin (2010) are of the opinion that this test allows not only the dynamic and fixed effect to be different across cross-sections but allows the co-integrated vector to be different among the cross sections.

3.9 Method of Data Analysis

To enable effective estimation of the models presented in this study, the newly established pooled mean group (PMG) estimator for dynamic heterogeneous panels developed by Pesaran, and Shin (1999) would be employed for the study. The PMG is a panel version of the ARDL approach, and the choice of this estimator is necessitated by the small sample size of the study as one of the advantages of the PMG is its ability to give an unbiased estimate given a small sample size as it allows the use of different optimal lags of variables. The PMG is also credited for its ability to use variables with a different order of integration (I(0), I{1}) and still produced an unbiased estimate (Poku, 2016). The PMG approach produces unbiased and efficient estimates as it is able to avoid the problems of serial correlation and endogeneity by choosing an appropriate lag structure for dependent and independent variables using various lag length criteria (Bayar, 2014). Another reason for the choice of this estimator owes to the fact that the

PMG can estimate the long and short-run parameters of the model and can also allow variations in short-run coefficients and error variance across cross-sections although the long run coefficient is constrained to be identical.

3.10. Operationalization of Variables

Real Gross Domestic Product (RGDP): this variable is used as a proxy for economic growth. this is reasonable as the value of GDP is dependent on economic activities in the country. Therefore a growing value of GDP can be taken to mean a growth in economic activities. The natural log of Real Gross Domestic Product (RGDP) would be employed over the Nominal GDP as the former has been adjusted for the effect of inflation. RGDP is the sum of all domestic economic activity less inflation.

Foreign Direct Investment (FDI): this variable is employed as a proxy for foreign capital flow. FDI is a class of transnational investment in an economy owned by residents in another economy and having control or a significant degree of influence on the management of such an enterprise. This study would take the natural log of FDI.

Foreign Portfolio Investment (FPI): FPI is a proxy for foreign capital flow in this study. FPI entails all investment in another economy financial system. It is a passive holding of securities such as foreign stocks, bonds but less than 10%. The natural log of FPI would be used for the study

Market Capitalization (MCAP): this variable is employed to proxy stock market performance. MCAP refers to the total value of shares in a stock market. It is calculated by multiplying the total number of shares outstanding of domestic listed companies by the total matching prices of shares. The natural log of MCAP would be employed for the study.

Total Value Traded (TVL): this is a stock market performance indicator. It is the total number of shares traded both domestic and foreign, multiplied by their respective matching prices. TVL in its natural log form is employed for the study.

Exchange Rate (EXCHR): this is the price of a nation's currency in terms of another currency. This study would use a cross exchange rate with the U.S Dollar. and the official exchange rate would be used. The exchange rate is being used as a pass-through variable (control variable) in this study.

Trade Openness (TOP): is the extent to which a nation allows international trading. It can also be seen as the extent to which all international trade barriers have been relaxed to allow for more trading either in the form of exports or imports between two sovereign nations. This study take's TOP to be the sum of all imports and exports as a share/percentage of GDP.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

In this chapter, we perform the statistical analysis that forms the basis for the empirical evaluation of the study. Various models specified in the previous chapter are estimated and interpreted. This chapter begins by first carrying out preliminary tests to check for the time series properties and characteristics of the data set. This is followed by estimating the long and short run relationship along with heterogeneous short run relationship between foreign capital flow, stock market performance, and economic growth.

4.2 Data Presentation

Economic and financial data spanning 22 years (1995- 2017) were sourced from the World Bank data base, since all data are domiciled in a single currency (US dollar). Balanced Country level data were stacked up to create a panel work file to allow for panel estimation. The data set used for the study is presented in the appendix.

4.3. Data Analysis

4.3.1 Descriptive Statistics

Summary statistics is an important procedure to be carried out before any formal estimation can be made. This study would need to test for the normality of data set to used for the study. The descriptive statistics are employed to determine if the data set forms a normal distribution curve. The standard deviations, skewness, kurtosis and Jarqu Bera give a quick overview of the normality of data set.

Table 4.3.1 Summary Statistics

Variables	Mean	Std.Dev	Skewness	Kurtosis	P-value (Jaque Bera)
RGDP	4.00115	2.303472	-0.115891	2.73032	0.833793
FDI	4.27029	3.663596	1.351573	4.28145	0.272189
FPI	3.23304	1.764792	0.503711	2.79535	0.218905
MCAP	27.71551	38.64666	0.270492	7.69733	0.339043
TVL	5.17405	5.392926	0.993430	2.47093	0.002295
TOP	4.9517	11.11307	-0.501812	3.00163	0.235053
EXR	69.2001	68.76054	1.551684	3.59199	0.034545

Source: Author's Extraction from Eviews 9 Output

Table 4.3.1 shows the summary statistics of the data set. The standard deviation indicates a minute deviation of the variables from the mean. Results indicates that FDI, RGDP, and FPI all oscillates around the mean and are not far apart, on the contrary results indicates that other variables like MCAP, TVL, TOP, EXR substantively deviates from their mean. The skewness which measures the degree of asymmetry of the series indicates that all variables are moderately skewed. The kurtosis which measures the flatness or peakedness of a distribution is also indicated in the summary statistics. The table indicates that RGDP, FPI, and TVL are platykurtic since they have values lower than the sample mean. On the other hand, FDI and MCAP are found to be leptokurtic indicating they have values larger than the sample mean, only TOP and EXR were seen to exhibit normal distribution as they were found to be mesokurtic with a normal value of three (3).

The Jaque Bera which is the difference between the skewness and kurtosis indicates normality of the data set. The probability value of the Jaque Bera indicates that the data set are near normality since they all have p-values greater than 5% level of significance. Only EXR and TVL had a p-value higer than 5% level of significance, thus rejecting the null hypotheses of normality of data set.

4.3.2 Correlation Analysis

Correlation analysis is presented to examine the background behavioral patterns of the data set in the study, the (ordinary) correlation analysis is conducted performed on the data set. The correlation analysis signifies the degree of association between variables of the study. A significant correlation would indicate a linear relationship between the variables of the study. The correlation matrices for the main variables in the study are reported in table 4.3.2 below, the probabilities are in parentheses.

Table 4.3.2 Correlation Matrix

	RGDP	FDI	FPI	MCAP	TVL	TOP	EXR
RGDP	1.0000						
FDI	0.255 (0.03)						
FPI	0.143 (0.04)	0.218 (0.07)					
MCAP	0.047 (0.02)	-0.007 (0.94)	8.31 (0.99)				
TVL	0.303 (0.01)	-0.405 (0.11)	-0.285 (0.01)	0.194 (0.10)			
TOP	0.087 (0.07)	-0.405 (0.00)	-0.029 (0.80)	0.113 (0.35)	0.480 (0.000)		
EXR	0.188 (0.02)	0.345 (0.00)	0.166 (0.17)	-0.091 (0.45)	-0.566 (0.00)	-0.679 (0.00)	

Source: Author's Computation using Eviews 9.0 Statistical package (2019)

The correlation between foreign capital flow indicators is found to be significant at the 5% level while Stock market performance indicators are also found to be significant at the 5% level of significance although the magnitude is reported to be weak. FDI and RGDP reports a correlation coefficient of 0.25, on the other hand FPI reports a correlation coefficient of 0.14 with RGDP. This result suggests that although foreign capital flow is positively correlated with RGDP, such correlation is found to be weak. Conversely, results also indicates that stock market performance indicators are positively

correlated with RGDP although the coefficients are again found to be weak, especially MCAP which reports a correlation value of just 0.04. TOP and EXR are seen to have a positive correlation with RGDP, suggesting that these variables flow in the same direction with RGDP along with the main explanatory variables.

