Effect of Foreign Direct Investment on Stock Market Development in Selected Sub-Saharan African Countries (1984-2015)

OSADUME, Chinye Richard
2012417006F

BEING A DISSERTATION PRESENTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF DOCTOR OF PHILOSOPHY (Ph.D) IN BANKING AND FINANCE

DEPARTMENT OF BANKING AND FINANCE
FACULTY OF MANAGEMENT SCIENCES
NNAMDI AZIKIWE UNIVERSITY, AWKA

JULY, 2017

DECLARATION

This is to declare that this research work was carried out by Osadume, Chinye Richard; Reg. No.2012417006F. To the best of my knowledge, this work is original and has not been previously submitted to this University or other institution for research work.

---------- ----------

Osadume, Chinye Richard Date

APPROVAL

We hereby certify that this dissertation titled "Effect of Foreign Direct Investment on Stock Market Development in Selected Sub-Saharan African Countries (1984 – 2015)by Osadume, Chinye Richard with Registration No. 2012417006F, satisfied the standard in partial fulfilment of the requirements for the award of Doctor of Philosophy (Ph.D) in Banking and Finance.

---------- ----------
Professor Alex Umunna Mbachu **Date**
First Supervisor

---------- ----------
Professor Steve Ibenta **Date**
Second Supervisor

---------- ----------
Dr. P. K. Adigwe **Date**
Head of Department

---------- ----------
Rev.(Canon) Professor Anayo D. Nkamnebe **Date**
Dean, Faculty of Management Sciences

---------- ----------
Professor Mike Anyanwaokoro **Date**
External Examiner

---------- ----------
Professor Harris Ike Odumegwu **Date**
Dean, School of Post-Graduate Studies

DEDICATION

I dedicate this work and the completion of my Ph.D programme to the Almighty God, through his blessed son, Jesus Christ for the strength, courage and abundant grace to successfully complete this programme.

ACKNOWLEDGEMENTS

Firstly, I wish to thank God, who out of his mercies gave me life and preserved me against all odds to complete this programme. I wish to thank Associate Professor Clem Nwakoby who encouraged me to enroll for this programme and taught me at different stages of my studies. I must thank my Professor in Finance, late Alex Umunna Mbachu, who welcomed and supervised my works at various stages before his demise in the course of the programme.I also wish to sincerely thank our indefatigable Professor of Finance, Prof. Steve Ibenta, who took the pains to continue and conclude the supervisory work on this dissertation when the sudden demise of Prof. Alex Mbachu occurred, without you this degree may not have been possible.

The invaluable contributions and reviews of Dr.(Mrs.) Felicia Anyanwu cannot be erased from this work and am very grateful. Our Head of Department's contributions to my learning, supervision and knowledge are highly appreciated and wish to thank Ass. Prof. P. K. Adigwe for these. Dr. Celestine Okaro, our departmental Post-Graduate coordinatorand my dissertation reviewer/departmental examineris highly appreciated for his advice and insightful contributions to this research work.

I wish to further thank my various reviewers namely - Dr. S. C. Okaro of Accounting department, who was my internal faculty examiner;Dr. Ifeanyi Nwanna and Prof. Vincent Ezeabasili, who reviewed this dissertation as well as examined me during the departmental internal defence. The invaluable reviews and pains-taking contributions of Dr. Victor Ikeotuonye Okonkwo to this research work and its synopsis is highly appreciated.

I wish to also thank our departmental lecturers, some of who taught me at various stages or assisted me as my counsellor and guide during my study, they include – Dr. Gideon Ezu, Mr. Felix Echekoba, Elder Ekezie, and Mrs Ifeyinwa Amakor. The contributions of the departmental Administrative staff, namely Mrs Nebe, Mrs Christy, Miss Awulika and other departmental secretarial members, who assisted with my documentation work at various stages of this programme including course and dissertation defence registrations. I also wish to appreciate our faculty Dean, Rev.(Canon) Prof. Anayo Nkamnebe and the sub-dean, Dr. Ogboli who presided over our faculty defence and their numerous contributions to this work. I wish to thank Dr. Chidiebere Umeh of University of Nigeria Nsukka and Prof. Chinedu Ezirim of University of Port-harcourt, both mentored me in Econometrics and contributed immensely to the final outcome of this work.

I also wish to thank all my colleagues for their accommodation, understanding, support and knowledge sharing during the period of my study. They include Henry Akani, Jumine Madume, Ogbonna Kelechukwu Stanley, Vitalis Obialom, Joe Nduka, Venerable Obesie, Idika Joel, Emeka, Nonye, Osakwe Charity, and Gbadebo Abraham. The support of my spiritual mentors and counsellors during the currency of this programme is highly appreciated among whom are Rev. Anthony Oluwasaanu, Rev. Francis Umafulam and my auntie, Mrs. Justina Anumbor, for her financial contributions towards my studies.

Finally, l am most grateful to my wife, Queen Esther and children – David, Praise, Daniel and Dorothy for their encouragement, understanding and co-operation throughout this programme.

Osadume, Chinye Richard

July, 2017

TABLE OF CONTENTS **Page**

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

This Study examined the Effect of Foreign Direct Investments (FDI) on Stock Market Development (SMD) in Selected Sub-Saharan African (SSA) Countries from 1984 to 2015.FDI increase should result to increase in SMD indicators but some available findings from studies appear to disagree with this proposition.The objective of this study was to examine the Effect of FDI on SMD indicators of the selected SSA Countries. The study used secondary data obtained from World Bank, IMF, Bureau of Statistics and the Central Bank of selected countries; The research work selected Nigeria, South Africa and Kenya as its sample and used the OLS and GLSPanel Data Analysis techniques, to test the Effect of the independent variables (FDI, and Gross domestic product) on the dependent variables (Market Capitalization, Market turnover, Number of listed shares, value of stock traded, All share index) at the 5% level of significance. The findingsamongst others show that FDI had a significant effect on market capitalization in Nigeria and South Africa but insignificant effect in Kenya;while the SSA countries'pooled panel resultindicatethat FDI had a positive and significant effect on market capitalization. This result implies that 1% increase in FDI will result to 1.7048% increase in market capitalization. Thestudy concludes that FDI affects SMD indicators and hence, recommends among others the provision of FDI friendly environment and implementation of market-friendly regulations such as reduction in listing requirements that will enable FDI benefiting Multinational companies (MNCs) to be listed on the stock exchange.

CHAPTER ONE

INTRODUCTION

1.2 Background of the Study

Stock market Performance is an important index in economic development measurement of a country.It is also an important indicator of future economic activities and strength. Foreign Direct Investment as a key driver of international economic integration serves as a source of long term finance on a nation's stock market for economic activities (Desai, Foley & Hines, 2006). According to the World Bank (2015), Foreign Direct Investment refers to an investment made to acquire lasting or long-term interests in enterprises operating outside the economy of the investor. The investment is direct because the investor, which could be a foreign person, company or group of entities, is seeking to control, manage or have significant influence over the foreign enterprise.The world financial body believes that Foreign Direct Investment is a major source of long term external finance and is regarded as finance beyond National Borders for Less Developed Countries (LDCs) from wealthier countries. The report further stressed that foreign direct investment and small business growth are the two critical elements in developing the private sector stock markets in Lower-income economies and reduce poverty.

This investment consists of external resources including technologies, managerial expertise, financial capital, machines, marketing expertise, material and human capital with controlling ownership by an entity based in another country. Some reasons for such investments could be to globalize production and competition. Secondly, it could also be to stimulate local development

while others may include complementing indigenous efforts and to move some aspects of production to more profitable locations (Desai Foley & Hines, 2006).

Oseni and Enilolobo (2011), mentioned that financial markets, especially stock markets, have grown considerably in developed and developing countries over the last two decades as a result of rapid financial and political transformation. In an attempt to increase share of foreign direct investment flows, most of the countries including thoseunderstudy have eased restrictions on foreign direct investment, strengthened macroeconomic stability, privatization of State-owned enterprises, domestic financial reforms, capital accountliberalization, tax incentives and subsidiaries have been instituted, all to create enabling environment for foreign Direct Investments to thrieve (Deloitte, 2010). For instance, the introduction of fiscal incentives such as tax reliefs – tax holidays and tax reduction and non-tax benefits – exchange rate stabilization etc in Nigeria (CBN, 2013); the government of South Africa in 1996 introduced GEAR (Growth, Employment And Redistribution) to ease trade liberalization, deregulation of capital controls, deficit reduction, exchange rate stabilization and tax relief incentives (Deloitte, 2010); While Guaranteed Expropriation of private property, guaranteed capital repatriation, remittance of dividend and interests were introduced in Kenya (Kenya Investment Authority, 2004).

Ayanwale (2007), stressed that in the last two decades, for example, foreign Direct investments (FDI) flows have grown rapidly all over the world. In Nigeria, FDI per annum averaged $1,366.45million from 2007 until 2016. This is because many developing countries see FDI as an important indicator in their strategy for economic development. Mergers and acquisitions including private-to-private transactions as well as acquisition through privatization, which increased significantly in developing countries became an increasingly important vehicle for FDI (Kyaw,

2003). This has led to many countries improving their business climate to attract more FDI, thus improving the strength of their capital markets. In fact, one of the pillars for launching the New Partnership for Africa's Development (NEPAD) was to accelerate FDI inflows to the region (Funke & Nsouli, 2003).According to United Nations Conference on Trade and Development (UNCTAD, 2007) in 2006, about 40 African countries introduced 57 new measures affecting FDI of which 49 encouraged inward FDI. The increase in FDI inflows largely reflected relatively high economic growth and strong capital market performance in many parts of the world (UNCTAD, 2008).Reinvested earnings accounted for about 30% of total FDI inflows as a result of increased profits of foreign affiliates, notably in developing countries. In Sub-Sahara Africa, FDI inflows increased from $18Billion in 2004 to $36Billion in 2006. This was due to increased interest in natural resources, improved prospects for corporate profits and a more favourable business climate.

Nwosa (2015), and Dailami and Aktin (1990), all observed that the stock market emerged as a result of the failure of the banking sector in providing long term finance for real sector development. In spite of the potential of the stock market in attracting capital inflows, the underdeveloped nature of the Sub-saharan African region stock markets in terms of opportunities for portfolio diversification and weak regulatory infrastructures have acted as strong militating factors to the inflows of foreign capitalinto the region's economies (Ndikumana, 2003; Levine & Zervos, 1998).

Despite thesechallenges, the Sub-saharan African stock markets have experienced notable and unprecedented growthover the years.The annual all share index for Nigeria for instance, grew from 100 in 1984 to 28,887.4by June 2004 representing 28,788% and further by 127.27% by February 2008 before decliningby 69.53% in November2011 due to the impact of the 2008 global financial

crisis and later moved up by 105.57% in 2013.This cyclical trend continued until the index closed up at 27,727.77 in 2015, representing 38.62% growth. In a similar fashion, the annual market capitalization grew from below ₦6billion in 1984 to ₦1,922.18billion ($15,865.94m) in 2004, representing 319.36% growth and dropped by 45.65% in 2008due to the global financial crisis before inching up by 114.78% in 2013and later dropped by 22.59% in 2015 to close at₦9,816.37 billion ($49,973.88m).Similarly, for South Africa,the annual market capitalization grew from $53.388 billion in 1984 by 722.84% by close of 2004 anda further growth of 9.03% and 95.24% in 2008 and 2013 respectivelybefore closing at $735.95 billion in 2015 representing a negative growth of 21.95%.Likewise for the Kenyan stock market,the annual market capitalization grew from below $400m in 1984 by 872.74% in 2004 and by a further 180.56% and 103.88% in 2008 and 2013 respectively, before closing at $18.2044Billion in 2015 representing a decline of 18.21%.It is observed that comparatively between 1984 and 2015; all the markets have witnessed remarkable growths on these indicators from above analysis.This phenomenal increases observed in the Sub-saharan African stock markets have raised serious concerns on the contributions of the capital inflows (FDI) on stock marketsdevelopment in theregion, given the gross inadequate domestic savings that have hindered economic growth in the Sub-saharan African economy. Hence, understanding the role of the stock market in attracting foreign capital is a topic that demands cautious enquiry.

The review of literaturesrevealed that little attention has been paid on the Effect of Foreign Direct Investments on stock market development and there exist very limited comparative work on subject within the Sub-saharan African hemisphere. Thevery few studies in this regard include Adam and Tweneboah (2008) on Ghana, Al Nasser and Soydemir (2010) on Latin American countries, and

Otchere, Soumare and Yourougou (2011) on Africa. Within the Nigerian economy, plethoras of studies have only focused on the relationship between stock market development and economic growth (Akinlo 2004; Mojekwu & Ogege, 2012; Ali & Abdullahi, 2015). Despite the quantum of studies, little attention has been paid to the effect of foreign direct investments on the individual stock market development components. This study considered five measuresof stock market development (which include marketcapitalization, turnover ratio, value traded ratio, number of listed securities and All Share market index) and foreign direct investment. To the researcher's best knowledge, existing studies havenot examined the relationship between stockmarket development and foreign direct investments, taking intocognizance the above mentioned variables on a Sub-saharan African comparative basis. Itis against the above background that this study seeks toexamine the effect of foreign direct investments on stock market development in Sub-saharan Africa for the period 1984 to 2015.

1.2 Statement of the Problem

Foreign Direct Investments have been described as a cheap and sustainable source of long term finance for the Stock Market's utilization to meet the long term intermediation needs of the local economy in both private and public sectors to engender real sector development (Desai, Foley & Hines, 2006; World Bank, 2015).

The above scenario presupposes that an increase in foreign direct investment in the local economy will result to increase in availability of long term developmental funds on the stock exchange market and its implication is several including increase in market capitalization as the foreign investors will channel such funds to the acquisition of shares of existing profitable or

prospective local enterprise or multinational companies. According to Farole and Winkler (World Bank, 2014), they held thatin such a situation, local enterprises will be able to fund their operational, tactical and strategic projects and achieve their profit and capital appreciation goals while the foreign investors hold controlling influence in such businesses. Another implication of increase in foreign direct investment is that it results to increase in stock market liquidity and helps investors to trade in securities easily (Farole & Winkler, 2014). This will lead to increase in market turnover and enhance the long term prospects of Economic Growth of the country. The influx of capital into the stock market will also ginger the listing of more companies and securities on the stock exchange, creating more vibrancy and activities in the market. Increase in the number of companies and securities will result to greater market stability and breed confidence. The value of stock traded will also increase when trading capital on the stock market increases resulting to greater profitability, reduced risk and diversification of investments in the market. When there is available capital for long term investment, there will be increased product innovations and development of more and improved financial derivatives in the market as obtained in developed countries of the world. The all-share-index which shows the changing average value of the shares of all listed companies on the stock exchange, a measure of how well a market is performing will also increase because of increase in number of listed securities and market liquidity. Hence, in such an ideal situation, the World Bank (2015)posited that an increase in fixed capital (FDI) should cause an increase in stock market size and its development indicators mentioned above. The above position is further supported by Desai et al (2006), Henry (2000), Otchere et al (2011) and Adam and Tweneboah (2008) to mention but few.

It is observed however, that in reality the above painted scenario most often does not hold as the results of most research works particularly for Less Developing Countries (LDC) run at conflict in majority of cases when compared with the ideal position as established by the World Bank and a few erudite researchers such as Levine and Zervos (1998) that found a positive and significant relationship between FDI and Stock Market Development indicators in the long-run period; Adam and Tweneboah (2008) found a significant positive impact of FDI on Stock Market Development indicators; and, Soumare and Tchana (2015) that discovered a positive, significant and bi-directional causal relationship between FDI and Stock Market Development indicators. It was also noted that most of the studies carried out used mainly Market Capitalization as the only measure of stock market development using ordinary least square regression as their analytical technique(Kohli, 2003; Desai, Foley & Hines, 2006; and, Adaramola & Obisesan, 2015)but World Bank (2015) recommended four (4) parameters for measuring stock market development. We also observed the problem of domestication or localization from some of the studies carried out as most focused on Europe, Asia, North and Southern America and very few on Africa; and the intervening conditions are different. A few of these researches that had contrary results when compared to above ideal situation includes;Sulaiman and Mohammed (2014), Singh and Weisse (1998), Lamouchi and Zohari (2013),all observed a negative long-run relationship between FDI and stock market development; while Oke (2012) observed no long-run relationship; but Kohli (2003), Kaleem and Shalibaz (2009) and Chauhan (2013) observed a positive long-run relationship.Singh, (1997) found positive relationship between economic growth and stock market development and also, Oseni and Enilolobo (2011), held from their research that FDI and

stock market development had significant positive impact on economic growth in Nigeria. Again, the focus was on market capitalization leaving out other stock market development indicators. We shall review this list in details in our empirical studies.

It is evident from above studies that there are inconsistencies and disagreements on the effects of FDI on stock markets developments;Hence, while some researchers argued that there exist significant relationship between the dependent and independent variables, others argued that such a relationship if it exists is insignificant. Similarly, some researchers studied the "relationship" between these variables;but this study will focus on the 'effect'between the variables in the sub-saharan African economies because of its underdeveloped nature inspite of its rich endowments in oil, gas and gold. (World Bank, 2007, 2015).It is our aim in this investigation to resolve such controversies and apply a uniform bench mark in measuring the development of the stock markets in the region in the short and long run equilibrium periods. We studied the effect of FDI on each of the stock market development components namely; Market capitalization, Market turnover, Value of stocks traded and Number of listed shares (World Bank, 2015) and inaddition, introduced a key variable which we considered important for a less developing region like Sub-Saharan African countries in measuring stock market development (All Share Index). Most of the studies have used ordinary least square regression and the result was abovecontroversial findings; we resolved this by adopting a panel data analysisinaddition to the above, for our sample study areas using Generalised Least Square regression technique that incorporates time series and panel data features unlike some of the earlier methods used that focused mostly on time series features only. This assisted us to determine the effect of FDI on

stock market development within our context and provided a guide in advising concerned policy makers on what the policy direction should be in order to achieve government relevant objectives.

1.3 Objectives of the Study

The main objective of this studyisto examine the effect of foreign direct investment on stock market development in SelectedSub-Saharan African Countries.

The specific objectives include:

1. To examine the effect of foreign direct investments on market capitalization ratio ofSelectedSub-Saharan African countries.
2. To determine the effect of foreign direct investments on stock market turnover ratio ofSelected Sub-Saharan African countries.
3. To assess the effect of foreign direct investments on value of stock traded ratio of Selected Sub-Saharan African countries.
4. To evaluate the effect of foreign direct investments on number of listed securities of Selected Sub-Saharan African countries.
5. To establish the effect of foreign direct investments on All Share Index of Selected Sub-Saharan African countries.
6. To ascertain the direction of Causality betweenforeign direct investment and stock market development indicatorsin the Sub-Saharan African countries.

1.4 Research Questions

Our study seeks to answer for each of the economy'sstock market the following questions:

1. To what extent does foreign direct investment affectmarket capitalization ratio of the selected sub-saharan African countries?
2. To what degree does foreign direct investment affect stock market turnover ratios of the selected Sub-Saharan African countries?
3. To what scope does foreign direct investment affect value of stock traded ratio in the seleceted Sub-Saharan countries?
4. What is the relationship betweenforeign direct investment andnumber of listed securites in the selected Sub-Saharan African countries?
5. To what level does foreign direct investment affect All Share Index in the selected Sub-Saharan African countries?
6. What is the direction of Causality between foreign direct investment andstock market development indicators in the selected Sub-Saharan African countries?

1.5. **Research Hypotheses**

This study is to be guided by the following hypotheses.

Ho_1: Foreign direct investment has no significant effect on stock market capitalizationratio of the selected Sub-Saharan African countries.

Ho_2: Foreign direct investment has no significant effect on stock market turnover ratio of the selected Sub-Saharan African countries.

Ho_3: Foreign direct investment has no significant effect on the value of stock traded ratio in the selected Sub-Saharan African countries.