4.3.3 Panel Unit Root Test.

Premise on ascertaining the characteristics of the data set, preliminary test would be done to ascertain the stationary of variables. As highlighted, four (4) panel unit root test would be employed, the Levin, Lin & Chu test (LLC), Breitungs test, Im, Pesaran & Smith (IPS), and the ADF-Fisher chi-square test. These various test are based on differing assumptions (common and individual unit root process), thus the tests would be classified based on their underlying assumptions.

Table 4.3.3a Panel Unit Root Test at Levels

	Test assuming a common unit root process		**Test assuming individual unit root process**	
Variables	**LLC t-stat:**	**Breitung t-stat:**	**IPS w-t-bar stat:**	**ADF-Fisher X^2**
RGDP	H_0: Unit root -0.61456 (0.2694)	H_0: Unit root 1.38210 (0.9165)	H_0: Unit root -0.82578 (0.2049)	H_0: Unit root 1.46483 (0.1491)
FDI	-2.55728 (0.0053)**	-1.55407 (0.0601)*	-2.57798 (0.0050)**	17.3619 (0.0080)**
FPI	-0.94986 (0.1711)	-1.72083 (0.0426)*	-1.55475 (0.0600)	11.1322 (0.0844)
MCAP	0.13803 (0.5549)	3.03524 (0.9988)	0.00130 (0.5005)	8.12720 (0.2289)
TVL	-1.40379 (0.0802)	-0.10946 (0.4564)	-1.12824 (0.1296)	9.68624 (0.1385)
TOP	-0.52042 (0.3014)	-1.82866 (0.0337)*	-0.39665 (0.3458)	5.82397 (0.4432)
EXR	2.44367 (0.9927)	-0.80979 (0.2090)	1.50748 (0.9342)	2.76580 (0.8376)

Source: Author's Extraction from Eviews 9 Output

Note: *and ** signify statistical significance at the 1% and 5% level respectively. Variables are in their natural logarithm

Results from table 4.3.3a shows the stationary results at their levels, results indicates that all variables used for the study are non-stationary at their levels, although FDI was found to be stationary at its level giving both assumptions are held constant. Results also indicates that with the exception of FDI all variables are non-stationary at their levels irrespective of the unit root process adopted, thus premise on these , we would subject the variables to their first difference to bring them to stationarity.

Table 4.3.3b shows the stationarity result at their first difference. Holding both assumptions, all variables were seen to be completely stationary indicating the absence of unit root. Premise on this, variables to be employed for the study can be said to be integrated of the same order and thus we can go further to examine the long run relationship between variables.

Table 4.3.3b Panel unit root at first difference

	Test assuming a common unit root process		**Test assuming individual unit root process**	
Variables	**LLC t-stat:**	**Breitung t-stat:**	**IPS w-t-bar stat:**	**ADF-Fisher X^2**
RGDP	H_0: Unit root -5.95701 (0.0000)**	H_0: Unit root -4.76066 (0.0000)**	H_0: Unit root -5.45052 (0.0000)**	H_0: Unit root 37.1721 (0.0000)**
FDI	-6.33511 (0.0000)**	-2.42607 (0.0076)**	-5.69088 (0.0000)**	38.6232 (0.0000)**
FPI	-5.19779 (0.0000)**	-1.599273 (0.0556)*	-5.34182 (0.0000)**	36.0699 (0.0000)**
MCAP	-1.81278 (0.0349)*	-5.36087 (0.0026)**	2.50633 (0.0061)**	22.5040 (0.0000)**
TVL	-4.70091 (0.0000)**	-2.63608 (0.0059)**	-4.81106 (0.0000)**	32.3723 (0.0000)**
TOP	-4.41374 (0.0000)**	-3.11078 (0.0009)**	-4.84310 (0.0000)**	32.5724 (0.0000)**
EXR	-5.37715 (0.0000)**	-4.38345 (0.0091)**	-2.37094 (0.0051)**	26.6992 (0.0281)*

Source: Author's Extraction from Eviews 9 Output Source

Note: *and ** signify statistical significance at the 1% and 5% level respectively. Variables are in their natural logarithm

4.3.4 Panel Co-integration Analysis

This study employ's two distinct panel based test for co-integration, namely the Pedroni and Kao test for cointegration. The Pedroni test allows for heterogeneity in the co-integration vector, thus allowing the dynamic and fixed effects to be different across cross-sections.

Table 4.3.3 Panel Cointegration test

Pedroni cointegration test **common AR coefficients (within dimensions)*				
	Statistics	**p-value**	**Weighted statistics**	**p-value**
Panel v	-1.981694	0.9762	-2.107819	0.9825
Panel rho	0.889430	0.8131	0.879111	0.8103
Panel PP	-2.981991	0.0014	-2.387079	0.0085**
Panel ADF	-1.176139	0.1198	-0.763169	0.0007**
**individual AR coefficients (between dimensions)*				
Group rho	1.586850	0.9437		
Group PP	-3.866416	0.0001**		
Group ADF	-0.745476	0.0080**		
***Kao residual cointegration test**				
Test Statistics = -2.779771 (0.00271)				

Source: Author's Extraction from Eviews 9 output

Note: *and ** signify statistical significance at the 1% and 5% level respectively. Variables are in their natural logarithm

Table 4.3 presents the two variants of panel co-integration, the presence of cointegration would imply an existence of long run relationships between the variables. The null hypotheses of no co-integration would be tested at the 5% level of significance. The columns labeled within dimensions contain the computed value of the statistics based on estimators that pool the autoregressive coefficient across different countries for the unit root tests on the estimated residuals. The columns labeled between-dimensions contain the computed value of the statistics based on estimators that average individually calculated autoregressive coefficient for each country .When the assumptions of homogenous autoregressive coefficients is upheld, the Pedroni test does not support the

existence of cointegration among variables, however when we assume between dimensions (individual autoregressive coefficient), the results indicates evidence of cointegration as indicated by the statistical significance of both the PP and Group ADF statistics. The Pedroni result is confirmed by the Kao test, which also rejects the null hypotheses of no cointegration at the 1% level of significance.

4.3.5 Panel long and short run Analysis

In this section, the equations specified in the previous chapter are presented and analyzed. The aim is to establish the importance of the equations, relevance of individual coefficients as well as the usefulness of the equations for hypotheses testing. Diagnostic test outcomes (R-squared, adjusted R-squared, D.Watson) would not be reported since the equations are panel based. The Pooled mean group (PMG) estimator would be employed for analyzing the equations specified in previous chapter. The Akaike information Criterion (AIC) was use to select the appropriate lag length, and the ARDL (1, 2, 2, 2, 2, 2, 2) was selected as the final model.

Table 4.3.5 presents the long and short run relationship in tabular form as well as various level of significance (p-value). The result indicates the joint impact of foreign capital flow (FCF) and stock market performance on economic growth in sub-Sahara Africa. Specifically FDI is seen to be positively signed and statistically significant thus indicating the direction of relationship existing between FDI and economic growth. Results indicate that a unit shock in FDI would lead to a significant 0.23% increase/decrease in RGDP in long run. This result implies that the inflow of FDI into these economies during the period of study enhances growth in the long run. On the other hand, foreign portfolio investment (FPI) is found to be positively related to growth in the long run. The positive coefficient of this variable and its corresponding statistical significance gives compelling facts to help establish a positive relationship between these

two variables. Results indicate that a unit shock in FPI would lead to a 31% innovation in RGDP in the long run.