Ho_4: Foreign direct investment has no significant effect on the number of listed securities on the stock market of the selected Sub-Saharan African countries.

Ho_5: Foreign direct investment has no significant effect on the All Share Index of the stock market of the selected Sub-Saharan African countries.

Ho_6: Foreign direct investment has no causal effecton stock market development indicators of the selected Sub-Saharan African countries.

1.6 Scope of the Study

Data of most Sub-Saharan African countries that would have been included were not available at the time of collection from the data base of World Bank, International Monetary Fund, National Bureau of Statistics and their respective Central Banks between 1984 and 2015; hence we limited our study sample to three major countries and study period between 1984 and 2015 (32 years) that we could conveniently and reliably obtain their data from the data base.Also, the governments of selected countries have carried out reforms within these periods which have facilitated the availability of information on stock market activities.

The selected stock markets followed the rules as provided in the work of Patton (2002) on sample selection and states that a researcher may engage in purposeful sampling for information-rich cases and need for most effective use of limited resources. Based on the above, we selected three Sub-Saharan African stock markets which from the researchers view will give a realistic analytical depth of the Sub-Saharan Africa situation.The criteria for such selection were;

i. Gross Domestic Product (GDP) size;

ii. life span of the stock market; and

iii. The size of its market capitalization.

The Sub-Saharan African countries were unbundled into three region namely West Africa, Southern Africa and Central and East Africa; and countries with the highest volume of selected criteria as stated were chosen. The selected sample markets based on the above are;

1. Nigerian Stock Exchange (NSE), Nigeria.
2. Johannesburg Stock Exchange (JSE), South Africa.
3. Nairobi Stock Exchange, Kenya.

1.7 Limitations of the Study

The researchers in the course of this study encountered some challenges which constituted limitations on this investigation. These include;

1. **Period Covered and Data Pausecity**: The researchers could collect annual data for only 32 years covering 1984 to 2015, which was sufficient in statistical terms but less than was originally intended for this research.

2. **Cross Country Stock Exchange Information:** The informations provided by the different stock marketsreflected the different accounting and financial policies adopted by their stock Exchanges across the continent. These data had to be reclassified and converted into the same comparable units and standard international currency, which was difficult.

3. **Data Gathering:** On the study itself, its usually very difficult to gather relevant data since most of them had to be sourced from different organisations and data rendition by some less developing countries (LDC) to the international database of World Bank or International

Monetary Fund in some cases are either not updated regularly or fraught with mis-measurement or mispecification in some cases.

4. **Method of Data Analysis:** The method often chosen in research work to analyse gathered data for effective completion of the investiagation can adversely affect the outcome of the procedure if not cautiously done. Similar work of this nature done in other continents have yielded varying results due analytical methods adopted and the researchers will be carefully guided by this in chosing an appropriate method of analysis, to ensure the delivery of accurate results from this investigation.

1.8 Significance of the Study

The primary role of Stock Markets is the provision of long term finance for fund mobilization and developmental purposes and the Foreign Direct Investments serves as sources for such long term fund that could be accessed by the markets.This research amongst other things is expected to broaden the scope of knowledge in the following areas:

1. **Investors:** It will expose the functional relationship existing among the variables of interest which will sharpen their investment appraisal skills and hunches.It will further bring to fore the seemingly silent but significant relationship between foreign direct investment and stock market development to the advantage of both prospective and existing investors in the stock market. This study will help raise the awareness about the usefulness of ASI and other stock market development parameters in assessing the

strength, richness and performance of the capital market and give greater foreign investor confidence in approaching investment in Sub-Saharan Africa.

2. **Policy Makers**: To encourage policy makers, regulators and the government, to develop appropriate capacities and put in place adequate structures to guide and monitor excellent performance and safety of the stock market in particular and financial system in general.This current research work contributes to the literature as it adopts a thirty-two years period with a more recent data (1984 – 2015) as against other empirical studies in the literature reviewed particularly on Sub-Saharan African Countries.The robustness of this result will enable the government and stock market regulators and operators to make informed decisions.

3. **The Academia:** To serve as a knowledge bank and reference on foreign direct investments and stock market development analysis for prospective researchers and students of the banking and finance discipline.

4. **Economic Watchers/General Public:** the general public will gain some insight into the economic and monetary phenomena called foreign direct investments. It will further enlighten them on whether or not the hypothesized relationship with stock market development truly exists.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Conceptual Review

2.1.1. Foreign Direct Investments

Foreign Direct Investment (FDI) is becoming an increasingly significant catalyst for output and trade in developing countries of the world and its associated stock markets,which is partly due to a major expansion in the scope of global value chain (GVC) (World Bank, 2014). The World Bank report further stressed that FDI delivers many important contributions to economic development in terms of investment, employment and foreign exchange, but its spillover potential – the productivity gains resulting from the diffusion of knowledge and technology from foreign investors to local firms and workers-that is perhaps its most valuable input to long-run growth and development.

According to the World Bank (2015), Foreign Direct Investment refers to an investment made to acquire lasting or long-term interests in enterprises operating outside of the economy of the investor. The investment is Direct because the investor, which could be a foreign person, company or group of entities, is seeking to control, manage or have significant influence over the foreign enterprise. The world financial body believes that Foreign Direct Investment is a major source of long term external finance and is regarded as finance beyond National Borders for Less Developed Countries (LDCs) from wealthier countries.

The understanding of the mediating factors that shape the extent and nature of foreign direct investment spillovers, specifically the spillover potentials of foreign investors and the absorptive capacity of local firms and workers assists will largely help the host country's government in making policies that will aid the growth of FDI stock in its economy. The avenues through which FDI spillovers can be generated include labour turnover, supply chains, and changing market forces, and are influenced by characteristics of foreign and domestic firms, as well as host countries and the institutional framework (World Bank, 2014). Factors at the foreign investor level include degree and structure of foreign ownership, FDI motive, global production and sourcing strategies, technology intensity, FDI home country, entry mode and length of presence in the country. The domestic level factors that affect local firms and the stock market absorptive capacity include the technology and productivity gap, research and development (RandD), human capital, firm size and scale, firm location, exporting, sector dynamics, competition and type of ownership.

Farole and Winkler (World Bank, 2014), in their study of over 25,000 domestic manufacturing firms in 78 low and middle-income countries between 2006-2010, identified three types of mediating factors that influence productivity spillovers to domestic firms from FDI, namely – (i) foreign investor's spillover potential, (ii) domestic firm's absorptive capacity, and (iii) country's institutional framework. They held that these three mediating factors affect the extent and direction of FDI spillovers on domestic firm's productivity and the structure of foreign ownership, which in turn affect the growth and development of their stock markets.

Theyconcluded from above findings that spillovers from FDI in the short term are not necessarily positive in developing countries, due in part to competition over scarce skilled labour, yet over time, FDI can lead to a beneficial positive relationship and restructuring of the entire industry with its attendant impact on the development of its stock market.

2.1.2 **Types of Foreign Direct Investments**

Essentially Foreign Direct Investments could comprise of any or all of the following types, namely:

Horizontal Foreign Direct Investment: arises when a firm duplicates its home country-based activities at the same value chain stage in a host country through FDI.

Platform Foreign Direct Investment: Foreign direct investment from a source country into a destination country for the purpose of exporting to a third country.

Vertical Foreign Direct Investment: takes place when a firm through FDI moves upstream or downstream in different value chains i.e., when firms perform value-adding activities stage by stage in a vertical fashion in a host country.

This implies that the overall FDI (which we have represented by variable X, the independent variable in this section) of any country could comprise of any or all of – Horizontal FDI (X_1), Platform FDI (X_2) or Vertical FDI (X_3);

Hence, $X = f(X_1, X_2, X_3)$

In our study, therefore, FDI figure is a summation of all FDI types (X_1, X_2, X_3).

2.1.3 Significance of Foreign Direct Investments

According to International Monetary Fund (1999), the significance of Foreign Direct investments include:

i) It is an important source of private external finance for developing countries. It is different from other major types of external private capital flows in that it is motivated largely by the investors' long-term prospects for making profits in production activities that they directly control. Foreign bank lending and portfolio investment, in contrast, are not invested in activities controlled by banks or portfolio investors, which are often motivated by short-term profit considerations that can be influenced by a variety of factors (interest rates, for example) and are prone to herd behavior.

ii) It is also a means of transfering production technology, skills, innovative capacity, and organizational and managerial practices between locations, as well as of accessing international marketing networks.

iii) It brings about improved economic growth due to the influx of capital and increased tax revenues for the host country.

iv) Private Foreign Direct Investments are risk free to the host country and contributes to foreign exchange earnings, employment creation and increases in incomes, especially of skilled and semi-skilled workers in its various industries.

v) Foreign Direct Investments will help improve the quality of products and processes in a particular sector, increased attempts to better human resources.

2.1.4 FiscalIncentives to Stimulate FDI -Focus on Sub-Saharan Africa

According to United Nation Conference on Trade and Development (UNCTAD 2015), Multinationals make their decisions to enter a particular market mostly on the basis of economic determinants – e.g. the size and growth of a market, access to resources or strategic assets, and the cost of factors of production. Moreover, a host of non-tax policy determinants are generally considered more relevant for location decisions, such as the stability and predictability of the business climate, the strength of commercial law and contract enforcement, trade restrictions, the intellectual property (IP) regime, and many others.

In this view, tax does not so much drive locational decisions as it drives the modality of the investment and the routing of investment flows. Top managers of MNEs decide to enter a given market largely independent of tax considerations, and their tax advisers then structure the investment in the most tax-efficient manner. The fact that a significant share of global investment is routed to its final destination through special purpose entities (SPEs) and tax havens, discussed later in this chapter, lends credence to this view.

The relevance of tax in investment decisions is generally considered low for resource- and strategic asset-seeking investments and for market-seeking investments, and only one of many determinants driving location decisions for efficiency-seeking investments. However, a number of nuances require consideration.

i. Resource-seeking investments can be highly capital intensive and have very long gestation periods. Calculations of expected returns can be extremely sensitive to cost factors, of which tax is an important one. Investments tend to be subject to long and arduous negotiations over precisely how rents are distributed between investors and states, and through what fiscal mechanisms. The fact that negotiators on both sides make trade-offs between different levying mechanisms (e.g. taxes versus royalties) should not be mistaken for a lack of attention to any one of them. Moreover, stability and predictability in the fiscal treatment of these investments are crucial, given their long-term nature and long payback periods.

ii. Market-seeking investments per se may appear to be less sensitive to tax. But the modus operandi of investors can be strongly influenced by tax. The extent to which MNEs source and produce locally or rely on imported value added, key to the development impact of foreign investments on host economies, is clearly influenced by tax. The common view that market-seeking investments are less sensitive to tax tends to confuse the market-entry decision with actual investment in productive capacity.

iii. Efficiency-seeking investments, through which MNEs look for low-cost locations for parts of their production process, are highly sensitive to tax. Counter-intuitively, for many of these investments low tax rates do not actually feature high on the list of locational determinants that MNEs consider, because the expected rate is exceedingly low. Due to the nature of these investments, they tend to be located in special economic zones or fall under special regimes. The differentials across locations in labour costs and

productivity, availability and cost of land and other factors of production, and trading costs, tend to be far more important than tax rate differentials at such low levels. However, it is the tax base that is really of interest to investors in efficiency-seeking operations, as these are often steps in the global value chains of MNEs, and transfer pricing plays a prominent role. In addition, low taxes on international transactions are obviously a key determinant. Without special regimes, economies are often at a disadvantage for efficiency-seeking investments, confirming the fact that tax can be a key locational determinant. Thus the importance of tax as a locational determinant risks being generally underestimated. The growth of global value chains, which has increased the relative weight of efficiency-seeking investments in the mix, has served only to make tax an even more important factor in countries' attractiveness and this trend is likely to continue.

It is not only the level of taxation that matters in investment decisions. It is also the ease with which tax obligations can be fulfilled that is important. Indicators of the ease of doing business – covering a range of administrative procedures relevant to business operations, including paying taxes – generally feature prominently in location comparisons presented to investors. UNCTAD's Business Facilitation programme, which helps developing countries simplify administrative procedures for investors, prioritizes procedures for paying taxes immediately after procedures for business registration and licensing.Most important is the stability and predictability of the fiscal environment in host countries. A perceived risk of significant changes

in the fiscal regime or in the fiscal treatment of individual investments will tend to be a showstopper. Fiscal authorities that demonstrate the capacity to establish collaborative relationships with investors and provide confidence as to the continuing fiscal treatment of investment operations can help remove a major obstacle to investment.In summary, tax plays an important role in location decisions, principally in three ways: the fiscal burden, the administrative burden, and long-term stability and predictability.

UNCTAD in its world investment report (WIR, 2015) stressing the importance of tax in location decisions implies that fiscal incentives are an important tool to attract investment. In fact, those developing countries that have been most successful in industrial development over the past decades have made use of various forms of incentives schemes to attract the foreign investment they needed to kick-start economic activities and to bring in the necessary technology and know-how. The success of export-processing and special economic zones in those countries – forms of incentives scheme – is proof of their effectiveness.Despite the evidence, policy advisors in international organizations have long warned against the dangers and downsides associated with incentives. Ongoing work by the IMF, OECD and WTO on incentives for the G20 adds to the negative policy advice on incentives. The World Bank's research and advisory work has long focused on the cost of incentives and on the redundancy of many schemes for attracting investment – with good reasons: many schemes have indeed been found to be inefficient and ineffective.

However, almost all the arguments against the use of incentives are based on the way incentives are granted or administered, not on incentives per se. Thus, investment authorities worldwide have continued to include incentives in their investment promotion toolbox, fully aware of the important role tax plays in investment decisions, and unwilling to renounce one of the few available tools that can help overcome specific locational disadvantages, or that can help steer investment to priority areas for growth and development.UNCTAD's advice on incentives, in its Investment Policy Framework and in its technical assistance work (Investment Policy Reviews) is (i) to ensure that incentives schemes are based on an overall sustainable development strategy and investment priorities, and (ii) to administer incentives in such a way as to minimize and mitigate the risks of inefficiency and ineffectiveness, as well as the risk of administrative improprieties.

Key to maximizing the strategic value of incentives is focusing schemes on priority activities for development and on underdeveloped regions, and associating them with sustainable development impacts. These may include economic impacts, such as employment generation, training and capacity building, and technology and know-how transfer; social impacts, such as better availability and accessibility of services, the advancement of disadvantaged groups in society, or food security; and environmental impacts, such as the reduction of emissions or the generation of renewable energy. Such a move away from location-based incentives schemes aimed purely at increasing the competitiveness of a location to schemes aimed at advancing sustainable development, and adherence to common-sense good practices for the administration of

incentives schemes go a long way towards ensuring consistency with WTO rules on subsidies. The WTO rules on subsidies and countervailing measures, and the gradual expiry of exceptions, have somewhat blunted the incentive tool for developing countries, making it less suitable as an instrument of industrial development (at least for export-oriented industrial development). But as an instrument for the promotion of sustainable development, and for the attraction of investment in the Sustainable Development Goals, their relevance will increase.

Culahovic (2000) in his work on foreign direct investments in South East Europe: Implementing Best Policy Practises he asserted that - There is a strong correlation between obstacles and FDI inflows. Elimination of obstacles is the potential for FDI growth. However, the obstacles can be much easier created and defended than removed. Current FDI practice in the Central and Eastern European (CEE) countries shows that the policy framework is important, but it is not a sufficient determinant for the FDI location. With the progress of liberalization, harmonization and globalization, policy framework becomes less important, while the policies for improvement of business environment and creation of friendly climate for FDI gain greater importance. Liberalization and globalization lead towards the creation of new regional markets and new FDI areas. What seems to become more critical in the coming years is a clear combination of local competitive advantages (including human resources, infrastructure, physical resources and market), created technological resources and innovative capacities, which can be offered by some country or region to the potential investors.

The use of tax incentives for promoting FDI was one of the major strategies andcomprehensive literature body has shown that the rule of law, stable and sound economic policies, supporting legislation and institutions and development of human capital and democracy rules were the key for FDI success. Tax incentives were useful only in cases when they were used carefully and when they were an integral part of the "package" of other sound policy measures and strategies. Literature reports a variety of tax effects on economic performance:

1. Taxation of capital income reduces the net rates of return to savings and may reduce private savings.
2. Taxation affects investment directly through its impact on the cost of capital. If marginal effective tax rates vary across sectors and activities (i.e. violation of the neutrality principle), investment efficiency is affected.
3. Labour taxes, in particular payroll taxes, have impact on labour supply and labour demand.
4. Tax systems vary significantly across and within countries. Tax systems are thus not neutral with respect to domestic resource allocation.
5. The extension of tax-financed public pension schemes may lead to a reduction in private savings.
6. Personal tax progressivity penalized investment in human capital.

Total tax effects on growth demonstrate a significant negative relationship between the level of the tax/GDP ratio (or the government expenditure ratio). Generally, high taxes reduce economic growth.

In the work of Cleeve (2009), he asserted that There are two main perspectives on fiscal incentives. First, supporters (e.g. Bora et al, 2002; Blomstrom & Kokko, 2003) argue that, under certain conditions, they increase investment, create jobs and other socio-economic benefits. Second, opponents (e.g. Halvorsen, 1995; Wilson, 1996; Osman, 2000; Well et al, 2001) believe that fiscal incentives may not be the first-best mechanism for attracting FDI and the costs of incentives to attract FDI outweigh the benefits. They believe that incentives may exacerbate problems like governance and corruption and it would be better to improve the local infrastructure and stabilise the macro-economy.

Many less Developed Countries (LDC) including SSA countries have provided investment incentives to entice foreign MNEs to locate in their economies but have achieved little success in generating the expected investment flows. This experience over a number of years suggests that fiscal incentives have not been effective in countering factors that work against locating in the SSA region, such as poor physical (roads, transport and communication) and institutional infrastructures and macroeconomic instability. LDCs' governments use several types of fiscal incentives that impact on the effective tax rates and the location decisions of MNEs. Much focus has been put on instruments that are connected to corporation income tax, such as tax holidays and tax allowances, instruments that are only helpful to profitable companies. Custom duties and

local indirect tax exemptions also exist in many countries. Grants are used mainly in advanced industrial countries because they are too expensive for, and hence rarely used by, less developed countries (LDCs).

According to Morrisset and Pirnia (2001), of the foreign investment advisory service (FIAS), World Bank, the most popular form of incentives for several SSA countries has been tax holidays or temporary rebates, which provide large benefits as soon as the company begins to earn income. These primarily benefit short-term investments, in footloose industries (such as banking, insurance, internet and general services) that can quit one jurisdiction quickly for another. Tax holidays also tend to benefit investment in new companies rather than those in existing companies and discriminate against long-term investments. Finally and significantly for many SSA countries, they often lead to a large erosion of the tax base as corporate taxpayers avoid taxation of income from other sources. Morisset and Pirnia (2001), claim that when taxpayers have a choice, they can shift income into companies that are enjoying the tax holidays and make more deductible expenditures in other companies they own, that must pay taxes, thus operating a kind of "transfer pricing" system. Furthermore, the taxpaying company may incur interest costs on debt financing, while the tax holiday company enjoys equity financing. In short, the tax holiday company could hold debt in the non-tax holiday company.

According to the Central Bank of Nigeria (2013), fiscal incentives are of various forms essentially divided into tax incentives and non-tax benefits. The apex body in Nigeria sited further that Overall, empirical evidence showed that the size of the market and the market are

potentially proxied by the level of GDP and that the GDP growth rate has affected FDI inflows rather than fiscal provisions. OECD (1995) concluded that on balance, fiscal incentives are not likely to affect significantly the decision of investors to undertake FDI. Contrariwise, Nishat and Anjum (1998), found a positive relationship between FDI and fiscal incentives offered by the host countries. The theoretical model used Cobb Douglas production function, based on two choices, which are the minimization of total cost condition and the efficient combination of inputs. The regression result confirmed that a highly significant coefficient of the cost of capital tariff and infrastructure suggest an effective role of the government in particular and fiscal provisions in promoting investment in the host country.

Further econometric evidence also suggests that tax incentives may have boosted FDI, but with no effect on total investment. Klemm and Van-Parys (2009) use a set of African, Caribbean and Latin American Countries to test for tax competition in tax incentives and to explore the effects of tax incentives on FDI and total investment. They found that FDI increases with tax incentives when tax holidays are offered. However, there is no strong effect on total gross fixed capital formation or economic growth, suggesting that FDI crowds-out other investments. Other empirical analysis from several authors indicated mixed but related results. DeMooij and Ederveen (2003) found that investments in developed countries respond strongly to incentives. This implied that investment incentives are likely to work in developed countries rather than in the developing nations. Klemm (2009) found that investments, which responded significantly to incentives in some developing countries, had a smaller elasticity of less than one compared to

those in developed countries with larger elasticity coefficient. It, thus, shows that incentives have smaller impact on investment in developing countries.

Within the subnational government, a number of state and local governments make use of economic development incentives to stimulate job creation and business growth processes in their jurisdictions. The widespread use of incentives has generated interest in the effect that fiscal incentives enhance employment growth. However, the empirical evidence on the effects of incentives on the growth of establishments was measured in terms of actual employment change that occurred during the period in question. Carlton (1983) found that the number of economic development incentives offered by a state does not affect the location and employment decisions of new firms though the effects of incentives were measured using a business climate index that includes non-incentive factors. Walker and Greenstreet (1991) in their studies found that economic development incentives have a positive effect on firm location decisions, although incentive programs do not affect the growth of existing businesses. The findings of Todd andKraybill(2002), revealed that incentives have a substantial positive effect on announced employment growth. The findings further show that establishments that received incentives usually overestimate their announced employment targets more than establishments that did not receive incentives.

In other empirical findings, Wellsand Allen (2002) posited that export-oriented investments are more sensitive to tax incentives. The result of the empirical findings asserts that targeted incentives seem to be a more cost-effective way of promoting investments. However, the

findings of Hassett and Hubbard (2002) showed that investment incentives create significant distortions by encouraging inefficient investments. Therefore, in the course of implementing fiscal incentives, significant attention must be paid to the efficiency costs of investment incentives as it could lead to a low economic growth. McLure (as cited in Smith, 1990) found that low inflation remains the best investment incentives because a good macroeconomic environment contributes better to economic growth than investment incentives. Generally, the author suggests that the best incentives for attracting investment include stable macroeconomic policy stance and general security of the investment, among others. Alongside, the cost of initiating the incentives in terms of revenue losses must not be greater than the benefit derivable.

Overall, Bernstein and Shah (1995) concluded that selective tax incentives such as investment credits, investment allowances and accelerated depreciation were more cost-effective for the fiscal authority in promoting investment than selected CIT rates' reductions. In general, tax incentives lead to revenue losses, create loopholes for tax avoidance and further erode the tax base, complicate tax administration and make revenue collection less efficient. In addition, it causes distortions in resource allocation, impairs transparency and accountability, and rarely delivers favorable results in the short to long run horizon.

In South Africa, its Government mapped out its macroeconomic policy strategy under the Growth Employment and Redistribution (GEAR) document published in 1996. The GEAR proposed a wide range of policy reforms, the most important of which were gradual trade liberalization, deregulation of capital control, deficit reduction and stabilization of the exchange

rate. Within this broad orthodox approach, the GEAR also included specific reference to the need for incentives to stimulate 'labor- intensive manufacturing investment' as there is a good case for subsidizing this sector in South Africa.

Following the GEAR, the government has adopted a cautious and well- informed approach on incentives, offering both up-front grant and tax relief incentives. There are also a number of parastatal lending institutions offering loans at sub commercial rates. The balance to spend is heavily skewed towards off-budget tax incentives and subsidized finance rather than on- budget grants. Since 1994, two ineffectual schemes - the General Export Incentive Scheme and the Tax Holiday Scheme – have been phased out and two significant new incentives targeted at the manufacturing sector – the Motor Industry Development Programme (MIDP) and the Strategic Investment Programme (SIP) – introduced in their place. The processes and procedures surrounding the implementation and execution of these two schemes were in line with international best practice based on international experience.

2.1.5 **Global Trend in Allocation of Foreign Direct Investments – Evidence from Sub-Saharan Africa**

IMF (2003) report shows that with the integration of international capital markets, global FDI flows grew strongly in the 1990s at rates well above those of global economic growth or global trade. Recorded global inflows grew by an average of 13 percent a year during 1990-1997.Driven by large cross-border mergers and acquisitions (MandA), these inflows increased by an average of nearly 50 percent a year during 1998–2000, reaching a record US$1.5 trillion in

2000.(See Table 1.) Inflows declined to US$729 billion in 2001, mostly as a result of the sharp drop in cross-border merger and acquisition among the industrial countries, coinciding with the correction in world equity markets. Worldwide, the value of cross-border MandA declined from the record US$1.1 trillion in 2000 to about US$600 billion in 2001.

The industrial countries have long dominated the FDI inflows and outflows and accounted for 94 percent of outflows and over 70 percent of inflows in 2001. Inflows of FDI to developing countries grew by an average of 23 percent a year during 1990- 2000. In 2001, these inflows declined by 13 percent to US$215 billion, largely reflecting reduced inflows into Hong Kong Special Administrative Region (SAR), Brazil, and Argentina. Excluding these three economies, FDI inflows into developing countries increased by about 18 percent in 2001. During 1998–2001, FDI inflows to developing countries averaged US$225 billion a year. In the same period, portfolio investment and other investment inflows to developing countries were much lower and in aggregate averaged US$22 billion a year.

Table 1 **Regional Allocation of Foreign Direct Investments inflows, 1990 – 2001(Billions of US Dollar)**

	1990-94 (Average)	1995	1996	1997	1998	1999	2000	2001
Total	197.7	327.9	372.9	461.4	690.4	1076.0	1489.8	729.2
Industrial Country	137.7	205.5	226.4	272.3	486.5	844.8	1241.5	513.8
Developing Country	59.9	122.4	146.5	189.1	203.9	231.8	248.3	215.4
Africa	2.7	5.0	5.3	9.8	7.5	9.7	7.5	17.7
Asia	33.5	66.3	74.4	82.8	87.0	99.9	128.2	91.4
China P.R	16.1	35.8	40.2	44.2	43.8	38.8	38.4	44.2
Hong Kong SAR	NA	NA	NA	NA	14.8	24.6	61.9	22.8
Europe	4.4	17.4	16.7	22.3	26.6	29.3	30.1	31.2
Middle East	3.6	3.2	5.8	8.0	9.3	4.9	6.5	5.7
Western Hemisphere	15.7	30.5	44.4	66.2	73.5	88.0	76.0	69.5
Argentina	3.0	5.6	6.9	9.2	7.3	24.0	11.7	3.2
Brazil	1.7	4.9	11.2	19.7	31.9	28.6	32.8	22.6
Mexico	5.4	9.5	9.2	12.8	11.9	12.5	14.2	24.7

Source: International Monetary Fund Statistics 2001

Table 2Regional Allocation of Foreign Direct Investments inflows, 2002 – 2015, (Billions of US Dollar)

	2002-2008 (Average)	2009	2010	2011	2012	2013	2014	2015
World Economy	1,818.834	1,221.84	1,422.25	1,700.08	1,330.27	1,451.965	1,277.0	1,762.0
Industrial Country	1,032.385	618.596	703.474	880.406	516.664	565.626	165.00	429.00
Developing Country	308	475	661	725	729	778	698.00	765.00
Africa	59.276	56.043	47.034	48.021	55.180	57.239	58.00	54.00
Asia	396.025	323.683	409.021	430.622	415.106	426.355	468.00	541.00
China P.R	108.312	95.000	114.734	123.985	121.080	123.911	41.02	50.04
Hong Kong SAR	67.035	54.274	82.708	96.125	74.888	76.633	43.22	42.43
Europe	577.952	408.924	436.303	538.877	244.090	250.799	306.00	504.00
Middle East	6.7	7.2	8.1	8.6	9.9	11.5	13.0	14.8
Western Hemisphere	56.2	65.9	71.0	74.33	79.11	85.01	56.11	35.01
Argentina	9.726	4.017	11.333	10.720	12.116	9.082	11.079	14.106
Brazil	45.058	25.949	48.506	66.660	65.272	64.045	95.049	109.22
Mexico	28.313	17.331	23.353	23.354	17.628	38.286	63.872	44.673

Source: International Monetary Fund Statistics 2016 (UNCATD)

External Direct Investment Statistics of Hong Kong 2016

During the 1998–2015 period, of the US$900 billion of FDI inflows to developing countries, Asia accounted for US$407 billion, followed by the Western Hemisphere (US$307 billion). Cross-border Merger and Acquisition was an important contributor to these inflows, reflecting the privatization of state-owned assets, especially in Latin America, and the purchase of distressed banking and corporate assets in several Asian economies in the wake of the 1997 financial crisis. Within Asia, the two largest recipients of FDI inflows during this four-year period were China P.R. (US$165 billion) and Hong Kong SAR (US$124 billion). The investment inflows to the Western Hemisphere were dominated by Brazil (US$116 billion) and Mexico (US$63 billion).

IMF (2003), further revealed that while FDI flows predominantly comprise equity capital, US$1 trillion of cumulative FDI inflows in the form of intercompany debt (e.g., trade credits, loans, advances) were recorded during 1998–2001, most of which went to industrial countries. During the same period, cumulative FDI equity inflows—comprising equity capital and reinvested earnings—were close to US$3 trillion.The book value of the estimated global stock of inward FDI totaled US$6.8 trillion at end 2001. Four countries, the United States, the United Kingdom, France, and Germany were the largest recipients of inward FDI capital. About one third of the global stock of inward FDI represented investment in developing economies, with five economies— China P.R., Argentina, Brazil, Hong Kong SAR, and Mexico—accounting for more than half of the inward FDI stock of developing economies. The estimated global stock of outward FDI valued at book value totaled US$6.6 trillion at end 2001. The largest investing countries were the United States, the United Kingdom, France, and Germany, which accounted for half of the global stock of FDI assets while only 12 percent (US$800 billion) of the world stock of outward FDI represented FDI investment from developing economies.

According to United Nations Conference on Trade and Development (UNCTAD, 2013), FDI inflows to Africa rose for the second year running, up 5 per cent to $50 billion, making it one of the few regions that registered year-on-year growth in 2012. FDI outflows from Africa almost tripled in 2012, to $14 billion. In terms of FDI stock, Malaysia, South Africa, China and India (in that order) are the largest developing-country investors in Africa. FDI inflows in 2012 were driven partly by investments in the extractive sector in countries such as the Democratic

Republic of the Congo, Mauritania, Mozambique and Uganda. At the same time, there was an increase in FDI in consumer-oriented manufacturing and services, reflecting demographic changes. Between 2008 and 2012, the share of such industries in the value of Greenfield investment projects grew from 7 per cent to 23 per cent of the total.

Leading global agencies and organization are still apprehensive about, like the United-Nation Conference on Trade and Development (UNCTAD) projected that Global FDI flows could rise to $1.6 trillion in 2014 from $1.45 trillion in 2013, and further to $1.75 trillion (2015) and $1.85 trillion by 2016. The main contributors would be the "investments in developed countries", which are expected to recover in second half of 2014. As against this,the emerging markets and developed economies are expected to witness major upturn in FDI inflows due to slower recoveries and policy uncertainties (UNCTAD, 2014).

The world Investment Report (UNCTAD, 2015), highlighted that Global foreign direct investment (FDI) inflows fell by 16 per cent in 2014 to $1.23 trillion, down from $1.47 trillion in 2013.(See table 2) The decline in FDI flows was influenced mainly by the fragility of the global economy, policy uncertainty for investors and elevated geopolitical risks. New investments were also offset by some large divestments. The decline in FDI flows was in contrast to growth in GDP, trade, gross fixed capital formation and employment.UNCTAD forecasts an upturn in FDI flows to $1.4 trillion in 2015 and beyond ($1.5 trillion in 2016 and $1.7 trillion in 2017) due to growth prospects in the United States, the demand-stimulating effects of lower oil prices and accommodating monetary policy, and continued investment liberalization and promotion measures. Forecasts for macroeconomic fundamentals and continued high levels of profitability

and cash reserves among multinational enterprises (MNEs) support the expectation of higher FDI flows. However, a number of economic and political risks, including ongoing uncertainties in the Eurozone, potential spillovers from geopolitical tensions, and persistent vulnerabilities in emerging economies, may disrupt the projected recovery.

Table 3: Top 10 FDI receiving countries in sub-Saharan Africa (2006 - 2010)

FDI Inflow	2006 ($'m)	2007 ($'m)	2008 ($'m)	2009 ($'m)	2010 ($'m)
Nigeria	4,854.42	6,034.97	8,196.61	8,554.84	6,026.23
Mozambique	1,969	3,650	4,870	5,010	3,344
South Africa	623.29	6,586.79	9,885.00	7,624.49	3,693.27
Congo, Dem. Repu	1,687	2,312	2,050	2,505	2,925
Ghana	1,222	2,295	2,256	2,377	2,626
Congo Republic	2,065	2,002	1,910	2,009	2,093
Kenya	50.67	729.04	95.95	116.26	178.06
Sudan	1,809	1,980	2,040	2,124	2,440
Equatorial Guinea	1,750	1,509	1,684	1,790	1,900
Togo	324	194	851	915	804
Uganda	890	970.00	1,007	1,107.00	926.10

Source: Data from the African Development Bank (2016); World Bank data (2016)

Table 4: Top 10 FDI receiving countries in sub-Saharan Africa (2011 - 2015)

FDI Inflow	2011 ($'m)	2012 ($'m)	2013 ($'m)	2014 ($'m)	2015 ($'m)
Nigeria	8,915	7,127	5,609	4,655.85	4,056.85
Mozambique	2,663	5,629	5,935	6,101	6,344
South Africa	4,243	4,559	8,188	5,740.65	5,021.20
Congo, Dem. Repu	1,687	3,312	2,098	2,703	3,214
Ghana	3,222	3,293	3,226	3,346	3,522
Congo Republic	3,055.95	2,757.93	2,038	2,709	3,099.13
Kenya	335	259	514	944.33	1,444.50
Sudan	2,692	2,488	3,094	3,122	3,431
Equatorial Guinea	1,975	2,015	1,914	2,066	2,189
Togo	728	94	84	91	95
Uganda	1,229.38	1,706.00	1,146	1,147.00	1,206.10

Source: Data from the African Development Bank (2016); World Bank data (2016)

The sector, most FDI in sub-Saharan Africa is invested in, is the natural resource industry in 2015. This can particularly be seen with the rising investments in the newly explored oil and gas field in East African countries as Tanzania and Mozambique. However, mining is also a main part of this sector. Another sector FDI inflows are rising within the last years, is the service industry within retail and finance branch as well as the transportation and telecommunication branch. Especially China is investing largely within the telecommunication sector in sub-Saharan Africa, lately. Investments in this sector are driven by a growing middle-income population throughout sub-Saharan Africa and it's rising incomes. The main type of FDI conducted in sub-Saharan Africa is greenfield investment with a compound annual growth rate of 22.3% within the period of 2007-2012, regarding the amount of projects. Main recipients of new greenfield projects have been Ghana and Nigeria followed by Kenya and Tanzania. Latest growth rates in Merger and Acquisition deals within sub-Saharan Africa have been, measured by value, even higher with 80% growth in 2013 regarding 2012 and recorded US$23.5 billion. Since 2008 net FDI inflows to sub-Saharan Africa has been volatile with year-on-year up- and downturns is was due to the impact of the Global Financial crisis that took effect from 2007/2008.Forecasted by the World Bank Group, when FDI inflows to sub-Saharan Africa will decrease again with US$2 billion in 2014. However, the continents region might achieve a new stage of momentum from 2016 (US$47.8 billion). Caused inter alia by the economic crisis in the European Union and risks growing, investments towards generally more risky countries, as the African or Asian countries, became more interesting for direct investors in 2012. As seen by increasing capital flows, Africa with its high return rates received a lot of attention lately.

Compared with other developing regions, as Asia (12% on return) and Latin America (15% on return), Africa has the highest return rate on average (20%) which makes it more interesting than other developing areas. Within sub-Saharan as well as overall Africa most projects of FDI were realized in Mozambique in 2013. During the last year, the country counted approximately 40% of all African Mergers and Acquisitions. Most certainly, the rise of FDI towards Mozambique is due to the discovery of a huge amount of natural gas fields within the country and the correlated Merger and Acquisition's by Chinese as well as Indian companies. Mozambique is followed by the two major economies within the sub-Saharan Africa market, South Africa and Nigeria, who account for 25% respectively 16% of further Merger and Acquisition's. South Africa, with its pioneering role within sub- Saharan Africa is often used as an access country for the sub-Saharan African market.

2.1.6 **Stock Market Development**

Stock market is a market where buyers and sellers engage in trade of financial securities like bonds, stocks etc and undertaken by participants such as individuals and institutions (World Bank, 2007). The market channels surplus funds from savers to institutions (deficit areas) which then invest them into productive use. This market provides long term finance for real sector developments (Desai, Foley & Hines, 2006). The primary function of stock markets is to serve as a mechanism for transforming savings into financing for the real sector. According to El-Wassal (2013), he noted thatfrom a theoretical perspective, stock markets can accelerate economic growth by

mobilizing and boosting domestic savings and improving the quantity and quality of investment. Better savings mobilization may increase the rate of saving and if stock markets allocate savings to investment projects yielding higher returns, the increasing rate of return to savers will make savings more attractive. Consequently, more savings will be channeled into the corporate sector. Efficient stock markets make corporations compete on an equal basis for funds and help make investment more efficient.

The commonly used measures to assess stock market development are stock market size and stock market liquidity indicators (El-Wassal, 2013). The knowledge of the dimensions of stock market development will enable appropriate policies, measures and actions to be formulated and activated to assist stock markets to "develop" and also to diagnosis existing weaknesses. Primarily, it is important to state that growth and development are not the same thing. For a stock market to grow means that it increases in size or liquidity. To develop implies increasing or improving a stock market's ability to satisfy an economy's needs as stipulated among the main functions of stock markets.

2.1.7 **Stock Market Development Measurement Variables**

Stock market development may be captured using the following indicators: i) stock market size; ii) stock market liquidity; iii) stock market performance/volatility; iv) stock market concentration; and v) stock market linkage to real sector performance (World Bank, 2015; El-Wassal, 2013; Levine & Zervos, 1998). The adoption of a variety of indicators could provide a more accurate depiction of stock market development.

i) Stock Market Size

There are two main indicators of stock market size: market capitalization and the number of listed companies.

a) Market Capitalization Ratio – This measures the value of listed shares divided by Gross Domestic Product (GDP). The assumption behind this variable is that capital market size is positively correlated with the ability to mobilize Capital (FDI, savings etc) and diversify risk on an economy-wide basis. Levine and Zervos (1998), found a positive and significant relationship between stock market development and long-run growth.

b) The Number of Listed Shares - The number of listed shares is used as a complementary measure of stock market size. The main importance of this measure is that it is a proxy for the breadth of the stock market and is not subject to stock market fluctuations (Bekaert et al, 2001; Rajan & Zingales, 2003; and Karolyi,2004). Moreover, it is not tainted by possible mis-measurement of GDP, which often happens in many developing countries.

c) The All Share Index – This is a series of numbers which shows the changing average value of the share prices of all companies in a stock exchange, and which is used as a measure of how well a market is performing. An index is a calculated average of selected share prices, representing a particular market or sector. It is a basket of shares that provides a broad sample of an industry, sector or economy. The collective performance of these shares gives a good indication of trends in the overall market

they represent. It enables investors to track changes in the value of a general stock market, indices also provides a useful benchmark to measure the success of investment vehicles such as mutual funds, savings, foreign direct investments etc

ii) Stock Market Liquidity

Sarr and Lybek (2002), observed that one of the most important aspects of stock market development is liquidity. Liquid marketsoffer a number of benefits: i) they render financialassets more attractive to investors, who can transactin them more easily. In addition, liquid markets allow investors to switch out of equity if they want tochange the composition of their portfolio; ii) liquid markets permit financial institutions to acceptlarger asset-liability mismatches; iii) they allow companies to have permanent access to capitalthrough equity issues; and iv) liquid markets allow a central bank to use indirect monetary instrumentsand generally contribute to a more stable monetary transmission mechanism.