Table 4.3.5 Panel long and short run analysis (Pooled mean group Estimates)

Variables	Short run parameters	P-value	Long-run parameters	P-value
FDI			0.234172	0.0023**
FPI			0.317088	0.0043**
MCAP			0.142775	0.0022**
TVL			0.128504	0.0067**
TOP			0.161783	0.0064**
EXR			0.015678	0.0021**
ECT	-0.26861	0.0027**		
ΔFDI(-1)	0.111817	0.7507		
ΔFPI (-1)	0.578304	0.3687		
ΔMCAP(-1)	-0.02081	0.8437		
ΔTVL(-1)	-0.57328	0.4165		
ΔTOP(-1)	0.034891	0.7924		
ΔEXR(-1)	-0.12336	0.6026		

Source: Author's Extraction from Eviews 9 output

Note: *and ** signify statistical significance at the 1% and 5% level respectively. Variables are in their natural logarithm.

The result from table 4.3.5 also indicates that Stock market indicators are also found to be positively related to economic growth in the long run. Speaking in specific terms, MCAP is found to be positively related to economic growth (RGDP). A unit change in MCAP is seen to account for a 14% change in RGDP in the long run and this relationship is statistically significant at the 1% level of significance. Estimates also indicate that stock market performance as measured by TVL is also positively related with economic growth in the long run. TVL accounts for 13% change in RGDP when it encounters its own shock, this relationship is found to be statistically significant at the 1% level.

Economic openness as measured by TOP is found to be significantly and positively related to economic growth. Openness of an economy to international trade is more likely to foster growth as indicated by the positive coefficient of TOP in the long run. A

unit change in TOP would lead to a 16% change in RGDP in the long run. On the other hand, exchange rate is found to exhibit an unambiguous positive relationship with growth with a coefficient of 0.01 which indicates that fluctuations in EXR can only have a minimal impact on economic growth.

The results for the short run relationship are being presented in table 4.4. Results indicate that all foreign capital flow indicators were found to be positively related to growth, although these relationships were found to be non-statistically significant at the 5% level. Negative non-significant relationship was found to exist in the short run regardless of the positive significant long run relationship established between stock market and economic growth.

The error correction term (ECT) which indicates the speed of adjustment of variables from long run disequilibrium, posses the expected signs. The ECT is both negative and statistically significant at the 1% level. This result indicates that the variables converge after short run deviation and would correct 29% of past deviations in the current year.

4.3.6 Country Specific Short-run Estimates

Having established the long/short run relationship between foreign capital, stock market and economic growth with the use of pooled estimates, this study also attempts to establish the short-run relationship between the dependent and independent variables with by making country specific analysis. Country specifics results presented in Table 4.4.1 indicate the short run relationship existing between foreign capital flow, stock market performance and economic growth with peculiarities to sampled economies. Results from Nigeria indicate that foreign capital flow and stock market indicators have a positive short run relationship with growth. FDI and FPI are found to have a positive and statistically significant impact on economic growth, with a coefficient of 0.79 and 0.74

respectively. This magnitude can be attributed to the role of stock market as its performance could have catapulted the influence of FCF on economic growth. Stock market indicators were also found to have a positive relationship with growth as indicated by the positive values of MCAP (0.173) and TVL (0.536). The error correction term bore the expected signs as it is both negative and statistically significant; thus impling that 29% of past deviations would be corrected every preceding year.

Table 4.3.6 Country Specific Short-run estimates

Cross-sections	ECM	FDI	FPI	MCAP	TVL	TOP	EXR
Nigeria	-0.29 (0.027)*	0.791 (0.0000)**	0.744 (0.020)*	0.173 (0.0000)**	0.5366 (0.0015)**	0.214 (0.0000)**	0.20 (0.0000)
Kenya	-0.15 (0.003)*	-0.35 (0.024)*	-0.52 (0.024)*	0.183 (0.136)	0.44 (0.139)	0.11 (0.0019)**	0.00086 (0.13)
South Africa	-0.10 (0.0001)**	-0.10 (0.0001)**	0.07 (0.04)*	0.05 (0.0000)**	-0.19 (0.002)**	-0.22 (0.0000)**`	-0.57 (0.002)**

Source: Author's computation using Eviews 9 output

Note: *and ** signify statistical significance at the 1% and 5% level respectively. Variables are in their natural logarithm

In Kenya, results indicates that foreign capital flow indicators posses a negative relationship with economic growth, even irrespective of the positive relationship recorded between stock market and growth.. FDI and FPI both had coefficients of -0.35 and -0.52 respectively; indicating that a unit shock in FDI and FPI would lead to a negative innovation in economic growth by 35% and 52%. This negative impact as seen from the results could be as a result of the inability of financial market to accommodate bulk of funds flowing into the economy, although such trend was seen to have been corrected in the long run. Trade openness is found to have a positive impact on growth in the short run, implying that a unit change in TOP would lead to an 11% fluctuation in economic growth in the short run. The error correction term indicates that the variables are able to converge after short run shock from long run equilibrium. The speed of adjustment indicates that 15% of past deviations are corrected in the next year.

In south Africa, results indicates that a variant of foreign capital flow exhibit a negative relationship with economic growth. FDI is seen to be negatively related with growth (-0.10), indicating that a unit shock in FDI would be accompanied with a 10% change in economic growth. on the contrary, FPI is seen to exhibit a positive significant relationship with economic growth, from the result, FCF indicators posses a minute coefficient although statistically significant. Stock market on the other hand is found to be a positive driver of economic growth, while TOP is seen to be negatively related to growth. the negative influence of TOP on growth could be a factor militating the influence of FCF on growth. Exchange rate is found to be a major driver of growth in South Africa, with a coefficient of 0.57. The error correction term is negative and statistically significant at the 1% level. This indicates that the dependent and independent variables converge after short run deviation from long run equilibrium.

4.4 Hypotheses Testing

In this section, the working hypotheses of the study are tested based on the outcomes of the results from the estimated models of the study. These hypotheses are tested using the coefficients estimated in the Pooled mean group equations in table 4.4, with focus on the significance levels and signs of the relevance of coefficient.

Hypothesis One

There is no significant relationship between foreign direct investment and economic growth in sub Sahara Africa.

In testing this hypothesis, we focused on the signs and coefficients of foreign direct investments in the estimation output. The coefficient is positively signed and statistically significant at the 1% level of significance. The null hypothesis is therefore rejected, thus

we can conclude that FDI has a significant positive relationship with growth in sub Sahara Africa.

Hypothesis Two

There is no significant relationship between foreign portfolio investment and economic growth in sub Sahara Africa

The results of the estimated model in table 4.4 gives the test conditions of this hypothesis. The result indicates that FPI is equally positively signed and statistically significant at the 1% level. Based on this result, the null hypothesis is rejected and the study can conclude that FPI is significantly and positively related to economic growth in sub Sahara Africa.

Hypothesis Three

There exist no significant relationship between market capitalization and economic growth in sub Sahara Africa.

Results from regression estimates clearly establish a positive relationship between MCAP and economic growth as measured by RGDP. This relationship was found to be statistically significant at the 1% level. Premise on this we can therefore reject the null hypothesis and conclude that the relationship between MCAP and growth is positive and statically significant.

Hypothesis Four

The total value traded in stocks has no significant relationship with economic growth in sub Sahara Africa.

Empirical results from table 4.4 established a positive relationship between TVL and economic growth in sub Sahara Africa. *The* null hypothesis can thus be rejected, as the relationship was found to be statistically significant at the 1% level of significance. Thus we can conclude that Total value traded in stocks has a positive and significant relationship with economic growth in sub Sahara Africa.

Hypothesis Five

Trade openness has no significant relationship with economic growth in sub Sahara Africa.

Empirical analysis presented in table 4.4 shows trade openness to be positively related to growth in sub Sahara Africa. The test result indicates that the relationship was statistically significant at the 1% level of significance. These results engineered this study to reject the null hypothesis and conclude that the relationship between trade openness and economic is indeed statistically significant.

4.5 Discussion of Findings and Policy Implications.

Relationships established from empirical analysis are far reaching and have important policy implications. Sampled economies from sub Sahara Africa all have variants of foreign capital flow and a well functioning stock market. Using our PMG estimator, FDI significantly impacted on economic growth of selected economies in the sub Sahara region of Africa. The positive and significant relationship gotten from the analysis is an indication that FDI inflows into these countries within the period of study are growth enhancing. The implications of this finding is that selected economies used for the study can benefit more if only they can continue to foster the inflow of FDI so they can tap from positive externalities emanating from FDI. This result is found to be in in line with

apriori and studies carried out by Poku (2016), Wesso (2011), George(2014) and Uwubanmwen and Ogiemudia (2016). These studies summit a positive relationship between FDI and economic growth in their various studies.

The Short-run relationships between variables with peculiarity to our sampled economies were also established. Although FDI was found to be non-statistically significant in the short run when samples were pooled, it was found to be statistically significant at the country specific level. FDI was found to be positive in the pooled estimates; on the contrary, country specific results indicate FDI to be negatively signed in Kenya and South Africa while still positive in Nigeria. This implies that offshoot of FDI into these two economies (Kenya and South Africa) could spell negative growth, although it is seen to reinforce itself over the long run.

Secondly, this study empirically established a positive and significant long run relationship between FPI and economic growth in the Sub Sahara Africa. This implies that financial system in general and stock market in particular of these economies under study are well suited for foreign inflow of foreign investment. The inflow of FPI into the stock market creates a multiplier effect in the market before transmitting such effect to the economy at large. This results is in line with apriori and follows the studies of Dzangare (2011), Okafor, Chijindu and Chinyere (2015) and Akinbobola and Ibrahim (2017). These studies established a positive relationship between FPI and economic growth.

On the other hand, country specific estimates indicate that FPI inflow is positively signed in Nigeria and South Africa, although Kenya records an inverse relationship with growth. This could imply that in Kenya, investment in the form of foreign portfolio truncates economic growth rather than reinforce it. It can be taken that Kenyans financial market

although still undergoing growth is unable to absorb the volume of funds coming in as foreign portfolio investment and thus could creates economic vices like inflation and hike in exchange rate. The ambiguous coefficient of FPI in Nigeria indicates that FPI is a major driver of growth in this region. The contribution of FPI to growth in South Africa is unambiguous, as it contributes only a small fraction to economic growth, this could imply that South Africa is not receiving FPI as it should. South Africa records a negative relationship between TOP and economic growth, this could imply that the openness of South Africa to international trade exposes the economy to international vices i.e. completion with domestic market, increases import which might lead to an offset of balance of payment.

Lastly, country specific result regarding the short-run relationship between stock market performance and growth was established in this study. Stock market indicators were found to be drivers of growth in the long run. This relationship is far reaching as the growth of any economy cannot be independent of its financial system. Thus the outcome of this study reinforces previous knowledge of the role of stock market on economic performance. The outcome of this study is in line with apriori and reinforces past studies that summits a positive nexus between stock market performance and growth (Osamwonyi &Kasimu, (2013); Patricia, (2015); Maria, (2014); Riman, Esso&Eyo, (2008); Ologuwa&Sadibo, (2016) and Wild &Lebdaoui, (2014).

Results from the heterogeneous short-run estimates indicate that stock market indicators were all positive and statistically significant at the 1% level. Results from Nigeria and Kenya indicate that stock market had a significant influence on growth both in terms of magnitude and overall significance. Results also indicates that although south Africa stock market has be defined to be highly developed and capitalized, its contribution to

economic growth is lesser than expected. This could imply that appropriate policies are not being executed to harness the growth enhancing ability of the market.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter considers the summary of the entire work, draws the final conclusion, makes recommendations, presents contributions to knowledge and suggests areas for further research.

5.2 Summary of Findings

This study examines the joint effect of foreign capital flows and stock market performance on economic growth in selected sub Saharan African economies. With persistent shortages of funds faced by SSA economies, the need to bridge the gap between desired investment and savings becomes urgent. In recent times, economies have looked outside their own borders to seek capital to bridge existing disparity between savings and investment. Hence, this study set out to investigate whether foreign capital flow (FPI, FDI) and stock market performance jointly enhance economic growth in SSA regions. A panel data structure was used in the empirical analysis with data on three (3) economies spanning 1995-2017 and to achieve this, a panel framework was devised for the analysis and the pooled mean group estimator was employed in estimating the models specified for the study. Estimates obtained were found to be robust to both specifications and data manipulations. From empirical analysis, interpretation and test of hypotheses, a general outcome of the study indicates that foreign capital flows and stock market performance has had a significant impact on economic growth in SSA economies. More specifically the following findings were made from the study

1. Foreign direct investment has a significant long-run impact on economic performance of economies in the SSA region but insignificant short run relationship was also recorded for this regions. Country specific result indicated that FDI enhances growth in Nigeria but hampers growth in Kenya and South Africa in the short run.
2. Foreign portfolio investment has a positive significant long-run relationship with growth in the SSA region. Pooled estimates established a non-significant relationship in the short run. On the other hand, country specific analysis established a significant positive short run relationship with growth in Nigeria and South Africa, while an inverse relationship was recorded in Kenya.
3. Indicators of stock market performance was found to be positively and significantly related to growth in the long run and negatively signed in the short run. In SSA region, heterogeneous estimates established a significant positive relationship between stock market and economic growth in Kenya, Nigeria and South Africa, although the magnitude was found to be lesser in South Africa.
4. Finally, trade openness played a critical role in the economies of study, Trade openess had a significant positive relationship with growth in the long run in SSA regions

5.3 Conclusion

Much effort has been made to establish relationship between foreign capital, stock market performance and economic growth. In order to achieve the objective of this study, three (3) economies were chosen and analyzed on panel bases and robustness checked for by conducting a country specific analysis on data obtained from individual country. The PMG technique was used for data analysis for a period spanning 22 years (1995-2017). Premise on the findings of this study, we conclude that foreign capital flows (FDI,

FPI) and stock market performance (MCAP, TVL) jointly enhance economic growth (RGDP) in SSA economies.

Many developed and developing economies have taken key advantage of free capital that exist outside economic borders, therefore these economies must develop their financial system so as to enable them accommodate the bulk of funds coming in to the economy through the financial system. Foreign capital can help bridge the gap between desired investment and savings, thus regulatory authorities must put in place different policies to encourage the flow of foreign capital to their economy as well as develop their stock market. It is against this, that foreign capital flow and stock market are expected to enhance growth thorough their joint role in the accumulation and redistribution of capital.

5.4 Recommendations

The results from empirical analysis provides strong background and implications so as to allow for certain policy and practical recommendations for economist and policy makers

1. Policy makers should make appropriate policies aimed at attracting foreign direct investment and portfolio investment, as this form of capital has been seen to bridge the gap between investment and levels of savings.
2. Financial market in general and the stock market in particular must be adequately capitalized and deepened so as to accommodate bulk of funds streaming in from abroad.
3. Trade openness should be given adequate attention so that foreign capital can flow freely into these regions, but at the same time kept under control to prevent the undue competition which might result in a crowding out effect.

5.5 Contributions to Knowledge

1. The study modeled economic growth to be a function of both foreign capital flow and stock market performance. This improves on previous studies were only foreign capital or stock markets are separately modeled to be growth drivers.
2. The study builds on existing empirical studies by employing a robust and panel based ARDL (PMG) technique which is not commonly used in literature. This methods improves on previous studies as it allows for cross country comparison and enhance economic interpretations
3. The study informs policy makers as to the role of foreign capital and stock market in elevating their economic growth.
4. Finally, this study updates the time scope of previous studies that exist in this area of research.

5.6 Areas for further Research

1. There is the need to include other forms of foreign capital (remittances and official aid), as this study only employs only two variants of foreign capital.
2. The sample scope should be expanded with the aim of increasing the sample finite power.
3. Further studies could check on the direction of causality between these variables using the Granger causality test or Toda Yamamoto test for causality.