Analysts generally use the term Liquidity to refer to the ability to easily buy and sell securities. Thereare five dimensions of market liquidity, which are: tightness, immediacy, depth, breadth andresiliency. Tightness refers to low transaction costs, such as the difference between buy and sell prices.Immediacy represents the speed with which orders can be executed and settled, and thus reflectsamong other things, the efficiency of the trading, clearing and settlement systems. Depth refers to theexistence of abundant orders, either actual or easily uncovered of potential buyers and sellers, bothabove and below the price at which a security would be trading on the market. Breadth means

thatorders are both numerous and large in value with minimal impact on prices, and resiliency usuallydenotes the speed with which price fluctuations resulting from trades are dissipated (Sarr & Lybek,2002). A sound measure of liquidity will account for the cost associated with trading including the time cost and the uncertainty of finding a counterpart and finalizing the transaction. The most commonly used liquidity indicators include;

a) Total Value of Shares Traded Ratio (TVSTR) – This measures the total value of shares traded on the stock exchange divided by the Gross Domestic Product (GDP). The total value of stock traded ratio measures the organised trading of firm's equity as a share of national output and therefore should positively correlate with liquidity on an economy-wide basis. The total value of shares traded ratio complements the market capitalization ratio; although a market may be large but with little trading (Levine & Zervos, 1998).
b) Market Turnover Ratio (MTR) – This is the total value of shares traded divided by market capitalization and variable measures how liquid a market is. This ratio also complements the market capitalization ratio (Levine & Zervos, 1998). A large but inactive market will have a large market capitalization ratio but a small turnover ratio. Turnover also complements the total value of stock traded ratio. While, the total value traded ratio captures trading relative to the size of the economy, turnover measures trading relative to the size of the stock market. There is thus a positive correlation

between capital inflow (savings, FDI etc) and market turnover or liquidity (World Bank, 2015)

Other measures of stock market development in use by analysts include;

iii) Stock Market Concentration

Market concentration may bemeasured by looking at the share of market capitalization accounted for by the large companies in themarket. These large companies are seen by some analysts as being the leading three to five companiesin the market (Maunder, Myers, Wall & Miller, 1991). Another indicator in use in measuring the degree of stockmarket concentration is the share of market capitalization accounted for by the ten largest stocks (e.g.International Finance Corporation, SandP).Concentration adversely affects market development as it hampers market breadth by theconcentration of capitalization within a handful of large companies, limiting the range of attractiveinvestment opportunities and thus adversely affecting liquidity in the stock market in question.

iv) Stock Markets and Economic Activity

According to El-Wassal (2013), The relationship between stock prices and real economic activity is circular. Stock prices depend on a company's performance and its growth prospects so that to the degree that acompany's performance improves and the rate of return increases, stock prices rise in turn while on the other hand, stock prices should reflect the present discounted value of expected future dividends orexpected

future growth. From this perspective, stock prices serve as a leading indicator of futurechanges in real economic activity. Specifically, there are three main channels through which stock prices canaffect real economic activity, namely : i) the wealth effect: under the life cycle/permanent income, higher stockprices and increased wealth in stocks lead investors to increase their consumption. This increase inconsumption will be more significant in countries where the stock ownership base is large; ii) cost ofcapital: with stock prices increasing, the cost of new capital relative to existing capital decreases, morecompanies go public and raise funds for investment through public offerings. In addition, a goodperformance on the stock market might attract foreign capital, which would allow interest rates to godown (ceteris paribus); and iii) the confidence effect/expectation effect: a highly performing stockmarket might improve overall expectations, which might induce economic growth through moreinvestment as part of a positive feedback effect. Moreover, stock prices signal faster growth ofcompanies and as a result a possible growth of future real individuals' income might also induce moreconsumption (Morck, Shleifer & Vishny, 1990).Although these factors/channels are hard to quantify, it is importantto accurately assess the strength of the link between stock markets and real economic activity.

World Bank Economic Review (2015) suggests a bi-directional causality between foreign direct investment and stock market movements, but the direction of the relation varies in different time frames. In the short run, positive trends in stock markets can serve as an indicator of the vitality of the market, favourable investment climate and the

country's openness to foreign investment. Therefore, movements in stock markets directly affect the amount of FDI in the short run. In the long run, however, the direction of causality is reversed. Namely, if FDI encourages rapid technological progress and economic growth through the transfer of know-how and technology, then it indirectly affects the growth of stock markets as well.

v). Stock Market Volatility

Stock prices are supposed to serve as signals for resource allocation. Yet, excessive volatilitywhich does not reflect economic fundamentals would distort the "signaling" function of stock markets.Although it is theoretically difficult to identify a clear criterion for defining the degree of"excessiveness", many analysts argue that less volatility reflects greater stock market development.However, a certain degree of stock market volatility is unavoidable, even desirable, as stock pricemovements indicate changing values across economic activities so resources can be better allocated.There are significant implications surrounding stock market volatility, given that it affectsincentives to save and to invest. Theoretically, all other things being equal, the more volatile the stockmarket, the fewer savers will save and hence the less investment there will be. Excessive stock marketvolatility would lead investors to demand a higher risk premium, increasing the cost of capital whichin turn would impede investment and hamper economic growth. In addition, this volatility might leadto a shift of funds to less risky

assets which –once again – will cause companies to pay more for accessto capital. (Zuliu,1995; Levine & Zervos, 1996).

El-Wassal (2013) posited that there are four broad factors which influence the development of stock markets: supply factors, demand factors, institutional factors, and economic policies. The supply and demand factors may beconsidered as the "building blocks" of any market but their mere presence does not guarantee that the marketwill function efficiently. The prosperity of such a market requires the existence of "supporting blocks", which include economic policy factors conducive to investment and an adequate institutional factor. If the supporting blocks are inadequate,the market may exist, but most likely it will not function well and will not become a developed market.

a) Supply Factors

Supply factors are factors associated with the issue of shares on the stock exchange to obtain long term finance for the companies. These supply factors include;

i) Stage of Economic Development

Economic development is expected to positively affect stock markets. Underdeveloped economies most often have a volatile investment environment, weak institutional and legal frameworks, poor governance, lack of transparency, and above all low levels of per capita income. The above factors impede stock market development and in some cases make the establishment of a stock market a serious waste.

(ii) Size of the Economy

Economy that is large enough to support a stock market is a necessary prerequisite for thedevelopment of a stock market. Without a sufficient supply of shares, trading will be limited and themarket may not be economically viable. A small size economy most likely would not have a deep,liquid stock market as such economies are usually characterized by price volatility. In addition, it maybe that small economies do not have deep stock markets since they lack efficiency of scale.

(iii)The Structure of the Economy

The structure of the economy – the relative proportion of shares representing the primary,industrial and service sectors – is an influential determinant of stock market development. In addition, whether the industrial base is dominated by large companies or dominated by small and medium-sized companies has significant implications for the supply of equity (Roc, 1996).

(iv)Prospects for Economic Growth

The literature on initial public offerings (IPOs) emphasizes the importance of growthopportunities in explaining capital-raising behavior. Companies usually increase investment andexpand productive capacity to meet future expected demand for their products.

b) Demand for Shares

The demand for equity (investors) is the second building block of the stock market. Potential shareholders/investors have preferences over risk-return combinations for the funds they invest in – some prefer high risk-high return combinations, while others prefer

low risk-low return. In general, these investors have three main concerns; i)equity is one of the most risky investmentalternatives, investors invariably expect a higher return. ii) investors need to monitor theutilization of their funds and require a regular or periodic disclosure of information that enables them to make sure that themanagement runs the firm in a way that maximizes their returns on investments. iii) investors arealways keen to be able to liquidate their investments (shares) at any point in time. Also, investors will be willing tohold shares with a higher expected return in a liquid and informative stock market.

The following factors significantly affect the demand for shares and indirectly stock market development:

i) Economic Growth and a Sufficient Level of per capita GDP

Economic growth and per capita GDP are crucial –and strongly linked – determinants of stockmarket development. Higher economic growth rates allow more people to invest in shares. A rise inper capita income increases an individual's ability to save or invest. However, the increase in percapita income should be considered with caution, for individuals will only invest after satisfying theirbasic needs. That is to say that a sizeable per capita increase in income – if realized from a low base –will be largely directed toward more consumption, and thus will not significantly increase investment,if it does so at all (Roc, 1996).

(ii) Investor Base and Institutional Investors

El-Wassal (2013), observed that stock market development needs a deep and diverse investor base. The lack of a diversifiedinvestor base and heavy reliance on captive sources of funding are two of the main factors behind theshallowness and insufficient liquidity of stock markets. The investor base should be diversified andcomposed of institutional investors (e.g. foreign investors, mutual funds, pension funds and insurance companies) andother financial institutions dealing in different levels of risk and targeting different economic sectors.These institutional investors can play a crucial role in the accumulation of funds and their channelinginto stock markets. Institutional investors are, in fact, usually the largest investors in stock markets indeveloped economies.

(iii) Foreign Direct andPortfolio Capital Flows

Foreign participation in stock markets enhances domestic demand for shares. In addition, thelong-term impact of foreign capital inflows on the development of stock markets is broader than thebenefits from initial flows and increased investor participation, since foreign investment is usuallyassociated with institutional and regulatory reforms, adequate disclosure and listing requirements andfair trading practices. Improvements in informational and operational efficiency are expected toinspire greater confidence in domestic markets (Errunza, 1983).

c) Institutional Factors

Institutional factors are the initial supporting block of stock market development. Theseinclude a wide range of factors such as regulations affecting public issuers of

securities, marketintermediaries, asset management, supervision and enforcement tools, trading payments andsettlement systems and corporate governance and transparency. An adequate institutional frameworkis expected to have a significant positive impact on the development of a stock market. On the onehand, investors will feel more confident regarding property rights and information transparency, whichcould encourage them to invest in stock markets. On the other hand, by reducing the cost oftransactions and increasing market liquidity, equity would be a more attractive source of financing forfirms (El-Wassal, 2013). In stock market development, institutional factors may be classified into three groups: the legal and regulatory framework, market infrastructure and "other" factors.

i) Regulatory and Legal Framework

A sound and sufficient regulatory framework is crucial to the development of stock markets. A strongand transparent regulatory and legal framework needs to be developed for public issuers of securities,market intermediaries, asset management products, payment and settlement processes andtransparency requirements. Regulations need to address asymmetries of information between issuersand investors, clients and financial intermediaries and between counterparties to transactions; andshould ensure smooth functioning of trading and clearing as well as settlement mechanisms that willprevent market disruption and foster investor confidence (Carvajal & Elliott, 2007).

The main purpose of regulating market intermediaries is to ensure that brokers, dealers, andfinancial analysts enter and exit the market without disruption, conduct their

business with their clientswith due care, and conduct fair trade using stock markets. Tools for regulating intermediaries includelicensing requirements and market business conduct obligations (Carvajal & Elliott, 2007). It is important to mention that excessive regulation can stifle stock market development andinprinciple, stock markets should not be over-regulated in areas where free market forces are prevalent and should not be under-regulated where a normal regulatory framework should be in placeto support market confidence.

ia) Shareholder Protection

The fact that shares are transferable obligations and represent contractual relationships makesthem highly sensitive to all aspects of the legal rights involving transactions. Investors need to beprotected against stock manipulation and improper practices by insiders (e.g. management and majorshareholders). In addition, adequate standards of professional conduct by brokers, underwriters and accountants must be established to avoid excessive speculation caused by rumors circulating about themarket. stock market development is more likely incountries with strong shareholder protection because investors do not fear expropriation.

ib)Corporate Governance and Transparency

In general, corporate governance refers to the structure, rules and institutions that determinethe extent to which managers' act in the best interest of shareholders (Claessens, Klingebiel & Schmukler, 2007).Corporategovernance entails the adoption and implementation of well-developed securities and bankruptcy laws,credible

accounting and auditing standards, and enhanced regulation and supervision as well asstronger enforcement of private contracts. Strong corporate governance and financial transparency arecritical for the development of stock markets due to the fact that they enhance investor confidence andincrease equity investment.

(ii) Market Infrastructure

The provision of a robust financial infrastructure for trading, clearing and settlement oftransactions is generally considered to be a public good (IMF, 2003). The absence of a sound andefficient market infrastructure linking the counterparties in securities transactions makes thedevelopment of stock markets unlikely. An inefficient securities settlement structure is a fundamentalimpediment to stock market development as it raises settlement and operator risk, increases transactioncosts, hinders price discovery and may restrict the range of participants in the market (Árvai &Heenan, 2008). The government may play a crucial role in providing the infrastructure needed tofacilitate the flow of information along with the price discovery process to support the development ofstock markets that are both competitive and efficient. There are various types of infrastructure thatgovernments need to build. These would include the following elements: a modern payment systemfor clearing and settling securities transactions, retail payments and large value payments as well as aphysical infrastructure for the operation of primary and secondary markets.

iia) Dealers and Brokers (Intermediaries)

One of the most important elements of the infrastructure required for stock market

development is the existence of experienced “dealers”. The activities of dealers and brokers makeequity significantly more attractive to investors and companies as they facilitate the exchange ofshares.Market conditions are critical in attracting dealers and brokers. Particularly, three conditionsmust be satisfied. First, both supply and demand for shares should be sufficiently large: a largernumber of buyers and sellers means more opportunities for brokers and dealers to serve asintermediaries and make profits. As well, stock market regulations and rules must be conducive totrading. Thirdly, an efficient trading mechanism must be in place, a mechanism that supports aclearing and settlement system which reduces transaction costs (Chami, Fullenkamp & Sharma, 2009).

iib) Trading System

Stock markets can be differentiated by their trading systems. Trading systems vary in the waytransactions are handled, types of transactions made, types of information available to marketparticipants, and the process of matching orders to sell and buy (Glen, 1994). Electronic trading systems can increase liquidity and improve efficiency by reducing transaction costs and increasinginformation availability.

iic) Credit-Rating Agencies

Credit-Rating Agencies (CRAs) can provide valuable information to investors which enablethem to make informed investment decisions. However, CRAs need to be credible, independent, andable to obtain information if they are to function properly. Further, they also need to be profitable;otherwise, they will not survive (Árvai & Heenan, 2008).

(iii) Other Institutional Factors

iiia) Political Stability

Political instability negatively affects the development of stock markets. In countries withunsettled political conditions, there is little interest in investing in shares because equity is usually amedium-to long-term form of investment (Sudweeks, 1989). Political risks influence equityinvestment in two main ways. First, a fear of restrictions on the repatriation of funds and expropriationdiscourages investment. Second, political instability hampers economic growth because companiespostpone investments and attempt to move critical activities to more stable countries, a move which inturn dampens equity investment attractiveness (Roc, 1996).

iiib) Education and Public Awareness

Poor understanding of issues on the part of the public discourages potential investors fromparticipation in stock markets. Roc (1996) argues that the propensity to invest in shares rises with thelevel of education. That is, a higher level of education increases confidence in stock markets bycontributing to a higher level of knowledge concerning financial activities. Without an educated publicwhich understands the fundamental rules, benefits, and potential pitfalls of participating in financialinvestment, stock markets may not be able to develop. Further, an educated population can increasethe number of available professionals (e.g. financial analysts, accountants and regulatory analysts)necessary for the development of an institutional and regulatory framework.

iiic) Availability and Quality of Information

The availability and quality of information is essential for building investor confidence.Uncertainty resulting from limited or poor quality information may be a major disincentive toinvestment in stock markets. Four main factors may contribute to insufficient and/or poor qualityinformation: i) lack of standards governing tight and effective financial disclosure requirements; ii)inadequate or inactive accounting standards and lax auditing practices; iii) the absence of a competentstock broking industry, which limits available research on stocks and markets; and iv) the lack ofcompetition between firms. When demand for equities outstrips supply, companies are not obliged toprovide extensive information in order to place their shares (Roc, 1996).

iiid) Family Businesses

The costs of going public are considerable to family businesses as they generally value controland privacy. In other words, family businesses may be wary of allowing "outsiders", or non-familymembers into the management of the firm (Chami, Fullenkamp and Sharma, 2009). The dominance of family businesseson business community limits the supply of shares and consequently deters stock market development.

d) Economic Policies

A stable macroeconomic environment is crucial for the development of stock markets.Rational and predictable macroeconomic policies enhance investors' confidence in the market andcreate an environment conducive to investment decisions. In addition,

corporate profitability can beaffected by changes in monetary, fiscal, and exchange rate policies.

(i) Monetary Policies

Prudent monetary policies can facilitate stock market development. Rational management ofmonetary policies ensures greater confidence in the stability of the economy as macroeconomic volatility magnifies the asymmetric information problem. First, interest rates have a critical effect onthe desirability of shares in an individual's portfolio of assets. Investors are concerned with realreturns, not just nominal returns. Consequently, momentary policies should insure an attractive long term yield for equities compared to other domestic and foreign investment alternatives.Both domesticand foreign investors will be unwilling to invest in a stock market in which high levels of inflation are expected (Yartey & Adjasi, 2007). Second, the stability of the short-term interest rate increasesinvestor confidence in long-term securities, including equities, and promotes maturity transformationby financial intermediaries. Third, effective implementation of monetary policies ensures adequateliquidity to market makers which may reduce the volatility of stock markets. It is also worthmentioning that attracting foreign portfolio investment requires rational exchange rate policies.

(ii) Fiscal/Taxation Policies

Taxation policies have a great influence on investor participation in stock markets sinceInvestors are concerned with the after-tax real return on investment. Unequal taxation favoring otheralternative forms of investment such as bank deposits would shift

investor interest from investing inequities. In many countries, equities are subject to double and even triple taxation. First, there istaxation at the corporate level before the distribution of dividends. Second, there may be taxation atthe individual level and if returns on equities are taxed, there may be triple taxation. (Sudweeks, 1989)

(iii) Institutional Investors Policy

Institutional investors may play a determining role in stock market development. Yet, this rolein turn is significantly influenced by institutional investors' policies. For instance, limiting the possiblerange of financial assets for mutual funds, pension funds, and insurance companies to low-yieldgovernment securities or imposing a high percentage of government securities could be a majordeterrent to stock market development (Sudweeks, 1989). A reasonable and active level ofparticipation by institutional investors is of great importance for a stock market. It is also important tonote that a stock market without institutional investors is prone to greater risk from individualspeculators. However, a balance between the two goals is required.

(iv) Foreign Participation Policy

There is consensus on the important role played by foreign portfolio investment in stockmarkets. International assetpricing models suggest that the globalization of financial markets should lead to a reduction inthe cost of capital (Stulz, 1981; 1999). Stock market liberalization increases the pool of capitalavailable to local companies and broadens the investor base, which could lead to increased liquidity.It could as well improve the quantity and quality of information available to market participants. Inaddition, the

scrutiny of foreign investors and analysts may increase transparency and promote theadoption of better corporate governance practices as well as reducing agency problems (Stulz, 1999and Errunza, 2001). Hence, liberalization is expected to make our stock market deeper, stronger and more efficient.

2.1.8 **Foreign Direct Investment and National Security**

According to Drakos (2004), Terrorism like civil conflicts may cause spillover costs among neighbouring countries as a terrorist compaign in a neighbour dissuades capital inflows or a regional multiplier causes lost economic activity in the terrorism-ridden country to resonate throughout the region. In some cases, terrorism may impact specific industries like 9/11 did on airlines and tourism. The spate of insecurity in the Sub-Saharan African region have negatively affected the inflow of FDI into the region. National and regional security challenges ranges from innocent killings and wanton destructions of properties, Kidnapping of indigens and foreigners, Niger-Delta restiveness, bombing of government and corporate facilities leading to massive loss of lives and economic activities measured by GDP. In Nigeria for instance, the impact of riot and unrest, Kidnapping of foreigners aswell as local nationales, destruction and vandalization of oil pipelines and facilities within the Niger-Delta region, activities of the Boko Haram insurgents and the Fulani herdsmen in the Northern and Southern parts of Nigeria have serious negative consequence on FDI inflow into the country. Also, in South Africa, we have the Apartheid crisis aswell as Xenophobic attacks that have crippled the inflow of FDI into the country. Similarly, in

Kenya there are the activities of the Al Shabab militant group and other forms of insurgent activities that have scared away foreign investors.

Oriakhi and Osemwengie (2012) investigated the impact of National security on foreign direct investment inflow in Nigeria using ordinary least square regression, annual time series and ADF unit root method and variables used include – FDI, DSV (defence security vote) and GDP with a 5% level of significance covering 1980 – 2009. The study discovered that National Security proxied by DSV crowd out FDI in Nigeria. The findings further noted that because FDI is an important source of savings for developing countries and thus an engine of growth, the interplay between security and FDI is of paramount concern. The most important finding of the study is the negative impact of national security incidents on the inflow of FDI.

Kinyanjui (2014), investigated the impact of terrorism on foreign direct investment in Kenya using secondary data namely FDI (dependent variable) and terrorism (independent variable) measured by number of terrorist attacks in Kenya between the coverage period of 2010 – 2012 using multiple regression method. The study concludes that terrorism negatively affects FDI in Kenya.

Similarly, Adeyeye, Ayodele and Akinuli (2016), studied the impact of security expenditure on FDI in Nigeria using FDI, Expenditure on internal security, Expenditure on Defence and Inflation rate as variables covering from 1985 – 2012. The investigation revealed that expenditure on internal security bears the highest negative influence on FDI inflow,

implying that the current level of insecurity is basically an impediment to the inflow of FDI within the time frame examined. On the other hand, as expenditure on defence increased, FDI inflow also increased. This outcome is also consistent with the views of Levine and Zervos (1996) about long-run implication of national security on FDI.

In this study, we shall proxy the influence of National Security on FDI as NS and shall act as a dummy on foreign direct investments; periods of high insecurity shall be denoted with "1" (taken from 1995 upwards) while periods of low national security issues or relatively stable period shall be denoted as "0" and recognized as period prior to 1995.

2.1.9 **Foreign Direct Investment and Its Centrality in Stock Market Development**

A foreign direct investment (FDI) is a controlling ownership in a business enterprise in one country by an entity based in another country.Foreign direct investment is distinguished from portfolio foreign investment, a passive investment in the securities of another country such as public stocks and bonds, by the element of "control". According to the Financial Times definitions (2010),"Standard definitions of control use the internationally agreed 10 percent threshold of voting shares, but this is a grey area as often a smaller block of shares will give control in widely held companies. Moreover, control of technology, management, even crucial inputs can confer de facto control."

The origin of the investment does not impact the definition as an Foreign Direct Investments: the investment may be made either "inorganically" by buying a company in the target country or "organically" by expanding operations of an existing business in that country.

Eurostat (2015) maintained that Foreign Direct Investment (FDI) is the category of international investment that reflects the objective of obtaining a lasting interest by an investor in one economy in an enterprise resident in another economy. The lasting interest implies that a long term relationship exists between the investor and the enterprise, and that the investor has a significant influence on the way the enterprise is managed. Such an interest is formally deemed to exist when a direct investor owns 10% or more of the voting power on the board of directors (for an incorporated enterprise) or the equivalent (for an unincorporated enterprise).

FDI may be seen as an alternative economic strategy, adopted by those enterprises that invest to establish a new plant/office, or alternatively, purchase existing assets of a foreign enterprise. These enterprises seek to complement or substitute international trade, by producing (and often selling) goods and services in countries other than where the enterprise was first established.

There are two kinds of FDI: the creation of productive assets by foreigners, or the purchase of existing assets by foreigners (for example, through acquisitions, mergers, takeovers). FDI differs from portfolio investments because it is made with the purpose of having control, or an effective voice, in the management of the enterprise concerned and a lasting interest in the enterprise. Direct investment not only includes the initial acquisition of equity capital, but also subsequent capital transactions between the foreign investor and domestic and affiliated enterprises.

David, P. Barri, M and Ofei, K. (2014), opined that Foreign Direct Investment (FDI) in Africa has reached the highest level in a decade and is set to reach anestimated USD$80b that year. With ten of the world's fifteen fastest growing economies, it is no wonderthat Africa continues to attract considerable FDI inflows and this positive trend is expected to continue.

2.1.9.1**The Nigeria Stock Exchange Market**

The **Nigerian Stock Exchange** (**NSE**) was established in 1960 as the Lagos Stock Exchange. As of December 31, 2013, it has about 200 listed companies with a total market capitalization of about N12.88 trillion ($80.8 billion). All listings are included in the Nigerian Stock Exchange All Shares index(World Bank, 2014).

History: The Nigerian Stock Exchange was founded in 1960 as the Lagos Stock Exchange, on September 15, 1960, the stock exchange council was inaugurated. Operations began officially on August 25, 1961 with 19 securities listed for trading but informal operations had commenced earlier in June, 1961. Operations were initially conducted inside the Central Bank building with the exchange having four firms as market dealers: Inlaks, John Holt, C.T. Bowring and ICON (Investment Company of Nigeria) The volume for August, 1961, was about 80,500 pounds and it rose to about 250,000 pounds in September of the same year with the bulk of the investments in government securities. In December 1977 it became known as The Nigerian Stock Exchange, with branches established in some of the major commercial cities of the country.

Operations: The NSE is regulated by the Securities and Exchange Commission, which has the mandate of Surveillance over the exchange to forestall breaches of market rules and to deter and detect unfair manipulations and trading practices. The Exchange has an automatedtrading System. Data on listed companies' performances are published daily, weekly, monthly, quarterly and annually.The Nigerian Stock Exchange has been operating an Automated Trading System (ATS) since April 27, 1999, with dealers trading through a network of computers connected to a server. The ATS has facility for remote trading and surveillance. Consequently, many of the dealing members trade online from their offices in Lagos and from all the thirteen branches across the country. The Exchange is in the process of establishing more branches for online real time trading. Trading on The Exchange starts at 9.30 a.m. every business day and closes at 2.30 p.m.In order to encourage foreign investment into Nigeria, the government has abolished legislation preventing the flow of foreign capital into the country. This has allowed foreign brokers to enlist as dealers on the Nigerian Stock Exchange, and investors of any nationality are free to invest. Nigerian companies are also allowed multiple and cross border listings on foreign markets.

Pricing: The Nigerian Capital Market was deregulated in 1993. Consequently, prices of new issues are determined by issuing houses and stockbrokers, while on the secondary market prices are made by stockbrokers only. The market/quote prices, along with the All-Share Index plus NSE 30 and Sector Indices, are published daily in The Stock Exchange Daily Official List, The

Nigerian Stock Exchange CAPNET (an intranet facility), newspapers, and on the stock market page of the Reuters Electronic Contributor System.

Regulation: The NSE is regulated by the Securities and Exchange Commission, which has the mandate of Surveillance over the exchange to forestall breaches of market rules and to deter and detect unfair manipulations and trading practices.[3] The exchange has an automated trading System. Data on listed companies' performances are published daily, weekly, monthly, quarterly and annually.Transactions on The Exchange are regulated by The Nigerian Stock Exchange, as a self-regulatory organization (SRO), and the Securities and Exchange Commission (SEC) – apex regulator, which administers the Investments and Securities Act of 2007.

The All-Share Index: The Exchange maintains an All-Share Index formulated in January 1984 (January 3, 1984 = 100). Only common stocks (ordinary shares) are included in the computation of the index. The index is value-weighted and is computed daily. The highest value of 66,371.20 was recorded on March 3, 2008. Also, The Exchange has introduced the NSE-30 Index, which is a sample-based capitalization-weighted index plus four sectorial indices. Similarly, five sectoral indices have been introduced to complement existing indices. These are NSE-Food/Beverages Index, (Later renamed NSE – Consumer Goods Index) NSE Banking Index, NSE Insurance Index, NSE Industrial Index and NSE Oil/Gas Index.

Associations: The Nigerian Exchange is a member of the World Federation of Exchanges (FIBV). It is also an observer at meetings of International Organization of Securities

Commissions (IOSCO), and a foundation member of the African Stock Exchanges Association (ASEA). On 31 October 2013, it joined the United Nation's Sustainable Stock Exchanges (SSE) initiative. The NSE is regulated by the Securities and Exchange Commission, which has the mandate of Surveillance over the exchange to forestall breaches of market rules and to deter and detect unfair manipulations and trading practices. The exchange has an automated trading System. Data on listed companies' performances are published daily, weekly, monthly, quarterly and annually.

CHARACTERISTICS OF THE NIGERIAN STOCK MARKET

Stock market development can be categorized using three main characteristics:traditional, institutional and asset pricing (Demirgüç-Kunt & Levine 1996). Traditionalcharacteristics are concerned with basic growth measures of stock market. These measuresinclude number of listed companies and market capitalization. There are also the Institutionalcharacteristics measures. These Institutional characteristics measures are the regulatory and legalrole that may influence functioning of the market, information disclosure and transparencyrequirements as well as market barriers and trading costs. Lastly, the Asset Pricingcharacteristics measures focus on the efficiency of the market especially in relation to the pricingof risk.

Traditional Characteristics

a) Market Size: With 269 securities listed and a market capitalisation of approximately ₦300 billion or

US$3,000 million, relatively to international standards, the Nigerian Stock Exchange can still beregarded as small. In Africa, Nigeria ranked 4th after South Africa, Egypt and Morocco in

termof market size (Standard and Poor's Emerging Stock Markets Factbook, 2000). Among theemerging markets, Nigeria's share of emerging market capitalization out of 54 markets coveredby Standard and Poor's was just 0.1% as at the end of 1999 (Standard and Poor's EmergingStock Markets Factbook, 2000).

Alile and Anao, (1986) adduced possible reasons for the small size. One of the reasons isthat indigenous entrepreneurs were not too keen in to going public due to fear of losing control.However, an innovative move by the stock market through the creation of second–tier securitiesmarket (SSM) tried to find solution to the problem. Measures taken by the governments and theexchange itself are expected to boost the resource base of the stock market in Nigeria. Thesemeasures are: Privatization of Public Enterprises, linking up of the exchange with ReutersElectronic Contributors System for on line global dissemination of stock information, launchingof the exchange's Intranets System (CAPNET) and the transition of the exchange from manualcall-over Trading System to Automated System (ATS) in April 1999. It is also expected that thepresent democratic dispensation will impact positively on the turnover of the exchange.

Liquidity: Basically, liquidity refers to the ease with which an asset (in these case securities) can beturned into cash through an efficient market. That is, the ability to easily buy and sell securities.Demirgüç-Kunt and Levine (1996) identified two main reasons why liquidity is important in thecharacterization of stock market. The first is that liquidity relates to the riskiness of theinvestment. An investment is deemed to be less risky where investors are able to alter theirportfolios quickly and cheaply. While the second, theoretically, allocation of capital is moreefficient and as such liquid market enhances long-term economic growth. Added to the

pointsabove Osinubi (1998) pointed out that liquidity of the stock market facilitates profitableinteraction between the stock market and the money market in that shares become easilyacceptable as collateral for bank lending thereby boosting credit and investment.There are two main measures of liquidity; total value traded ratio and turnover ratio.

a) *Total value traded ratio* is the total value of shares traded on the Stock market exchangedivided by GDP. It measures trading of equities as a share of national output. Normally, itshould positively reflect liquidity on an economy wide basis. The market has an average of0.25 per annum for the study period.

b) *Turnover ratio* is the value of total shares divided by capitalization. High turnover reflectslow transaction costs. The Nigerian stock market turnover ratio for the period under studyhas an average of 0.04.

Institutional Characteristics

a) Regulatory Institutions: Regulation is seen as a way of buoying investor's confidence in brokers and othercapital intermediaries and stakeholders. It ensures fair play and transparency in themarket operations. This in turn encourages investment and trading in the stock market.Nigerian capital market had from the onset ensured that a strong institutional frameworkwas in place through the establishment of Capital Issue Commission (though with nolegal status), which later metamorphosed, to Nigeria Securities and ExchangeCommission in 1979 and serves as the apex regulatory body of Nigerian capital market.Of added importance is that the Nigerian Stock Exchange itself is a self-regulatoryinstitution (Akamiokhor, 1984; Inanga & Emenuga, 1997).

b) Transaction costs: One of the relative measures of the efficiency of a stock market is the level of transactioncost. The higher the transaction cost the highly inefficient the market is perceived to be.Transaction cost can either be viewed from the perspective of an investor or that of thecompanies. From a company's point of view, it includes all expenses incurred in the bidto make public offer of equity or loan stock. For an investor on the hand, transaction costcomprises all expenses incurred in the purchase of shares or loan stock. Identifiabletransaction cost in Nigerian capital market includes: application fee (0.5%), valuation fee(0.75%), brokerage fee (1%) and vending fee (1%). Other cost item includes payment toauditors, solicitors, advertising and administrative expenses (Inanga & Emenuga,1997).

c) Openness and market Barriers: Until 1972 when the Indiginisation Decree was promulgated, there was no restriction toforeign investors in the Nigerian capital market. The Decree also known as NigerianInvestment Promotion Decree was amended in 1977 and it effectively restrict capitalinflows to a maximum of 40% equity holding in listed security among other stringentmeasures. The Decree was again amended in 1989 during the privatization era. This timeit was aimed at encouraging domestic investment by foreigners. However, totalderegulation of the capital market was helped by the Nigerian Investment PromotionCommission Act of 1995, Foreign Exchange (Miscellaneous Provisions) Act of 1995 andrecently, the Investment and Securities Act of 1999. Foreigners now participate in theNigerian capital market both as operators and investors. There is no limit any more to thepercentage of foreign holding in any company registered in Nigeria. As at 2000, foreignholdings on the Nigeria stock exchange is 3.96 on the average (BGL Financial Monitor,2001).

Asset Pricing Characteristics: This deals with the efficiency of the asset pricing process in the securities market. Themajor yardstick for measuring efficiency in terms of market prices is the informational contentinherent in such prices. A market price is touted as reflecting a strongly efficient market if itadequately and correctly reflects all available information (past, present and future) and are atthe disposal of all market participants simultaneously and instantaneously. It is regarded assemi-strong where current stock prices reflect both the information contained in the historicalprices and all publicly available information. Where the current prices reflect only the historicalinformation with little predictive value, the market is regarded as weak (Inanga & Emenuga,1997).

2.1.9.2 **The South African Stock Exchange Market**

JSE Limited (previously the **JSE Securities Exchange** and the **Johannesburg Stock Exchange**) is the largest stock exchange in Africa. It is situated at the corner of Maude Street and Gwen Lane in Sandton, Johannesburg, South Africa. In 2003 the JSE had an estimated 472 listed companies and a market capitalisation of US$182.6 billion (€158 billion), as well as an average monthly traded value of US$6.399 billion (€5.5 billion). As of 31 December 2013, the market capitalization of the JSE was at US$1,007 billion (World Bank, 2014).

History: The discovery of gold on the Witwatersrand in 1886 led to many mining and financial companies opening and a need soon arose for a stock exchange.The *Johannesburg Exchange and Chambers Company* was established by a London businessman, Benjamin Minors Woollan and housed at the corner of Commissioner and Simmonds Streets. Out of this the JSE was born on 8

November 1887. By 1890 the trading hall became too small and had to be rebuilt but this too was outgrown. Trading then moved into the street. The Mining Commissioner closed off Simmonds Street between Market Square and Commissioner Street by means of chains.In 1903, a new building was built for the JSE on Hollard Street. It was a storey building that took up an entire whole city block bounded by Fox and Main, Hollard and Sauer Streets.After World War II, it became apparent that this building was again inadequate and in 1947 the decision was made to rebuild the stock exchange. It took 11 years before construction began and in February 1961 the second exchange at Hollard Street was officially opened. By 1963, the JSE became a member of the Federation International Bourses de Valeurs (FIBV).

In 1978, the JSE took up residence at 17 Diagonal Street near Kerk Street, Johannesburg. 1993 saw the JSE become an active member of the African Stock Exchanges Association. After 108 years, the open outcry system of trading was changed to an electronic system on 7 June 1996.In September 2000, the Johannesburg Securities Exchange moved to its present location in Sandton, Gauteng and changed its official name to the JSE Securities Exchange.In 2001 an agreement was struck with the London Stock Exchange enabling cross-dealing between the two bourses and replacing the JSE's trading system with that of the LSE. In 2009 the JSE acquired the Bond Exchange of South Africa for R240 million and rebranded it the JSE debt market adding South African government and corporate bonds as well as interest rate derivatives to its product set.On 18 June 2012, the JSE became a founding member of the United Nations Sustainable Stock Exchanges initiative on the eve of the United Nations Conference on Sustainable Development

(Rio+20). On 14 April 2014, the JSE re-branded to demonstrates the bourse's identity as a modern African marketplace that connects investors to growth opportunities not only in South Africa but globally.

About the JSE: The JSE provides a market where securities can be traded freely under a regulated procedure. It not only channels funds into the economy, but also provides investors with returns on investments in the form of dividends.

The Johannesburg Exchange in 1893: The exchange successfully fulfils its main function—the raising of primary capital—by rechannelling cash resources into productive economic activity, thus building the economy while enhancing job opportunities and wealth creation.

The exchange is directed by an honorary committee of 16 people, all with full voting rights. The elected stockbroking members, who cannot number less than eight or more than eleven, may appoint an executive president and five outside members to the committee. Policy decisions are made by the committee and carried out by a full-time executive committee headed by the executive president.

The JSE is governed by its members but through their use of JSE services and facilities, these members are also customers of the Exchange. Although there is only one stock exchange in South Africa, the Stock Exchanges Control Act (repealed by the Securities Services Act of 2004) does allow for the existence and operation of more than one exchange. Each year the JSE must

apply to the Minister of Finance for an operating license which vests external control of the exchange in the FSB.

JSE TradElect: The JSE's fully automated (electronic trading) trading system is called the Millennium Exchange, which replaced the JSE TradElect system in 2012, which in turn had replaced the JSE SETS system in April 2007, which had replaced the JSE JET system in May 2002. The change to the Millennium Exchange involved moving the platform from London to a new platform housed in the JSE building in Johannesburg, thus speeding up the execution of transactions. The JSE operates an order-driven, central order book trading system with opening, intra-day and closing auctions.

Sens: In August 1997, the JSE launched the real-time Stock Exchange News Service (Sens) to enhance market transparency and investor confidence. Initially, it was optional for listed companies to use the service during its two-month trial period. From 15 October, augmented JSE listing requirements oblige companies to disseminate any corporate news or price-sensitive information on the service prior to using any other media outlet. Sens is carried by all the major wire services.

Strate: Since its inception over ten years ago, Strate (Pty) Ltd has become the licensed South Africa's Central Securities Depository (CSD) for the electronic settlement of financial instruments in South Africa. Strate's stated core purpose is to mitigate risk, bring efficiencies to South African financial markets and improve its profile as an investment destination.Strate

handles the settlement of a number of securities, including equities and bonds for the Johannesburg Stock Exchange (JSE), as well as a range of derivative products such as warrants, exchange-traded funds (ETFs), retail notes and tracker funds. It has now added the settlement of money market securities to its portfolio of services. It provides services to issuers for their investors in terms of the Companies Act and Securities Services Act (SSA), 2004.

2.1.9.3 The Nairobi Stock Exchange market

The **Nairobi Securities Exchange** (**NSE**) was constituted as *Nairobi Stock Exchange* in 1954 as a voluntary association of stockbrokers in the European community registered under the Societies Act (World Bank, 2014).