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Appendix I

Dataset (1995-2007)

Year	Country	LNRGDP	LNFDI	LNFPI	LNMCAP	LNTVL	TOP	EXR
1995	Nigeria	24.50887	20.79955	17.05746	22.77446	18.24131	39.52838	21.89526
1996	Nigeria	24.65658	21.18917	17.80613	23.26601	19.56688	40.25773	21.88443
1997	Nigeria	24.72069	21.15469	16.82717	23.25371	20.02818	51.46101	21.88605
1998	Nigeria	24.72337	20.77332	14.67549	23.05751	20.22818	39.27861	21.886
1999	Nigeria	24.8071	20.72817	16.82717	21.80153	18.53935	34.45783	92.3381
2000	Nigeria	24.96386	20.85444	20.00572	21.58782	18.53935	48.9956	101.6973
2001	Nigeria	25.02774	20.89774	17.80613	25.16468	18.94659	49.6805	111.2313
2002	Nigeria	25.2812	21.35138	20.00572	21.58782	18.94659	40.03517	120.5782
2003	Nigeria	25.37639	21.41909	17.80613	24.86268	21.24243	49.33496	129.2224
2004	Nigeria	25.63875	21.35137	21.94775	23.48744	21.24243	31.89587	132.888
2005	Nigeria	25.89451	22.3292	20.00572	23.82534	21.39303	33.05946	131.2743
2006	Nigeria	26.18754	22.30314	24.86268	24.21462	22.00353	42.56657	128.6517
2007	Nigeria	26.34231	22.52101	22.86975	25.16468	23.57743	39.33693	125.8081
2008	Nigeria	26.54345	22.82685	21.94775	24.59576	23.53979	40.79684	118.546
2009	Nigeria	26.39961	22.86975	19.65979	24.19596	22.22573	36.05871	148.9017
2010	Nigeria	26.61866	22.51939	15.80299	24.64616	22.35352	43.32076	150.298
2011	Nigeria	26.74024	22.90268	19.76387	24.38756	22.07702	53.27796	153.8616
2012	Nigeria	26.85313	22.67912	17.02345	24.75228	22.1325	44.53237	157.4994
2013	Nigeria	26.96737	22.43938	15.80299	25.11289	22.55231	31.04886	157.3112
2014	Nigeria	27.06627	22.26045	18.00985	24.86268	22.35894	30.88519	158.5526
2015	Nigeria	26.92698	21.86663	17.07726	24.63477	22.13056	21.44693	192.4403
2016	Nigeria	26.72629	22.21507	18.00985	24.11752	21.13514	20.72252	253.492
2017	Nigeria	26.65218	21.97524	17.45645	24.34005	21.51449	26.3476	305.7901
1995	Kenya	22.92562	17.56004	15.80299	24.17391	17.90735	71.74574	51.42983
1996	Kenya	23.21199	18.50385	17.72959	21.42513	18.08072	57.31211	57.11487
1997	Kenya	23.29708	17.94421	18.30852	21.31051	18.39526	54.05712	58.73184
1998	Kenya	23.36901	17.09447	17.45645	21.31826	18.12227	48.89724	60.3667
1999	Kenya	23.28018	17.76586	16.867	21.45975	17.69707	48.19227	70.32622

2000	Kenya	23.26529	18.52418	16.48223	21.45975	17.44782	53.30904	76.17554
2001	Kenya	23.28714	15.48371	14.16529	20.95071	17.48674	55.94684	78.56319
2002	Kenya	23.29952	17.13399	15.37694	20.76757	17.43665	55.17267	78.74914
2003	Kenya	23.42493	18.21903	17.44477	21.08184	19.11383	54.13227	75.93557
2004	Kenya	23.5018	17.64554	18.00985	22.15424	19.46392	59.477	79.17388
2005	Kenya	23.65381	16.87006	17.23204	22.08192	20.03832	64.47887	75.55411
2006	Kenya	23.97463	17.74094	16.84208	22.57706	21.03389	55.23649	72.10084
2007	Kenya	24.18769	20.40724	17.02345	23.15495	20.84351	53.89479	67.31764
2008	Kenya	24.30387	18.37553	17.07726	23.31438	20.42513	57.5786	69.17532
2009	Kenya	24.33476	18.57132	16.85457	23.10781	19.10549	50.86364	77.35201
2010	Kenya	24.41215	18.99766	17.18138	23.11814	20.492	54.22686	79.23315
2011	Kenya	24.45983	21.09516	14.35341	23.39471	20.63689	60.44867	88.81077
2012	Kenya	24.64351	21.04548	20.46846	23.04591	20.73133	57.76508	84.5296
2013	Kenya	24.73236	20.83554	14.35341	22.15424	21.31366	53.13301	86.12288
2014	Kenya	24.84146	20.52596	20.46846	22.08192	20.73411	51.2983	87.92216
2015	Kenya	24.88227	20.24479	18.85928	22.57706	20.34208	44.21132	98.17845
2016	Kenya	24.98419	19.79023	19.76387	23.15495	20.5197	36.75138	101.5044
2017	Kenya	25.09604	20.32501	20.46846	21.31826	20.5197	37.25011	103.4109
1995	S.Africa	25.76966	20.94515	20.46846	26.34869	23.49259	43.61094	3.627085
1996	S.Africa	25.71783	20.5204	21.3462	26.21043	24.00593	46.66733	4.299349
1997	S.Africa	25.751	22.06104	19.84914	26.16152	24.46258	46.84526	4.607962
1998	S.Africa	25.64888	20.12604	21.3462	25.85041	24.71747	48.89662	5.528284
1999	S.Africa	25.64056	21.13095	21.13095	26.28294	25.01124	46.86189	6.109484
2000	S.Africa	25.63858	20.6916	21.3462	26.04286	24.9789	51.43777	6.939828
2001	S.Africa	25.52401	22.70707	22.83973	25.7169	24.28891	54.80163	8.609181
2002	S.Africa	25.47468	21.11518	19.84914	25.92726	24.58791	59.76464	10.54075
2003	S.Africa	25.88952	20.47882	23.38371	26.28682	24.61628	51.40183	7.564749
2004	S.Africa	26.15671	20.36862	20.36862	26.81575	25.15132	51.07803	6.459693
2005	S.Africa	26.27495	22.59846	20.25053	27.03193	25.43561	53.14912	6.359328

2006	S.Africa	26.32774	20.25053	22.75463	27.29026	25.88082	60.27726	6.771549
2007	S.Africa	26.4251	22.60833	22.14379	27.4425	26.27516	63.68309	7.045365
2008	S.Africa	26.38195	23.01428	23.38371	26.90266	26.03468	72.86539	8.261223
2009	S.Africa	26.41341	22.75463	19.76387	27.40666	26.10553	55.41826	8.473674
2010	S.Africa	26.65112	22.02978	20.46846	27.55307	26.34809	55.98899	7.321222
2011	S.Africa	26.75496	22.14379	21.11518	27.39408	26.14305	60.11263	7.261132
2012	S.Africa	26.70551	22.25496	22.25496	27.53421	26.14762	60.8997	8.209969
2013	S.Africa	26.62766	22.83136	22.47968	27.57213	26.17108	64.24176	9.655056
2014	S.Africa	26.58302	22.47968	21.51866	27.56267	26.22736	64.4345	10.85266
2015	S.Africa	26.48386	21.14273	22.60833	27.32442	26.17854	61.60015	12.75893
2016	S.Africa	26.41277	21.51866	27.32442	27.58112	26.72081	60.79053	14.70961
2017	S.Africa	26.57797	21.03949	22.14379	27.83883	26.73873	58.17963	13.33378