History: In Kenya, dealing in shares and stocks started in the 1920s when the country was still a British colony.A stock exchange was first floated in 1922 at the Exchange Bar in the Stanley Hotel in Nairobi. However, the market was not formal as there did not exist any rules and regulations to govern stock broking activities. Trading took place on a 'gentleman's agreement.' Standard commissions were charged with clients being obligated to honour their contractual commitments of making good delivery and settling relevant costs. At that time, stock broking was a sideline business conducted by accountants, auctioneers, estate agents and lawyers who met to exchange prices over a cup of coffee. Because these firms were engaged in other areas of specialisation, the need for association did not arise.

In 1951, an estate agent named of Francis Drummond established the first professional stock broking firm. He also approached the finance minister of Kenya, Sir Ernest Vasey, and impressed upon him the idea of setting up a stock exchange in East Africa. The two approached London Stock Exchange officials in July 1953 and the London officials accepted to recognise the setting up of the Nairobi Stock Exchange as an overseas stock exchange.

1984–1995: In 1954 the Nairobi Stock Exchange was then constituted as a voluntary association of stockbrokers registered under the Societies Act. Since Africans and Asians were not permitted to trade in securities, until after the attainment of independence in 1963, the business of dealing in shares was confined to the resident European community. At the dawn of independence, stock market activity slumped, due to uncertainty about the future of independent Kenya.

1988 saw the first privatisation through the NSE, of the successful sale of a 20% government stake in Kenya Commercial Bank. The sale left the Government of Kenya and affiliated institutions retaining 80% ownership of the bank.

Notably, on 18 February 1994 the NSE 20-Share Index recorded an all-record high of 5030 points. The NSE was rated by the International Finance Corporation (IFC) as the best performing market in the world with a return of 179% in dollar terms. The NSE also moved to more spacious premises at the Nation Centre in July 1994, setting up a computerised delivery and settlement system (DASS). For the first time since the formation of the Nairobi Stock Exchange, the number of stockbrokers increased with the licensing of eight new brokers.

1996–2005: In 1996, the largest share issue in the history of NSE, the privatisation of Kenya Airways, came to the market. Having sold a 26% stake to KLM, the Government of Kenya proceeded to offer 235,423,896 shares (51% of the fully paid and issued shares of Kshs. 5.00 each) to the public at Kshs. 11.25 per share. More than 110,000 shareholders acquired a stake in the airline and the Government of Kenya reduced its stake from 74% to 23%. The Kenya Airways Privatization team was awarded the World Bank Award for Excellence for 1996 for being a model success story in the divestiture of state-owned enterprises. In 1998 the government expands the scope for foreign investment by introducing incentives for capital markets growth including the setting up of tax-free Venture Capital Funds, removal of Capital Gains Tax on insurance companies' investments, allowance of beneficial ownership by foreigners in local stockbrokers and fund managers and the envisaged licensing of Dealing Firms to improve market liquidity.With effect from 1 January 1999, Kenya adopted the International Accounting Standards (IAS) as the local accounting standards.

The signing of the shareholders' agreement for the Central Depository and Settlement Corporation (CDSC) was done in August 2002. The shareholders consisted of the Nairobi Stock Exchange (20%), the Association of Kenya Stockbrokers (18%), the CMA Investor Compensation Fund (7%), and 9 institutional investors through the Capital Markets Challenge Fund (50%) who collectively invested in the Central Depository and Settlement Corporation (CDSC). The CDSC being the legal entity that owns and runs the clearing, settlement, depository and registry system for securities traded in Kenya's capital markets. As of November 2002, the

NSE became the sole NNA in Kenya, responsible for allocating the unique code for quoted and unquoted securities domiciled in Kenya.

In March 2003 the CDSC in collaboration with the NSE commenced the CDS Education Campaign in preparation for the market automation. The first CDS Education Workshop, with the theme "The CDS Legal and Regulatory Framework" kicked off. For the year ending 31 December 2003, the exchange recorded an equity turnover exceeding Kshs. 15.25 billion, more than the combined equity turnover recorded in the previous five years.The NSE celebrated its Golden Jubilee in 2004, and also had the privilege of hosting the 8th ASEA conference. In this celebration, the first NSE magazine dubbed "The Exchange" and, The Central Depository and Settlement Corporation (CDSC), which manage Central Depository Systems, were both launched.For the year ending 31 December 2004, the exchange recorded an equity turnover exceeding Kshs. 22.32 billion; an increase of 46.37% over the corresponding period for 2003.For the year ending 31 December 2005, the exchange recorded an equity turnover exceeding Kshs. 36.52 billion (a 63.61% increase over the previous year's performance of Kshs. 22.32 billion),**2006–2008:** In May 2006, NSE formed a demutualisation committee to spearhead the process of demutualisation. A demutualisation consultant (Ernst and Young) was appointed to advice on the process.In September 2006 live trading on the automated trading systems of the Nairobi Stock Exchange was implemented. The ATS was sourced from Millennium Information Technologies (MIT) of Colombo, Sri Lanka, who is also the suppliers of the Central Depository System (CDS). MIT have also supplied similar solutions to the Colombo Stock Exchange and

the Stock Exchange of Mauritius. The NSE ATS solution was customised to uphold the spirit of the Open Outcry Trading Rules in an automated environment.

An MOU between the Nairobi Stock Exchange and Uganda Securities Exchange was signed in November 2006 on mass cross listing. The MOU allowed listed companies in both exchanges to dualist. This will facilitate growth and development of the regional securities markets.In February 2007 NSE upgraded its website to enhance easy and faster access of accurate, factual and timely trading information. The upgraded website is used to boost data vending business.In July 2007 NSE reviewed the Index and announced the companies that would constitute the NSE Share Index. The review of the NSE 20-share index was aimed at ensuring it is a true barometer of the market. A wide area network (WAN) platform was implemented in 2007; this eradicated the need for brokers to send their staff (dealers) to the trading floor to conduct business. Trading is now mainly conducted from the brokers' offices through the WAN. However, brokers under certain circumstances can still conduct trading from the floor of the NSE.

In 2008, the NSE All Share Index (NASI) was introduced as an alternative index. Its measure is an overall indicator of market performance. The Index incorporates all the traded shares of the day. Its attention is therefore on the overall market capitalisation rather than the price movements of select counters. In April 2008, NSE launched the NSE Smart Youth Investment Challenge to promote stock market investments among Kenyan youth.

The objective of the challenge is threefold:

i. To occupy the minds of the youth positively and draw them away from the negative energy created by the current political, economic and social situation in the country;
ii. Encourage the culture of thrift and saving funds amongst the university students;
iii. Encourage the youth to invest their savings in the capital markets.

After the resignation of Chris Mwebesa, the NSE Board appointed Peter Mwangi to be the new NSE chief executive in November 2008.The Complaints Handling Unit (CHU) was launched in August 2009 to bridge the confidence gap with NSE retail investors. CHU provides a hassle-free and convenient way to have any concerns processed and resolved. Investors — local and in the diaspora — can forward their issues via e-mail, telephone, fax, or SMS and have the ability to track progress on-line.

2009–2013: The Nairobi Stock Exchange marked the first day of automated trading in government bonds through the Automated Trading System (ATS) in November 2009. The automated trading in government bonds marked a significant step in the efforts by the NSE and CBK towards creating depth in the capital markets by providing the necessary liquidity.In December 2009, NSE marked a milestone by uploading all government bonds on the ATS. Also in 2009, NSE launched the Complaints Handling Unit (CHU) SMS System to make it easier for investors and the general public to forward any queries or complaints to NSE.In July 2011, the Nairobi Stock Exchange Limited, changed its name to the Nairobi Securities Exchange Limited.

The change of name reflected the strategic plan of the Nairobi Securities Exchange to evolve into a full service securities exchange which supports trading, clearing and settlement of equities, debt, derivatives and other associated instruments. In the same year, the equity settlement cycle moved from the previous T+4 settlement cycle to the T+3 settlement cycle. This allowed investors who sell their shares, to get their money three (3) days after the sale of their shares. The buyers of these shares, will have their CDS accounts credited with the shares, in the same time.

In September 2011 the Nairobi Securities Exchange converted from a company limited by guarantee to a company limited by shares and adopted a new Memorandum and Articles of Association reflecting the change. In October 2011, the Broker Back Office commenced operations. The system has the capability to facilitate internet trading which improved the integrity of the Exchange trading systems and facilitates greater access to the securities market.In November 2011 the FTSE NSE Kenya 15 and FTSE NSE Kenya 25 Indices were launched. The launch of the indices was the result of an extensive market consultation process with local asset owners and fund managers and reflects the growing interest in new domestic investment and diversification opportunities in the East African region.As of March 2012, the Nairobi Securities Exchange became a member of the Financial Information Services Division (FISD) of the Software and Information Industry Association (SIIA).In March 2012 the delayed index values of the FTSE NSE Kenya 15 Index and the FTSE NSE Kenya 25 Index were made available on the NSE website www.nse.co.ke. The new initiative gives investors the opportunity to access current information and provides a reliable indication of the Kenyan equity market's

performance during trading hours.In May 2013, the Nairobi Securities Exchange moved to the Exchange, 55 Westlands Road, Westlands, Nairobi.

From 2014: On 27 June 2014, The Capital Markets Authority proved the listing of the NSE stock through an IPO and subsequently self-lists its shares on the Main Investment Market Segment. The IPO was set to open on 24 July 2014 and would run up to 12 August 2014.The listing will make the NSE join the of the Johannesburg Stock Exchange in being the only exchanges in Africa that are self-listed.The NSE IPO was oversubscribed by 763.92%kj9 making it the most oversubscribed share offer in the NSE's 60-year history. The NSE shares started trading on the Main Investment Market Segment of the exchange on 9 September 2014. In November 2014, the NSE welcomed two new listing to the bourse, i.e. Flame Tree Group, an FMCG company and Kurwitu Ventures, a Sharia complient investment company. Both were listed in the Growth Enterprise Market Segment by way of introduction. Effective 11 February 2015, CMC Holdings, Kenya's largest importer of vehicles and largest car-assembly company, was de-listed from the NSE, following its take over by the Al-Futtaim Group, based in the United Arab Emirates. In March 2015, the NSE officially joined the United Nations Sustainable Stock Exchanges (SSE) initiative whereby they made a voluntary pledge to inform their stakeholders of the importance of integrating sustainability in their capital markets.

Types of indices

These include:

1. NSE 20 share Index

2. NSE All Share Index (NASI)
3. FTSE NSE Indices
4. Denis

Regional integration: NSE is a member of the African Securities Exchanges Association, East African Securities Exchanges Association and an affiliate member of World Federation of Exchanges.

Subsidiaries and Investments: Other than stock and bond trading as the main business of the NSE, the exchange has the following investments:

i. NSE Clear Limited - 100% Shareholding - Nairobi, Kenya - Provision of clearing house services for the derivatives/futures exchange.
ii. Central Depository and Settlement Corporation Limited - 22.5% Shareholding - Nairobi, Kenya - Provision of clearing, settlement and depository services.

Ownership: The shares of the Nairobi Securities Exchange are listed and traded on its own main board, under the symbol: **NSE**. As of 31 December 2014 the shareholding in the bourse's stock was as depicted in the table below:

Nairobi Securities Exchange Stock Ownership structure

Rank	**Name of Owner**	**Percentage Ownership**
1.	CFC Stanbic Nominees Kenya Limited	7.30
2.	Cabinet Secretary, Treasury of Kenya	3.37
3.	Investor Compensation Fund Board	3.37

4.	Other	85.96
5.	Total	100.00

Governance: Nairobi Securities Exchange is governed by a nine-person Board of Directors.

2.2.0 **Theoretical Framework**

This research work is anchored on two basic theories, namely:

1 Theory of Foreign Direct Investments (Dunnings Electic theory)
2 Theory of Capital Market Growth (Efficient Market Hypothesis theory)

The justifications for the selection of these theories for our study include;

i. Dunning unlike other FDI proponents effectively captured all the major microeconomic reasons for foreign capital flows such as ownership-specific advantages, Location-specific advantages and Internalization-advantages, that when religiously applied by LDCs will make their stock markets highly liquid, very strong and well developed.
ii. The Efficient Market Hypothesis indicates how positive informations about the stock markets or its operators can help to speed up its development including attracting new capital inflows.

2.2.1 **Theory of Foreign Direct Investment**

Numerous theories have been developed in FDI literature. These theories have been classified as microeconomic theories and macroeconomic theories of FDI. Microeconomic theories focus on the characteristics of a firm that influence its decision making processes. These include market imperfections, market power and investment location theories.Macroeconomic theories of FDI seek to investigate on a country's characteristics that explain FDI inflows within and across

countries. Examples include internalization and product cycle theories.FDI literature has also reviewed theories that focus on FDI motives.

This section deals with one of the microeconomic theories of FDI on which we have anchored our research work: The Dunning's eclectic theory.

2.2.2**The Eclectic Theory**

This theory was postulated by Dunning (1973) and seeks to offer a general framework for determining patterns of both foreign owned production undertaken by a country's own enterprises and that of domestic production owned by foreign enterprises. According to Dunning (1973), there are two types of investments that a firm can chose to undertake. That is, Foreign Portfolio Investment (FPI) and Foreign Direct Investment (FDI). FPI is defined as the passive holdings of securities and other financial assets, which do not entail active management or control of securities issuer. FPI is positively influenced by high rates of return and reduction of risk through geographical diversification. The return of FPI is normally in the form of interest payments or non-voting dividends. FDI is defined as the acquisition of foreign assets for the purpose of control (Dunning, 1973).

The eclectic theory is launched in three pillars of Ownership, Location and Internalisation (O+L+I). The three pillars are different questions that foreign investors seek to answer. The O pillar comprises of the ownership advantages that addresses the question why the foreign firms need to go abroad. According to Dunning (1985), this question hypothesizes that foreign firms

have one or more firm specific advantages which allows them to overcome operating costs in a foreign country. The ownership advantages include core competency, brand name and economies of scale amongst others.

The L pillar addresses the question of location. According to Dunning (1985), the decision of the firm to move offshore is based upon the firm specific advantage in conjunction with factors in a foreign country. Factors such as land and labour are important in determining the location of a Multinational Enterprise (MNE) in order for it to make profits. Dunning (1985) further asserts that the choice of investment location depends on several complex calculations that include economic, social and political factors to determine whether investing in that country is profitable or not.

The I pillar represents the internalisation advantages on how to go abroad. The MNE have several options to choose from in their entry mode in a foreign country. Choices range from the arm's length transactions (market) to the hierarchy (wholly owned subsidiary). The MNE can choose internalisation if the market does exist or functions poorly, that is transaction costs of the external route are high. Under the firm specific advantage, an MNE operating a plant in a foreign country can be faced with a number of additional costs in relation to their local counterparts (local competitor). These costs according to Dunning (1985) comprises of; Cultural, legal, institutional and language differences; Lack of knowledge about local market conditions; and increased expense of communicating and operating at a distance.

The eclectic theory therefore points out that for a foreign firm to be competitive in a foreign country, it must have some kind of unique advantages that can help them overcome the cost associated with operating in the new country. These advantages are called ownership or firm specific advantages (FSAs) or core competencies and they help the foreign firm in generating high revenues for the same cost, or lower costs for the same revenues compared to domestic firms. Dunning (1997) identified three main types of ownership advantages for multinational enterprises. These include; Knowledge/technology defined to include all forms of innovative ideas.; Economies of large size include economies of scale, scope, learning and broader access to financial capital and diversification of assets and risks.; and Monopolistic advantages occur in the form of privileged access to input and output markets through patent rights and ownership of scarce natural resources.

Dunning (1997) reiterated that ownership advantages can change over time and varies with age and experience of the multinational enterprise (MNE). The firm must use some foreign factors in connection with its domestic Firm Specific Advantages in order to earn full rent on the FSAs. The locational advantages of various countries are keys in determining which country will play host to the MNE. Dunning (1997) distinguished between three categories of country specific advantages (CSAs) as follows; Economic, Social and Political. The economic advantages include the quantities and qualities of the factors of production, size and scope of the market, transport, as well as telecommunications costs. Social advantages include psychological distance between the home and the host country, general attitude towards foreigners, language and cultural

differences and the overall stance towards free enterprise. Finally the political advantages include the general and specific government policies that affect inward FDI inflows, international production and intra- firm trade. Thus, an attractive (CSAs) package for a multinational enterprise would include a large and growing high income market, low production costs, a large endowment of factors scarce in the home country, politically stable economy and a country that is culturally and geographically close to the home country.

The eclectic theory points out that the existences of a special knowhow or core skill is an asset that can generate economic profits to a foreign firm. These profits can be earned by licencing the Firms Specific Advantage (FSA) to another firm, exporting products using the FSA as an input or setting up subsidiaries abroad. Furthermore the theory provides that a hierarchy (vertically or horizontally integrated) is a better method of organising transactions than the market (trade between unrelated firms) whenever external markets are non-existence or imperfect. Thus internalisation advantages lead to preferentially wholly owned subsidiaries by MNEs over arm's length transactions. However in setting MNEs abroad Dunning (1997) identified the following difficulties;

i. Natural Market failure (natural imperfections).
ii. Lack or insufficient information on pricing, costs and benefits.
iii. Transaction costs under conditions of risk, uncertainty, moral hazard and adverse selection.
iv. Structural market failure due to imperfections created by MNEs.

v. Monopoly power exertion using oligopolistic methods, predatory pricing, cross subsidization, market cartelization and market segmentation.

vi. Arbitraging government regulations and exploiting regulations in terms of tariffs, taxes, price controls and non- tariff barriers.

Furthermore, Dunning (1994) highlighted that FDI in developing countries is shifting from market seeking and resource seeking FDI to more efficiency seeking FDI. This is due to socio-economic pressures induced on prices, thus MNEs are expected to relocate some of their production facilities to low cost developing countries. Despite of these developments, FDI in developing countries is still directed at assessing natural resources and national or regional markets. Like any other model, the eclectic theory has its weaknesses. It has been suggested in the theory that the OLI variables (Ownership, Location and Internalization) are independent of each other. This notion has received much criticism by international trade scholars. The understanding is that it is very difficult to separate these variables as they work hand in hand. For example a firm's response to its exogenous locational variables might itself influence its ownership advantages and its ability and willingness to internalise markets. Therefore, over time, the separate identity of variables becomes difficult to justify.

Kojima (1982) claimed that the explanatory variables identified by the eclectic theory under each pillar are so numerous that its predictive value is almost zero. Furthermore, Kojima (1982) argued that the eclectic theory insufficiently allows for differences in the strategic response of firms to any given configuration of OLI variables. The theory has been viewed in static or

comparatively static terms. In this regard, it offers less guidance to the dynamics of the international process of firms and countries.

The eclectic theory is relevant to the study as it identifies the determinants of MNEs to invest abroad as portrayed in the OLI variables. For instance, in the case of the location advantage, foreign investors have the advantage of choosing the location where the plants will be built. In most cases these locations are close to the ports and harbours for the ease of transportation. Furthermore foreign investors have the ownership advantage which includes brand names, benefits of economies of scale and technology.

2.2.3 **Capital (Stock) Market Theory**

In financial economics, theefficient-market hypothesis (EMH) states that asset prices fully reflect all available information. A direct implication is that it is impossible to "beat the market" consistently on a risk-adjusted basis since market prices should only react to new information or changes in discount rates (the latter may be predictable or unpredictable). The EMH was developed by Professor Eugene Fama who argued that stocks always trade at their fair value, making it impossible for investors to either purchase undervalued stocks or sell stocks for inflated prices. As such, it should be impossible to outperform the overall market through expert stock selection or market timing, and that the only way an investor can possibly obtain higher returns is by chance or by purchasing riskier investments. Fama and Kenneth (2012) showed that the distribution of abnormal returns of US mutual funds is very similar to what would be expected if no fund managers had any skill—a necessary condition for the EMH to hold.