APPENDIX II

Descriptive Statistics

	RGDP	FDI	FPI	MCAP	TVL	TOP	EXR
Mean	4.001159	4.270290	3.233043	27.71551	5.174058	49.51758	69.20014
Median	4.130000	3.300000	2.900000	22.72000	2.220000	51.40183	56.10000
Maximum	9.570000	20.40000	8.200000	332.4000	18.30000	72.86539	364.1000
Minimum	-1.530000	-2.100000	-0.420000	2.000000	0.040000	20.72252	3.630000
Std. Dev.	2.303472	3.663596	1.764792	38.64664	5.392926	11.11307	68.76054
Skewness	-0.115891	1.351573	0.503711	0.27049	0.993430	-0.501812	1.551684
Kurtosis	2.730323	4.28145	2.795355	7.69733	2.470930	3.001632	3.591990
Jarque-Bera	0.363540	26.0248	3.038236	92.31009	12.15414	2.895888	64.78320
Probability	0.833793	0.272189	0.218905	0.339043	0.002295	0.235053	0.034543
Sum	276.0800	294.6500	223.0800	1912.370	357.0100	3416.713	4774.810
Sum Sq. Dev.	360.8067	912.6914	211.7855	101562.3	1977.688	8398.023	321504.8
Observations	69	69	69	69	69	69	69

Appendix III

Correlation Matrix

Covariance Analysis: Ordinary
Date: 07/10/19 Time: 23:08
Sample: 1995 2017
Included observations: 69

Correlation Probability	RGDP	FDI	FPI	MCAP	TVL	TOP	EXR
RGDP	1.000000 -----						
FDI	0.255225 0.0343	1.000000 -----					
FPI	0.143148 0.0406	0.218614 0.0711	1.000000 -----				
MCAP	0.047271 0.0297	-0.007912 0.9486	8.31E-05 0.9995	1.000000 -----			
TVL	0.303767 0.0112	-0.192800 0.1125	-0.285982 0.0172	0.194450 0.1094	1.000000 -----		
TOP	0.087641 0.0739	-0.405690 0.0005	-0.029700 0.8086	0.113251 0.3542	0.480467 0.0000	1.000000 -----	
EXR	0.188883 0.0201	0.345923 0.0036	0.166994 0.1702	-0.091617 0.4540	-0.566183 0.0000	-0.679560 0.0000	1.000000 -----

APPENDIX IV

Summary Of Panel Unit Root

PANEL STATIONARITY TEST @RGDP

Panel unit root test: Summary
Series: RGDP
Date: 06/18/19 Time: 14:05
Sample: 1995 2017
Exogenous variables: Individual effects
User-specified lags: 1
Newey-West automatic bandwidth selection and Bartlett kernel
Balanced observations for each test

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-0.61456	0.2694	3	63
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-0.82578	0.2045	3	63
ADF - Fisher Chi-square	9.46483	0.1491	3	63
PP - Fisher Chi-square	14.8572	0.0214	3	66

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Series: D(RGDP)
Date: 06/18/19 Time: 14:12
Sample: 1995 2017
Exogenous variables: Individual effects
User-specified lags: 1
Newey-West automatic bandwidth selection and Bartlett kernel
Balanced observations for each test

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-5.95701	0.0000	3	60
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-5.45052	0.0000	3	60
ADF - Fisher Chi-square	37.1721	0.0000	3	60
PP - Fisher Chi-square	125.074	0.0000	3	63

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Null Hypothesis: Unit root (common unit root process)
Series: RGDP
Date: 06/18/19 Time: 21:33

Sample: 1995 2017
Exogenous variables: Individual effects, individual linear trends
User-specified lags: 1
Total (balanced) observations: 60
Cross-sections included: 3

Method	Statistic	Prob.**
Breitung t-stat	1.38210	0.9165

** Probabilities are computed assuming asympotic normality

Null Hypothesis: Unit root (common unit root process)
Series: D(RGDP)
Date: 06/18/19 Time: 21:34
Sample: 1995 2017
Exogenous variables: Individual effects, individual linear trends
User-specified lags: 1
Total (balanced) observations: 57
Cross-sections included: 3

Method	Statistic	Prob.**
Breitung t-stat	-4.76066	0.0000

** Probabilities are computed assuming asympotic normality

PANEL STATIONARITY TEST @ FDI

Panel unit root test: Summary
Series: FDI
Date: 06/18/19 Time: 14:06
Sample: 1995 2017
Exogenous variables: Individual effects
User-specified lags: 1
Newey-West automatic bandwidth selection and Bartlett kernel
Balanced observations for each test

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-2.55726	0.0053	3	63
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-2.57798	0.0050	3	63
ADF - Fisher Chi-square	17.3619	0.0080	3	63
PP - Fisher Chi-square	23.8762	0.0006	3	66

** Probabilities for Fisher tests are computed using an asymptotic Chi
-square distribution. All other tests assume asymptotic normality.

Panel unit root test: Summary
Series: D(FDI)
Date: 06/18/19 Time: 14:12
Sample: 1995 2017

Exogenous variables: Individual effects
User-specified lags: 1
Newey-West automatic bandwidth selection and Bartlett kernel
Balanced observations for each test

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-6.33511	0.0000	3	60
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-5.69088	0.0000	3	60
ADF - Fisher Chi-square	38.6232	0.0000	3	60
PP - Fisher Chi-square	285.860	0.0000	3	63

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Null Hypothesis: Unit root (common unit root process)
Series: FDI
Date: 06/18/19 Time: 21:34
Sample: 1995 2017
Exogenous variables: Individual effects, individual linear trends
User-specified lags: 1
Total (balanced) observations: 60
Cross-sections included: 3

Method	Statistic	Prob.**
Breitung t-stat	-1.55407	0.0601

** Probabilities are computed assuming asympotic normality

Null Hypothesis: Unit root (common unit root process)
Series: D(FDI)
Date: 06/18/19 Time: 21:35
Sample: 1995 2017
Exogenous variables: Individual effects, individual linear trends
User-specified lags: 1
Total (balanced) observations: 57
Cross-sections included: 3

Method	Statistic	Prob.**
Breitung t-stat	-2.42607	0.0076

** Probabilities are computed assuming asympotic normality

STATIONARITY RESULTS OF FPI @ LEVELS and FIRST DIFFERENCE

Panel unit root test: Summary
Series: FPI
Date: 06/18/19 Time: 14:07
Sample: 1995 2017
Exogenous variables: Individual effects
User-specified lags: 1
Newey-West automatic bandwidth selection and Bartlett kernel
Balanced observations for each test

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-0.94986	0.1711	3	63
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-1.55475	0.0600	3	63
ADF - Fisher Chi-square	11.1322	0.0844	3	63
PP - Fisher Chi-square	16.3967	0.0118	3	66

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Panel unit root test: Summary
Series: D(FPI)
Date: 06/18/19 Time: 14:13
Sample: 1995 2017
Exogenous variables: Individual effects
User-specified lags: 1
Newey-West automatic bandwidth selection and Bartlett kernel
Balanced observations for each test

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-5.19779	0.0000	3	60
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-5.34182	0.0000	3	60
ADF - Fisher Chi-square	36.0699	0.0000	3	60
PP - Fisher Chi-square	55.5817	0.0000	3	63

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Null Hypothesis: Unit root (common unit root process)
Series: FPI
Date: 06/18/19 Time: 21:35
Sample: 1995 2017
Exogenous variables: Individual effects, individual linear trends
User-specified lags: 1
Total (balanced) observations: 60
Cross-sections included: 3

Method	Statistic	Prob.**
Breitung t-stat	-1.72083	0.0426

** Probabilities are computed assuming asympotic normality

Series: D(FPI)

Date: 06/18/19 Time: 21:36
Sample: 1995 2017
Exogenous variables: Individual effects, individual linear trends
User-specified lags: 1
Total (balanced) observations: 57
Cross-sections included: 3