There are three variants of the hypothesis: "weak", "semi-strong", and "strong" form. The weak form of the EMH claims that prices on traded assets (*e.g.*,stocks, bonds, or property) already reflect all past publicly available information. The semi-strong form of the EMH claims both that prices reflect all publicly available information and that prices instantly change to reflect new public information. The strong form of the EMH additionally claims that prices instantly reflect even hidden "insider" information.Critics have blamed the belief in rational markets for much of the late-2000s financial crisis. In response, proponents of the hypothesis have stated that market efficiency does not mean having no uncertainty about the future, that market efficiency is a simplification of the world which may not always hold true, and that the market is practically efficient for investment purposes for most individuals.

The efficient-market hypothesis emerged as a prominent theory in the mid-1960s. Paul Samuelson had begun to circulate Bachelier's work among economists. In 1964 Bachelier's dissertation along with the empirical studies mentioned above were published in an anthology edited by Paul Cootner. Fama (1965), published his dissertation arguing for the random walk hypothesis. Also, Samuelson published a proof showing that if the market is efficient, prices will show random-walk behavior. This is often cited in support of the efficient-market theory, by the method of affirming the consequent, however in that same paper, Samuelson warns against such backward reasoning, saying "from a nonempirical base of axioms you never get empirical results." In 1970, Fama published a review of both the theory and the evidence for the

hypothesis. The paper extended and refined the theory, included the definitions for three forms of financial market efficiency: weak, semi-strong and strong (see below).

It has been argued that the stock market is “micro efficient” but not “macro efficient”. The main proponent of this view was Samuelson, who asserted that the EMH is much better suited for individual stocks than it is for the aggregate stock market. Research based on regression and scatter diagrams has strongly supported Samuelson's dictum. This result is also the theoretical justification for the forecasting of broad economic trends, which is provided by a variety of groups including non-profit groups as well as by for-profit private institutions (such as brokerage houses and consulting companies).

Further to this evidence that the UK stock market is weak-form efficient, other studies of capital markets have pointed toward their being semi-strong-form efficient. A study by Khan of the grain futures market indicated semi-strong form efficiency following the release of large trader position information (Khan, 1986). Studies by Firth (1976, 1979, and 1980) in the United Kingdom have compared the share prices existing after a takeover announcement with the bid offer. Firth found that the share prices were fully and instantaneously adjusted to their correct levels, thus concluding that the UK stock market was semi-strong-form efficient. However, the market's ability to efficiently respond to a short term, widely publicized event such as a takeover announcement does not necessarily prove market efficiency related to other more long term, amorphous factors. Dreman has criticized the evidence provided by this instant "efficient"

response, pointing out that an immediate response is not necessarily efficient, and that the long-term performances of the stock in response to certain movements are better indications.

Beyond the normal utility maximizing agents, the efficient-market hypothesis requires that agents have rational expectations; that on average the population is correct (even if no one person is) and whenever new relevant information appears, the agents update their expectations appropriately. Note that it is not required that the agents be rational. EMH allows that when faced with new information, some investors may overreact and some may underreact. All that is required by the EMH is that investors' reactions be random and follow a normal distribution pattern so that the net effect on market prices cannot be reliably exploited to make an abnormal profit, especially when considering transaction costs (including commissions and spreads). Thus, any one person can be wrong about the market—indeed, everyone can be—but the market as a whole is always right.

2.2.3.1 Weak-form Efficiency

In weak-form efficiency, future prices cannot be predicted by analyzing prices from the past. Excess returns cannot be earned *in the long run* by using investment strategies based on historical share prices or other historical data. Technical analysis techniques will not be able to consistently produce excess returns, though some forms of fundamental analysis may still provide excess returns. Share prices exhibit no serial dependencies, meaning that there are no "patterns" to asset prices. This implies that future price movements are determined entirely by information not contained in the price series. Hence, prices must follow a random walk. This

'soft' EMH does not require that prices remain at or near equilibrium, but only that market participants not be able to *systematically* profit from market 'inefficiencies'. However, while EMH predicts that all price movement (in the absence of change in fundamental information) is random (i.e., non-trending), many studies have shown a marked tendency for the stock markets to trend over time periods of weeks or longer and that, moreover, there is a positive correlation between degree of trending and length of time period studied (but note that over long time periods, the trending is sinusoidal in appearance). Various explanations for such large and apparently non-random price movements have been promulgated.

There is a vast literature in academic finance dealing with the momentum effect identified by Jegadeesh andTitman (1993). Stocks that have performed relatively well (poorly) over the past 3 to 12 months continue to do well (poorly) over the next 3 to 12 months. The momentum strategy is long recent winners and shorts recent losers, and produces positive risk-adjusted average returns. Being simply based on past stock returns, the momentum effect produces strong evidence against weak-form market efficiency, and has been observed in the stock returns of most countries, in industry returns, and in national equity market indices. Moreover, Fama has accepted that momentum is the premier anomaly. The problem of algorithmically constructing prices which reflect all available information has been studied extensively in the field of computer science.

A novel approach for testing the weak form of the Efficient Market Hypothesis is using quantifers derived from Information Theory. In this line, Zunino et al (2009) found that

informational efficiency is related to market size and the stage of development of the economy. Using a similar technique, Bariviera et al (2010) uncovered the impact of important economic events on informational efficiency. The methodology proposed by econophysicists Zunino, Bariviera and coauthors is new and alternative to usual econometric techniques, and is able to detect changes in the stochastic and or chaotic underlying dynamics of prices time series.

2.2.3.2 **Semi-strong-form Efficiency**

In semi-strong-form efficiency, it is implied that share prices adjust to publicly available new information very rapidly and in an unbiased fashion, such that no excess returns can be earned by trading on that information. Semi-strong-form efficiency implies that neither fundamental analysis nor technical analysis techniques will be able to reliably produce excess returns. To test for semi-strong-form efficiency, the adjustments to previously unknown news must be of a reasonable size and must be instantaneous. To test for this, consistent upward or downward adjustments after the initial change must be looked for. If there are any such adjustments it would suggest that investors had interpreted the information in a biased fashion and hence in an inefficient manner.

2.2.3.3 **Strong-form Efficiency**

In strong-form efficiency, share prices reflect all information, public and private, and no one can earn excess returns. If there are legal barriers to private information becoming public, as with insider trading laws, strong-form efficiency is impossible, except in the case where the laws are universally ignored. To test for strong-form efficiency, a market needs to exist where investors

cannot consistently earn excess returns over a long period of time. Even if some money managers are consistently observed to beat the market, no refutation even of strong-form efficiency follows: with hundreds of thousands of fund managers worldwide, even a normal distribution of returns (as efficiency predicts) should be expected to produce a few dozen "star" performers.

2.2.4 Impact of Foreign Direct Investment Theories on Financial Market Development

According to Dunning (1994), in theory, the impact of host country can be realised in two ways. Firstly, FDI may affect the supply of productive resources including financial capital, equipment and machinery, technology, management expertise and labour training. Secondly, it can influence the aggregate demand of the host country through initial investment demand and subsequent input demand.

The classical and neo-classical economic theories both explained economic growth and development in terms of the stock of productive resources available for an economy and the utilization of these resources. According to Ricardo's classical theory of growth, an increase in capital and labour would result in growth of output. In the Harrod-Domar Model of growth, the change in capital stock and incremental capital-output ration (ICOR) determine the growth of national income. For a given ICOR, an increase in investment will lead to an increase in income (output). Accordingly, for a given amount of capital, the income is determined by marginal capital productivity (inverse of ICOR)

Development economist have argued that in the contest of developing countries that economic development is restrained by the shortage of capital, technology, skilled labour, management expertise and foreign exchange. The shortage of these resources causes bottlenecks in economic development of the economies in the developing countries and removing these bottlenecks, it is argued, is the key for these countries to achieve economic growth. Based on the above, Chan and Todaro (2006), proposed that FDI might positively affect the economic growth of developing countries through; i) FDI, as a type of foreign capital inflow, represents an addition to the domestic savings of the host country, leading to increased financial resources available for domestic investment in host country. Moreover, FDI may bring advanced equipment and machinery to the developing host country to finance the importation of capital goods that cannot be produced locally, thus contributing to capital formation.

Nevertheless, FDI may displace indigenous investments in the host country. If FDI is financed from the local financial market and results in higher interest rate, it may crowd out domestic investment. Through the forward linkage effect, foreign-invested enterprises (FIEs) supply equipment, machinery and other intermediate products to domestic firms. As the availability of these inputs increases, the production of domestic firms can be stimulated.

Similarly, economic growth in a country depends not only on its productive capacity, but also on the extent to which that productive capacity is actually utilised, together with the strength of demand. Thus, an increase in any component of aggregate demand will lead to a rise of the GDP and income level. FDI will contribute to economic growth of the host country through positively affecting aggregate demand. In the capital market, increase in capital inflow will

stimulate a corresponding increase in market capitalization, market turnover or liquidity, value of stock traded, more companies getting listed to raise equity, and growth in the All Share index. These combined will boost the development of the stock market, indicating a positive correlation of FDI injection for the developing countries (World Bank, 2015; Levine & Zervos, 1998).

2.2.5 Comparison of Foreign Direct Investment v. Foreign Portfolio Investments – Focus on Nigeria, South Africa and Kenya

There are two types of foreign investment, namely, Foreign Direct Investment (FDI) and foreign portfolio investment (FPI). FDI refers to investment in a foreign country where the investor retains control over the investment. It typically takes the form of starting a subsidiary, acquiring a stake in an existing firm or starting a joint venture in the foreign country (World Bank, 2015). Direct investment and management of the firms concerned normally go together. If the investor has only a sort of property interest in investing the capital in buying equities, bonds, or other securities abroad, it is referred to as portfolio investment. That is, in the case of portfolio investments, the investor uses capital in order to get a return on it, but has not much control over the use of the capital (World Bank, 2014)

FDIs are governed by long-term considerations because these investments cannot be easily liquidated. Hence, factors like long-term political stability, government policy, industrial and economic prospects, etc., influence the FDI decision. However, portfolio investments, which can be liquidated fairly easily, are influenced by short-term gains. Portfolio investments are generally much more sensitive than FDIs to short term uncertainties.

According to Parthapratim (2006), FPI can benefit the real sector of an economy in threebroad ways. First, the inflow of FPI can provide a developing country non-debt creating source offoreign investment. The developing countries are capital scarce. The advent of portfolio investmentcan supplement domestic saving for improving the investment rate. By providing foreign exchangeto the developing countries, FPI also reduces the pressure of foreign exchange gap for the LDCs,thus making imports of necessary investment goods easy for them. Secondly, it is suggested bymainstream economists that increased inflow of foreign capital increases the allocative efficiencyof capital in a country(Parthapratim, 2006). According to this view, FPI, like FDI, can induce financial resources toflow from capital-abundant countries, where expected returns are low, to capital-scarce countries,where expected returns are high. The flow of resources into the capital-scarce countries reducestheir cost of capital, increases investment, and raises output. However, according to another view,portfolio investment does not result in a more efficient allocation of capital, because internationalcapital flows have little or no connection to real economic activity. Consequently portfolioinvestment has no effect on investment, output, or any other real variable with non-trivial welfareimplications.

The third and the most important way FPI affects the economy is through its various linkageeffects via the domestic capital market. According to the mainstream view, one of the mostimportant benefits from FPI is that it gives an upward thrust to the domestic stock marketprices. This has an impact on the price-earning ratios of the firms. A higher P/E (Price-Earnings) ratio leads to alower cost of finance, which in turn can lead to a higher amount of investment. The lower costof capital and a booming share market can encourage new equity

issues. A higher premium inthe new issue will be the inducing factor here. However, it must be clarified that that equityinvestment may not always lead to an increase in real investment in the private sector. This issimply because most stock purchases are on the secondary market rather than the purchase ofnewly issued shares. The first impact is to increase the price of the shares rather than the flowof funds to the companies that wish to increase investment. Increased wealth of local investorsmay actually increases consumption. This way some amount of the capital inflow can bedirected towards consumption. However, this problem is associated with any type of capitalinflows and these negative features of the FPI can be somewhat compensated by the fact thatusually a large part of it takes the form of capital gains rather than being a drain on foreignexchange in the short and in the medium run.

FPI also has the virtue of stimulating the development of the domestic stock market. Thecatalyst for this development is competition from foreign financial institutions. Thiscompetition necessitates the importation of more sophisticated financial technology, adaptationof the technology to local environment and greater investment in information processing andfinancial services. The results are greater efficiencies in allocating capital, risk sharing andmonitoring the issue of capital. This enhancement of efficiency due to internationalizationmakes the market more liquid, which leads to a lower cost of capital. The cost of foreign capitalalso tends to be lower, because the foreign portfolio can be more diversified across the nationalboundaries and therefore be more efficient in reducing country-specific risks, resulting in alower risk premium.

A well-developed stock market has its impact on the demand side also. It provides investorswith an array of assets with varying degree of risk, return and liquidity. This increased choiceof assets and the existence of a vibrant stock market provide savers with more liquidity andoptions, thereby inducing more savings. Increased competition from foreign financialinstitutions also paves the way for the derivatives' market. All this, according to themainstream belief, encourages more savings in equity related instruments and this raisesthe domestic savings rate and improve capital formation.

The table in appendix 1, shows a comparison of Foreign Direct Investments and Foreign Portfolio Investments within the study areas between 1984 – 2015. The table shows growing trend in FDI from $468.05m in 1984 for Nigeria to $8,196.61m in 2008 before the onset of the effects of the global financial crisisin the Nigeria economy. From that point there were phenomenal decline that led to the closing figure of $4,056.85 in 2015. The trend observed in FPI tends to be slightly different as the global financial crisis had minimal impact on this variable. From $0.085m in 1984, there was a steady increase to $15.32m in 2008 and finally closed at $62.01m in 2015. Similarly for South Africa, from $0.0 in 1984, the figures grew to $9,885.00 in 2008 before the financial crisis, and declined steadily closing at $5021.20m in 2015. Interms of FPI, South Africa will be seen as a net investor in other countries than they receive as this figure grew from $0.0m in 1984 to $(55.14) before closing up at $(982.50) in 2015, showing that they had net outflow in FPI for the period of the study. A review of Kenya FDI shows a steady rise from $6.91m in 1984 to $729.04m in 2007 and $95.59m in 2008 from which point it had grown steadily to $1,444.50m in 2015, showing that it was not affected by the

aftermath of the global financial crisis.Similarly, the FPI grew from $0.72m in 1984 to $35.94 in 2008 and closed at $193.70m in 2015. This indicates that the economy is much resilient and can withstand external shocks.

In the overall, the level of FDI and FPI in the selected Sub-saharan African countries have grown considerably from an annual average of $158.32m in 1984 to an average of $3,507.52m by 2015 for FDI representing 2,115.50% growth within 31 year period. Similarly for same selection and period, the FPI has grown from an annual average of $0.54m in 1984 to an annual average of ($242.26m) by 2015, representing 550% negative growth with the major negative outflow coming from South Africa. Hence, these indices have grown over the period and its our interest in this study to examine how these growths have impacted on the development of the stock markets in the sub-saharan African region. For the purpose of our study, we shall narrow our focus to the foreign direct Investment (FDI) sub-unit of the entire capital inflow for the study area as FDI and FPI move in similar growth directions as explained above.

2.3.0 **Empirical Review**

Empirical literature on the effect of foreign direct investment on stock market growth is limited, especially in Sub-Sahara Africa. However, vast literature has been done using various macroeconomic variables to x-ray economic growth and also outside Sub-Sahara Africa. Table 5, provides some summary of the empirical literature and a guide for selecting variables to be tested in the empirical analysis.

The empirical works on the relationship between foreign direct investment (FDI),financial market development (FMD) and economic growth, have focused primarilyon the relationship between FDI and economic growth (see Carkovic & Levine (2005) for athorough literature review) and the role played by FMD in that linkage (e.g., Alfaro et al.(2004, 2010), Allen et al. (2010), Bekaert et al. (2005), Hermes & Lensink (2003), Levine etal (2000), Levine & Zervos (1998), among many others). The literature is almost silent ona possible direct causality between FDI and FMD. The few empirical work that addressed thisissue, considered the role played by FMD in the channelling of FDI into economic production(e.g., Alfaro et al. (2004), Dutta & Roy (2011), Hermes & Lensink (2003), and Kholdy& Sohrabian (2005, 2008)) focus on specific regions. For example, Adam andTweneboah (2009) studied the long-run relationship between FDI and stock marketdevelopment in Ghana, and Al Nasser and Soydemir (2010) conducted Granger causality testsbetween FDI and financial development variables for Latin American countries. Although, itis established that FDI contributes more to growth in countries with more developed financialmarket (e.g., Alfaro et al. (2004, 2010)), it is not clear how FDI and FMD interact with eachother, especially in Africa, where financial markets are at the very developmental stage.

Despite this lack of empirical studies on the direct causal relationship between FDIand FMD, nevertheless, there are several theoretical rationales for expecting a causalrelationship between FDI and FMD. First, an increase in FDI net inflows would contribute toexpand the economic activities and lead to an increase in funds available in the economy,which in turn

would boost the financial intermediation through available financial markets orthe banking system (e.g. Desai et al. (2006) and Henry (2000)). Besides, companies' involvedin FDI are also likely to be listed on local stock markets as they usually originate fromindustrialised countries where financing through stock market is a tradition and a must-do forany company that wants to enhance its image among investors. Second, using politicaleconomic analysis, one can argue that an increase in FDI would reduce the relative power ofthe elites in the economy and can prompt them to adopt market friendly regulations, thusstrengthening the financial sector (Kholdy &Sohrabian (2005, 2008), Rajan &Zingales (2003)). Third, a relatively well functioning financial market can attract foreigninvestors as they will perceive it as a sign of vitality, openness from the countries authoritiesand market friendly environment, thus compelling them to invest more in the country (Henry, 2000). In addition, a relatively developed stock market increases the liquidity oflisted companies and may eventually reduce the cost of capital, thus making the countryattractive to foreign investments (Desai et al., 2006;Henry, 2000). Each of thesearguments provides a theoretical rationale for a positive relationship between FDI andfinancial market development.

Review of Empirical studies such as Alfaro et al. (2004) and Hermes and Lensink (2003), among many othershave shown how important the development of a country's financial system is in channellingFDI to more productive sectors of the economy. From the political economy perspective, theco-existence of advanced financial markets and political stability are shown to be necessaryconditions to capture the benefits of FDI. (Dutta & Roy, 2011; and, Kholdy

&Sohrabian, 2005, 2008). Other strand of literature, namely, studies on market liberalisation oralleviation of capital control and investment are also closely related to our work in the sensethat if one views capital controls or financial repression as a feature of an underdevelopedfinancial sector, capital market liberalisation can be seen as evidence of major steps towardfinancial market development. Consistent with this line of reasoning, Henry (2000) shows thatthere is usually an increase in the growth rate of private investment as well as FDI followingfinancial liberalization.

Desai et al. (2006) argued that because a considerable fraction of thefunding for local affiliates of multinational investors often comes from the local debt markets,higher interest rates due to capital control increase the cost of capital and this discouragesFDI. Thus capital control affects local investments by multinational firms because it affectslocal borrowing rates and increases the cost of repatriation. Finally, the costs associated withcapital controls undoubtedly discourage many potential investors from establishing affiliatesin the first place. Empirically, Desai et al. (2006) using US multinational firms' data, shows that liberalization of capital controls are associated with considerable increases in theactivities these firms conduct through their affiliates. Liberalization of capital controls appearsto unleash faster growth in the business activities of multinational firms in the host countries.

From this literature, the linkage between FDI and FMD passes through the adjustment of thecost of capital because financial market development reduces the cost of capital and thereforespurs investments in local companies or local affiliates of multinationals.The extant literature has not clearly established, at least empirically, a direct linkbetween FDI and FMD, especially for Sub-

saharan African countries where stock markets are at theirembryonic stages and these countries rely on huge amounts of foreign investments in order tolift their population out of poverty. The forgoing discussion relating to the link between FDIand FMD clearly suggests that the relationship between FDI and FMD is endogenouslydetermined.