Method	Statistic	Prob.**
Breitung t-stat	-1.59273	0.0556

** Probabilities are computed assuming asympotic normality

STATIONARITY RESULTS OF MCAP @ LEVELS and FIRST DIFFERENCE

Panel unit root test: Summary
Series: MCAP
Date: 06/18/19 Time: 14:08
Sample: 1995 2017
Exogenous variables: Individual effects
User-specified lags: 1
Newey-West automatic bandwidth selection and Bartlett kernel
Balanced observations for each test

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	0.13803	0.5549	3	63
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	0.00130	0.5005	3	63
ADF - Fisher Chi-square	8.12720	0.2289	3	63
PP - Fisher Chi-square	11.4803	0.0746	3	66

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Panel unit root test: Summary
Series: D(MCAP)
Date: 06/18/19 Time: 14:13
Sample: 1995 2017
Exogenous variables: Individual effects
User-specified lags: 1
Newey-West automatic bandwidth selection and Bartlett kernel
Balanced observations for each test

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-1.81278	0.0349	3	60
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-2.50633	0.0061	3	60
ADF - Fisher Chi-square	22.5040	0.0010	3	60
PP - Fisher Chi-square	51.7086	0.0000	3	63

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Null Hypothesis: Unit root (common unit root process)
Series: MCAP
Date: 06/18/19 Time: 21:36
Sample: 1995 2017
Exogenous variables: Individual effects, individual linear trends
User-specified lags: 1
Total (balanced) observations: 60
Cross-sections included: 3

Method	Statistic	Prob.**
Breitung t-stat	3.03524	0.9988

** Probabilities are computed assuming asympotic normality

Null Hypothesis: Unit root (common unit root process)
Series: D(MCAP)
Date: 06/18/19 Time: 21:37
Sample: 1995 2017
Exogenous variables: Individual effects, individual linear trends
User-specified lags: 1
Total (balanced) observations: 57
Cross-sections included: 3

Method	Statistic	Prob.**
Breitung t-stat	-5.36087	0.0026

** Probabilities are computed assuming asympotic normality

STATIONARITY RESULTS FOR TVL @ LEVELS AND FIRST DIFFERENCE

Panel unit root test: Summary
Series: TVL
Date: 06/18/19 Time: 14:08
Sample: 1995 2017
Exogenous variables: Individual effects
User-specified lags: 1
Newey-West automatic bandwidth selection and Bartlett kernel
Balanced observations for each test

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-1.40379	0.0802	3	63
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-1.12824	0.1296	3	63
ADF - Fisher Chi-square	9.68627	0.1385	3	63
PP - Fisher Chi-square	15.3495	0.0177	3	66

** Probabilities for Fisher tests are computed using an asymptotic Chi
-square distribution. All other tests assume asymptotic normality.

Panel unit root test: Summary
Series: D(TVL)
Date: 06/18/19 Time: 14:14
Sample: 1995 2017
Exogenous variables: Individual effects

User-specified lags: 1
Newey-West automatic bandwidth selection and Bartlett kernel
Balanced observations for each test

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-4.70091	0.0000	3	60
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-4.81106	0.0000	3	60
ADF - Fisher Chi-square	32.3723	0.0000	3	60
PP - Fisher Chi-square	288.635	0.0000	3	63

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Null Hypothesis: Unit root (common unit root process)
Series: TVL
Date: 06/18/19 Time: 21:38
Sample: 1995 2017
Exogenous variables: Individual effects, individual linear trends
User-specified lags: 1
Total (balanced) observations: 60
Cross-sections included: 3

Method	Statistic	Prob.**
Breitung t-stat	-0.10946	0.4564

** Probabilities are computed assuming asympotic normality

Null Hypothesis: Unit root (common unit root process)
Series: D(TVL)
Date: 06/18/19 Time: 21:38
Sample: 1995 2017
Exogenous variables: Individual effects, individual linear trends
User-specified lags: 1
Total (balanced) observations: 57
Cross-sections included: 3

Method	Statistic	Prob.**
Breitung t-stat	-2.63608	0.0059

** Probabilities are computed assuming asympotic normality

STATIONARITY RESULTS FOR TOP @ LEVELS AND FIRST DIFFERENCE

Panel unit root test: Summary

Series: TOP
Date: 06/18/19 Time: 14:09
Sample: 1995 2017
Exogenous variables: Individual effects
User-specified lags: 1
Newey-West automatic bandwidth selection and Bartlett kernel
Balanced observations for each test

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-0.52042	0.3014	3	63
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-0.39665	0.3458	3	63
ADF - Fisher Chi-square	5.82397	0.4432	3	63
PP - Fisher Chi-square	10.0937	0.1208	3	66

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Panel unit root test: Summary
Series: D(TOP)
Date: 06/18/19 Time: 14:14
Sample: 1995 2017
Exogenous variables: Individual effects
User-specified lags: 1
Newey-West automatic bandwidth selection and Bartlett kernel
Balanced observations for each test

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-4.41374	0.0000	3	60
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-4.84310	0.0000	3	60
ADF - Fisher Chi-square	32.5724	0.0000	3	60
PP - Fisher Chi-square	63.8677	0.0000	3	63

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Null Hypothesis: Unit root (common unit root process)
Series: TOP
Date: 06/18/19 Time: 21:39
Sample: 1995 2017
Exogenous variables: Individual effects, individual linear trends
User-specified lags: 1
Total (balanced) observations: 60
Cross-sections included: 3

Method	Statistic	Prob.**
Breitung t-stat	-1.82866	0.0337

** Probabilities are computed assuming asympotic normality

Null Hypothesis: Unit root (common unit root process)
Series: D(TOP)

Date: 06/18/19 Time: 21:39
Sample: 1995 2017
Exogenous variables: Individual effects, individual linear trends
User-specified lags: 1
Total (balanced) observations: 57
Cross-sections included: 3

Method	Statistic	Prob.**
Breitung t-stat	-3.11078	0.0009

** Probabilities are computed assuming asympotic normality

STATIONARITY RESULTS FOR EXR @ LEVELS AND FIRST DIFFERENCE

Panel unit root test: Summary
Series: EXR
Date: 06/18/19 Time: 14:11
Sample: 1995 2017
Exogenous variables: Individual effects
User-specified lags: 1
Newey-West automatic bandwidth selection and Bartlett kernel
Balanced observations for each test

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	2.44367	0.9927	3	63
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	1.50748	0.9342	3	63
ADF - Fisher Chi-square	2.76580	0.8376	3	63
PP - Fisher Chi-square	2.77286	0.8368	3	66

** Probabilities for Fisher tests are computed using an asymptotic Chi -square distribution. All other tests assume asymptotic normality.

Panel unit root test: Summary
Series: D(EXR)
Date: 06/18/19 Time: 14:16
Sample: 1995 2017
Exogenous variables: Individual effects
User-specified lags: 1
Newey-West automatic bandwidth selection and Bartlett kernel
Balanced observations for each test

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	2.37715	0.9913	3	60
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-1.37094	0.0852	3	60
ADF - Fisher Chi-square	12.6992	0.0481	3	60
PP - Fisher Chi-square	28.8892	0.0001	3	63

** Probabilities for Fisher tests are computed using an asymptotic Chi
-square distribution. All other tests assume asymptotic normality.

Null Hypothesis: Unit root (common unit root process)
Series: EXR
Date: 06/18/19 Time: 21:40
Sample: 1995 2017
Exogenous variables: Individual effects, individual linear trends
User-specified lags: 1
Total (balanced) observations: 60
Cross-sections included: 3

Method	Statistic	Prob.**
Breitung t-stat	-0.80979	0.2090

** Probabilities are computed assuming asympotic normality

Null Hypothesis: Unit root (common unit root process)
Series: D(EXR)
Date: 06/18/19 Time: 21:40
Sample: 1995 2017
Exogenous variables: Individual effects, individual linear trends
User-specified lags: 1
Total (balanced) observations: 57
Cross-sections included: 3

Method	Statistic	Prob.**
Breitung t-stat	-4.38345	0.0091

** Probabilities are computed assuming asympotic normality

APPENDIX V

PEDRONI PANEL COINTEGRATION TEST RESULTS

Pedroni Residual Cointegration Test
Series: RGDP FDI FPI MCAP TVL TOP EXR
Date: 06/18/19 Time: 14:17
Sample: 1995 2017
Included observations: 69
Cross-sections included: 3
Null Hypothesis: No cointegration
Trend assumption: No deterministic trend
User-specified lag length: 1
Newey-West automatic bandwidth selection and Bartlett kernel

Alternative hypothesis: common AR coefs. (within-dimension)

	Statistic	Prob.	Weighted Statistic	Prob.
Panel v-Statistic	-1.981694	0.9762	-2.107819	0.9825
Panel rho-Statistic	0.889430	0.8131	0.879111	0.8103
Panel PP-Statistic	-2.981991	0.0014	-2.387079	0.0085
Panel ADF-Statistic	-1.176139	0.1198	-0.763169	0.0007

Alternative hypothesis: individual AR coefs. (between-dimension)

	Statistic	Prob.
Group rho-Statistic	1.586850	0.9437
Group PP-Statistic	-3.866416	0.0001
Group ADF-Statistic	-0.745476	0.0080

KAO PANEL COINTEGRATION TEST RESULTS

Kao Residual Cointegration Test
Series: RGDP FDI FPI MCAP TVL TOP EXR
Date: 06/18/19 Time: 14:18
Sample: 1995 2017
Included observations: 69
Null Hypothesis: No cointegration
Trend assumption: No deterministic trend
User-specified lag length: 1
Newey-West automatic bandwidth selection and Bartlett kernel

	t-Statistic	Prob.
ADF	-2.779771	0.0027
Residual variance	3.999237	
HAC variance	3.078347	

APPENDIX VI

POOLED MEAN GROUP ESTIMATOR RESULT

Dependent Variable: D(RGDP)
Method: ARDL
Date: 06/18/19 Time: 14:20
Sample: 1997 2017
Included observations: 63
Maximum dependent lags: 1 (Automatic selection)
Model selection method: Akaike info criterion (AIC)
Dynamic regressors (2 lags, automatic): FDI FPI MCAP TVL TOP EXR
Fixed regressors: C
Number of models evalulated: 2
Selected Model: ARDL(1, 2, 2, 2, 2, 2, 2)
Note: final equation sample is larger than selection sample

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
Long Run Equation				
FDI	0.702518	0.035351	19.87252	0.0023
FPI	0.317088	0.040042	7.918818	0.0043
MCAP	0.142775	0.010729	13.30785	0.0022
TVL	0.707264	0.082482	8.574746	0.0067
TOP	0.161783	0.006240	25.92889	0.0064
EXR	0.015678	0.000900	17.42911	0.0021
Short Run Equation				
COINTEQ01	-0.268618	0.108462	-2.476610	0.0271
D(FDI)	0.539379	0.918237	0.587407	0.5632
D(FDI(-1))	0.111817	0.347385	0.321882	0.7507

D(FPI)	0.941973	0.452291	2.082669	0.0497
D(FPI(-1))	0.578304	0.716980	0.918663	0.3687
D(MCAP)	-0.117630	0.175210	-0.671365	0.5093
D(MCAP(-1))	-0.020810	0.104229	-0.199652	0.8437
D(TVL)	0.033600	5.655975	1.066766	0.2982
D(TVL(-1))	-0.573289	0.928140	-0.617675	0.4165
D(TOP)	0.250826	0.261362	0.959688	0.3481
D(TOP(-1))	0.034891	0.130903	0.266536	0.7924
D(EXR)	0.162182	0.117036	1.385742	0.1804
D(EXR(-1))	-0.123369	0.233371	-0.528640	0.6026
C	0.487720	0.539757	0.903591	0.3325

Mean dependent var	-0.118571	S.D. dependent var	2.222146
S.E. of regression	1.776341	Akaike info criterion	2.874087
Sum squared resid	66.26313	Schwarz criterion	4.428248
Log likelihood	-51.15600	Hannan-Quinn criter.	3.490675

*Note: p-values and any subsequent tests do not account for model selection.

APPENDIX VII

SHORT RUN CROSS SECTIONAL RESULTS

KENYA

Variable	Coefficient	Std. Error	t-Statistic	Prob. *
COINTEQ01	-0.157167	0.019082	-8.236304	0.0037
D(FDI)	-0.536363	0.107815	-4.974853	0.0156
D(FDI(-1))	-0.351694	0.079009	-4.451335	0.0211
D(FPI)	0.336511	0.118574	2.837982	0.0658
D(FPI(-1))	-0.523385	0.124477	-4.204684	0.0246
D(MCAP)	0.097643	0.003497	27.92434	0.0001
D(MCAP(-1))	0.183203	0.003326	55.08963	0.0000
D(TVL)	1.353912	0.208224	6.502173	0.0074
D(TVL(-1))	0.447306	0.218061	2.051290	0.1326
D(TOP)	-0.042151	0.010787	-3.907434	0.0298
D(TOP(-1))	0.110586	0.010708	10.32754	0.0019
D(EXR)	-0.025671	0.000565	-45.44210	0.0000
D(EXR(-1))	0.000866	0.000421	2.055152	0.1321
C	-0.614567	0.686557	-0.895143	0.4367

SOUTH AFRICA

Variable	Coefficient	Std. Error	t-Statistic	Prob. *

COINTEQ01	-0.102412	0.003488	-29.36004	0.0001
D(FDI)	-0.211765	0.002714	-78.01660	0.0000
D(FDI(-1))	-0.104644	0.003363	-31.11541	0.0001
D(FPI)	0.662669	0.031686	20.91389	0.0002
D(FPI(-1))	0.077557	0.024288	3.193265	0.0496
D(MCAP)	0.014190	9.90E-05	143.2787	0.0000
D(MCAP(-1))	0.052805	0.000590	89.47462	0.0000
D(TVL)	-0.545387	0.016387	-33.28174	0.0001
D(TVL(-1))	0.199705	0.009316	21.43722	0.0002
D(TOP)	0.022409	0.001338	16.74811	0.0005
D(TOP(-1))	-0.220005	0.001419	-155.0411	0.0000
D(EXR)	0.135170	0.028213	4.791153	0.0173
D(EXR(-1))	-0.575114	0.024913	-23.08445	0.0002
C	0.527113	0.065757	8.016023	0.0041

NIGERIA

Variable	Coefficient	Std. Error	t-Statistic	Prob. *
COINTEQ01	-0.290342	0.095369	4.044407	0.0272
D(FDI)	2.366264	0.152010	15.56655	0.0006
D(FDI(-1))	0.791789	0.016572	47.77896	0.0000
D(FPI)	1.826739	0.090739	20.13180	0.0003
D(FPI(-1))	0.744232	0.166130	4.479823	0.0207
D(MCAP)	-0.464721	0.004071	-114.1536	0.0000
D(MCAP(-1))	-0.173579	0.001391	-124.7797	0.0000
D(TVL)	17.29228	8.638782	2.001703	0.1391
D(TVL(-1))	0.536687	0.047141	11.38470	0.0015
D(TOP)	0.772220	0.018693	41.31062	0.0000
D(TOP(-1))	0.214091	0.003087	69.35355	0.0000
D(EXR)	0.377045	0.005357	70.38120	0.0000
D(EXR(-1))	0.204142	0.001360	150.1325	0.0000
C	19.55061	15.89216	1.230205	0.3063