Borensztein et al (1998) in their research investigated the effects of FDI on economic growth, and the channel through which FDI may be beneficial for growth. They examined whether FDI interacts with the stock of human capital to affect growth rates and also tested whether the level of FDI has an effect on the overall level of investment in the country and on the efficiency of investment. They concluded from their work that FDI affects the overall economic growth of a country which in turn affects its capital market development.

Morisset (2000) claims that Sub-Saharan African countries with a better business environment can attract more substantial FDI inflow than countries with larger local market and natural resources. Using an econometric analysis of 29 African countries over the period 1990-1997, with detailed review of two successful ones- Mali and Mozambique, the paper concludes that African countries, like Singapore and Ireland, can be successful in attracting FDI that is not based on natural resource or aimed at the local market. Morisset mentions that in recent years, some countries in the region are able to attract FDI by improving their business environment. Countries like Mali, Mozambique, Namibia, and Senegal have managed to attract more FDI than countries with bigger domestic market (Cameroon, republic of Congo and Kenya) and greater natural resource (Republic of Congo and Zimbabwe).

Also, Bende-Nabende (2002) assessed the co-integration between FDI and its determinants by analyzing the long-run investment decision-making process of investors in 19 Sub-Saharan African countries over the 1970 to 2000 period. The paper empirically analyzes both individual country data and panel data analysis of the 19 SSA countries. The study breaks down the result in to three levels: dominant, next dominant and bottom on the list. The empirical evidence suggests that market growth, a less restrictive export-orientation strategy and FDI liberalization to be dominant factors. Real exchange rates and market size are found to be next dominant factors; however openness has the least effect in attracting FDI. Surprisingly enough, human capital is found to be inconclusive. The results suggested that SSA countries long- run FDI position can be improved by improving their macroeconomic management, liberalizing their FDI regimes, broadening their export bases, and individual countries sorting out their country specific problem and focus on factors that can enhance economic, social and political-stability.

Inlater work, Asiedu (2006) evaluates broader factors such as market size, physical infrastructure, human capital, host country's investment policies, and reliability of legal system, corruption and political instability's effect on the flow of FDI into SSA. This study uses panel data for 22 SSA countries over the period 1984-2000. The results suggest that, unlike Morisset (2000), countries in SSA that are endowed with natural resources or have large markets will attract more FDI. Further, the study concluded that good infrastructure, low inflation and efficient legal system promote FDI. The study has also found that corruption and political instability have negative effect on the flow of FDI.

Anokye et al (2008) studied the impact of foreign direct investment on stock market development in Ghana and found a long-run relationship between foreign direct investment and stock market development in Ghana. Using impulse responses and variance decomposition from Vector Error Correction model, they found that increase in foreign direct investment significantly influenced the development of stock market in Ghana.In their work on impact of Foreign Direct Investment on stock market growth: Ghana Evidence, Observed a triangular causal relationship and concluded that: (1) FDI stimulates economic growth (2) economic growth promotes stock market development; and (3) implication that FDI promote stock market development.Malik and Amjad (2013), investigated the relationship between foreign direct investment and stock market development in Pakistan and concluded from its findings that foreign direct investment plays a positive role in boosting the aggregate stock market development in the long run in Pakistan.

Sulaiman and Mohammed (2014), in their research on Stock Market Development, Foreign Direct Investment and macroeconomic stability: Evidence from Nigeria – tested the relevant data covering 30 years using the Johansen co-integration and ECM methods, arrived at the empirical evidence illustrating the existence of a long-run relationship between the variables. The result showed that FDI has an insignificant impact on stock market development. (The result being quite contrary to most research results from Asia, Europe and America). In addition, exchange rate was found to have a significant negative impact, while the effect of inflation on stock market is insignificant and negative.

Issouf and Fulbert (2015) performed an empirical assessment of direct causal relationship between FDI and financial market development using panel data from emerging markets with a system of simultaneous equations and held that there is a two-way link between FDI and stock market development in studied emerging markets. On the one hand, foreign investment helps develop local stock markets by its investment spillover effects. This is because more foreign investment increases the likelihood that the affiliates of multinationals involved in FDI activities will be listed on local stock markets, since multinationals tend to hail from industrialized countries where financing through the stock market is a tradition. Furthermore, consistent with the political economy argument, one can conjecture that FDI inflows encourage the country's political elite to adopt market-friendly regulations—especially investor protection and better governance regulations: this promotes the development of the stock market. On the other hand, a relatively well-developed stock market helps attract foreign investors, as such, a market is perceived as a sign of vitality, of openness on the part of country authorities, and of a market-friendly environment. This is especially true in emerging markets, whose stock markets are more developed than are the markets of other developing countries.

Nwosa (2015) investigated the relationship between capital inflows and stock market development in Nigeria using error correction model for data spanning from 1986 to 2013. The findings revealed that only market capitalization and value traded ratio had significant relationship with foreign portfolio investment while none of the measures of stock market development significantly influenced FDI in the long-run in Nigeria. The short-run estimates

showed that among the three variables of stock market development indicators, only market capitalization influenced both FDI and foreign portfolio investment while value traded ratio only had significant influence on FDI in the short-run. The study concluded that stock market development had not significantly promoted the inflows of foreign capitals into Nigeria.

It is obvious from above that while the world bank report (2015),Issouf and Fulbert (2015), Malik and Amjad (2013), andAnokye Adam et al (2008) all favour a significant positive relationship between FDI and stock market development, Sulaiman and Mohammed (2014) and Nwosa (2015) disagreed with this position, and posited that FDI had not significantly affected stock market development in Nigeria.

2.3.1 Empirical Studies ofFDI Effects on Stock Market Capitalization

A common indicator for assessing stock market is the Market Capitalization (market value of listed shares to Gross Domestic Product, MC/GDP). The indicator has been widely used in the literature as a stable measure of stock market development for two reasons; namely – It is a measure of stock market size, which is positively correlated with the ability to mobilize capital and diversify risks; Secondly, it is presumed to include company's past retained profits and futuregrowth prospects, so that a higher ratio to GDP can signify growth prospects as well as stock market development (Levine & Zervos, 1998; Bekaert et al, 2001; Rajah & Zinghales, 2003).

Singh and Weisse (1998) examined the relationshipbetween stock market development, capital flows and longterm economic growth in emerging economies. The studyconcluded that stock market development and portfolio capitalinflows in the era of financial liberalization are unlikely toassist developing and emerging economies in achievingspeedier industrialization and faster long term economicgrowth. The study recommended that developing andemerging market economies should promote bank basedsystems, influence the scale and composition of capitalinflows and prevent a market for corporate control fromemerging.

In India, Parthapratim (2006) studied the relationship between Foreign Portfolio investment and Market capitalization between 1982 and 2004 using ordinary least square method of statistical analysis. The study discovered a positive but insignificant relationship between the variables.

Hau and Rey (2006) examined the relationship amongexchange rates, equity prices and capital inflows for seventeenOECD countries. The study developed an equilibrium modelin which exchange rates, stock prices, and capital flows werejointly determined under an incomplete foreign exchange(forex) risk trading. The study noted that incomplete hedgingof forex risk, documented for U.S. global mutual funds,induces equity price and capital flow dynamics: Higherreturns in the home equity market relative to the foreign equitymarket were associated with indigenous currencydepreciation.Further, net equity flows into the foreign market werepositively correlated with a foreign currency appreciation. Thestudy also observed that correlation was strongest after 1990especially for countries with higher equity

marketcapitalization relative to GDP, suggesting that the observedexchange rate dynamics is indeed related to equity marketdevelopment.

Kim and Yang (2008) investigated theimpacts of capital inflows on asset prices by employing apanel VAR model. The study observed that capital inflowscontributed to asset price appreciation while shocks to capitalinflow only explained a relatively small part of asset price fluctuations.

Kaleem and Shahbaz (2009) examined the impact offoreign direct investment on stock market capitalization inPakistan for the period 1971 to 2006. Employing an ErrorCorrection Modelling (ECM) technique and an Autoregressive distributed lag (ARDL) bound testing approach; thestudy observed a positive and significant impact of foreigndirect investment on stock market capitalization both in the long and short run.

Olowe, Mathew and Fasina (2011), in their study of the efficiency of the Nigeria stock exchange between 1979 and 2008 using multiple regression technique in considering the relationship between economic growth and selected capital market variables. They observed a positive significant relationship between economic growth (GDP) and market capitalization and concluded that the variable was vital to Nigeria's economic growth.

Oke (2012) examined the relationship between foreign directinvestment and the Nigeria stock market capitalization for the period 1981to 2010. Employing co-integration and error correctionmodelling techniques, the study observed a positiverelationship between foreign direct

investment and stockmarket capitalization in short run while in the long run thestudy failed to establish any relationship between foreigndirect investment and stock market development in Nigeria.

Bernard and Austin (2012), studied the role of the Nigerian stock market on economic growth from 1994 to 2008. The researchers used the time series analysis adopting the ordinary least square techniques. In the study, the rate of market capitalization was used as a proxy for the stock market size. The results indicate that the market capitalization ratio is weak and negatively correlate with economic growth.

In Pakistan, Syed et al. (2013) examined the impacts of foreigncapital inflows and economic growth on stock marketcapitalization for the period of 1976 to 2011. Employing anARDL bound testing co-integration approach; the studyobserved that foreign direct investment, workers' remittancesand economic growth have significant positive relationshipwith the stock market capitalization both in long run and theshort run. Using of variance decomposition test, the study alsoobserved bi-directional causal relationship of foreign directinvestment and economic growth with stock marketcapitalization while uni-directional causal relationship wasobserved from workers' remittances to stock marketcapitalization.

Popoola (2014), studied the effect of stock market on Economic growth and Development of Nigeria using data covering from 1984 to 2008. The study employed the ordinary least square method of analysis and found a positive significant link between market

capitalization and Economic growth. The study advised that policies be made to strengthen the capital market and reduce tax and legal prohibitions.

Aigbovo and Izekor (2015) investigated the nexus between stock market development and economic growth in Nigeria from 1980 to 2011 using co-integration, error correction mechanism and granger causality tests techniques. The variables employed include GDP, market capitalization. Market turnover ratio, Total value of stock traded and All Share Index. The investigation revealed a positive and significant relationship between economic growth and market capitalization in both short and long run periods.

Adaramola and Obisesan (2015) studied the impact of FDI on Nigerian capital market from 1970 to 2010 using the Ordinary least square regression method and the Co-integration tests. The study employed market capitalization as the dependent variable and FDI and GDP as the independent variables and the result showed a positive and significant relationship in the short run between the variables.

2.3.2 Empirical Studies ofFDI Effects on Market Turnover Ratio

Market turnover ratio is commonly used as a second indicator of liquidity. It gives an indicator of the number of times the outstanding volume of shares changes hands. Turnover ratio equals the value of total shares traded divided by market capitalization. It also indicates liquidity complements traded value to GDP. This indicator measures the size of the stock market while the

former (Market turnover/Market capitalization) measures the relative size of the economy.(Maunder et al,1991; El-Wassal, 2013; Henry, 2000).

Yartey and Adjasi (2007) examined the relationship between foreign Direct investment, Market turnover and GDP between 1996 – 2000 for selected African countries using ordinary least square method and concluded that a positive and significant relationship do exist.

Vagias and van-Dijk (2011) examined the nexus betweeninternational capital flows and local market liquidity for agroup of forty-six countries in six regions for the period1995:1 to 2008:12. Utilizing a vector auto-regressivetechnique, the study observed that international capital flowsto developed Europe and Asia/Pacific positively responded tolocal market liquidity, while U.S. market liquidity positivelypredicted international capital flows to developed andemerging Europe and emerging Asia.

Olowe, Mathew and Fasina (2011), in their study of the efficiency of the Nigeria stock exchange between 1979 and 2008 using multiple regression technique in considering the relationship between economic growth and selected capital market variables. They observed a negative and insignificant relationship between economic growth (GDP) and market turnover ratio.

Otchere et al (2011) investigated the relationship between foreign direct investment, GDP, market capitalization, market turnover ratio and volume of stock traded for African

continent from 1996 to 2009 using Panel data analysis and Granger causality tests. The researchers concluded that a positive significant relationship exists.

Bernard and Austin (2012), studied the role of the Nigerian stock market on economic growth from 1994 to 2008. The researchers used the time series analysis adopting the ordinary least square techniques. In the study, turnover ratio and value of traded stock were used as a proxy for the total market liquidity. The results indicate that the turnover ratio is strong and positively correlates with economic growth.

Popoola (2014), studied the effect of stock market on Economic growth and Development of Nigeria using data covering from 1984 to 2008. The study employed the ordinary least square method of analysis and found a positive significant link market turnover ratio and Economic growth. The study advised that policies be made to strengthen the capital market and reduce tax and legal prohibitions.

Osho (2014) used time series data from 1980 to 2010 to examine the role of stock market development and economic growth in Nigeria. The study used the Multiple-regression method of Ordinary least square in testing the formulated hypothesis and used market capitalization ratio, the value of stocks traded ratio and turnover ratio as independent variables. The result revealed that the turnover ratio assumes positive effect on the dependent variable.

Nwosa (2015) studied the relationship between Foreign Direct investment, Foreign Portfolio Investment, Market capitalization, market turnover ratio and value of stock traded ratio

for Nigeria covering 1986 – 2013 using Error Correction Model. The researchers concluded that while they observed a significant short-run relationship between FDI/FPI and market capitalization only, there was however, no long-run significant relationship between FDI and market turnover ratio nor value of stock traded ratio.

Aigbovo and Izekor (2015) investigated the nexus between stock market development and economic growth in Nigeria from 1980 to 2011 using co-integration, error correction mechanism and granger causality tests techniques. The variables employed include GDP, market capitalization. Market turnover ratio, Total value of stock traded and All Share Index. The investigation revealed a positive and significant relationship between economic growth and market turnover ratio in the short and long-run periods.

2.3.3 Empirical Studies of FDI Effects on Value of Stock Traded Ratio

Value of stock traded is a volume-based indicators – Volume based indicators are most useful in measuring market breath i.e the existence of both numerous and large orders in volumes with minimal transaction price impact. Traded volume/GDP equals the total value of shares traded on the stock market divided by GDP. It measures the organised trading of shares as a percentage of national output and therefore should positively reflect stock market liquidity on an economy widebasis (El-Wassal, 2013; Henry, 2000).

Bernard and Austin (2012), studied the role of the Nigerian stock market on economic growth from 1994 to 2008. The researchers used the time series analysis adopting the ordinary

least square techniques. The turnover ratio and value of traded stock were used as a proxy for the total market liquidity. The results indicate that the value of stock traded ratio is strong and positively correlates with economic growth.

Chauhan (2013) examined theimpacts of foreign capital inflows on stock marketdevelopment for the period 2000:1 to 2011:12. Specifically,the study analysed the impacts of Foreign Direct investment(FDI), Foreign Institutional Investment (FII), and ForeignPortfolio investment (FPI) inflows on the movement ofBombay Stock Exchange (BSE) and National Stock Exchange(NSE). The study employed Ordinary Least Square, KarlPearson's correlation and Analysis of Variance techniques.The findings of the study showed that FDI had the greatesteffect on both Bombay and National stock exchanges up to 61per cent and 86 per cent respectively. The Karl Pearson'scoefficient of correlation showed that foreign directinvestment was highly and positively associated with both themarkets with a score of 0.78 and 0.92 respectively. Further, thestudy observed that FPI had a very low impact on Bombaystock market and a comparative high impact on the National stock exchange while FII had the least impact on bothmarkets.

Lamouchi and Zouari (2013) examined the role played bythe financial development in the influencing capital flows onreal effective exchange rates for thirty-eight developed anddeveloping countries for the period 1989 to 2011. Using adynamic panel co-integration technique, the study observedthat in the long run financial development weaken theappreciation effect of capital flows on real effective exchangerates. Through the calculation of the threshold

value, the studyconcluded that from a certain threshold of financialdevelopment, capital flows can have a real depreciation effecton exchange rates.

In Pakistan, Zafar (2013) examined the relationshipbetween foreign direct investment and stock marketdevelopment for the period 1988 to 2008. The study observeda strong positive relationship between the two variables.

Nyang`oro (2013) examined the relationship betweenforeign portfolio flows and stock market performance inKenya. The study observed that foreign portfolio flows had asignificant and positive effect on domestic stock market returnand that stock market return is affected by lagged unexpectedforeign portfolio flows and not by its contemporaneous value.

Shaibu, Osemwengie and Oseme (2014), studied the effect of capital market activities on economic growth (GDP) in Nigeria from 1975 to 2010 using Var methodology. The study revealed that there exists a positive significant relationship between the value of stock traded and economic growth in Nigeria. Also, that there exist a significant long-run relationship between the dependent and independent variables.

Osho (2014) used time series data from 1980 to 2010 to examine the role of stock market development and economic growth in Nigeria. The study used the Multiple-regression method of Ordinary least square in testing the formulated hypothesis and used market capitalization ratio, the value of stocks traded ratio and turnover ratio as independent variables. The result revealed

that the stock market capitalization and the the value of stock traded are negatively affecting gross domestic product.

Adigwe, Nwanna and Amala (2015), investigated the effect of stock market development on Nigeria's economic growth from 1985 – 2014 using ordinary least square regression technique and discovered a positive significant effect of value of stock traded on economic growth (GDP).

Aigbovo and Izekor (2015) investigated the nexus between stock market development and economic growth in Nigeria from 1980 to 2011 using co-integration, error correction mechanism and granger causality tests techniques. The variables employed include GDP, market capitalization. Market turnover ratio, Total value of stock traded and All Share Index. The investigation revealed a short run positive and significant relationship between economic growth and value of stock traded.

2.3.4 Empirical Studies ofFDI Effects on Number of Listed Securities

The number of listed securities is used as a complementary measure of stock market size. The main advantage of this measure is that it is a proxy for the breath of the stock market and is not subject to stock market fluctuations. Moreover, it is not tainted by possible mis-measurement of GDP, which often happens in many developing countries (Bekaert et al, 2001).

Henry (2000), studied the relationship between FDI and stock market development in eleven (11) Less Developing Countries between 1985 to 1994 using Multi-linear regression

method. The variables studied include; FDI, market turnover, value of stock traded and number of listed stocks. The investigation revealed a positive significant relationship between the FDI and number of listed stocks.

Rajan and Zingales (2003) studied the relationship between FDI and capital market development in 24 countries of the world from 1963 to 1999 using the panel Ordinary least square. The study employed FDI, GDP, Market capitalization, No. of listed securities as variables and the result revealed a significant relationship between FDI and Number of listed securities in the short-run period.

Karolyi (2004), investigated the impact of FDI on Capital market growth in 2 Asian countries from 1982 to 2002 using the Ordinary least square regression method and Granger causality tests. The data used include FDI, Market capitalization, GDP, Value of stock traded and Number of listed shares. The result revealed a negative but significant relationship between FDI and number of listed shares in the short-run period.

Alfaro et al (2004), studied the relationship between FDI and capital market development for 71 emerging market economies from 1975 to 1995 using Ordinary least sqare regression and Co-integration to examine the selected variables namely, FDI, market capitalization, GDP, Value of stock traded and Number of listed shares. The study discovered a positive and significant relationship between FDI and number of listed stocks.

Allen et al (2010),investigated the link between FDI and capital market variables namely – market capitalization and number of listed securities using Ordinary least square regression method and system of simultaneous equations. The study concluded that there exist a positive relationship between FDI and number of listed securities.

Olawoye (2011) conducted a study on the impact of capital market on economic growth of Nigeria using GDP as a proxy for economic growth and market capitalization, new issues, value of transaction and total listing as capital market variables. Multiple regression technique was used for analysis and the results revealed a positive relationship between total listing and economic growth.

Oluwantunsi et al (2013) used data from the central bank of Nigeria from 1999 to 2012 to investigate the impact of capital market and economic growth in Nigeria. Ordinary least square method of analysis was employed. The result shows that all capital market variables can jointly predict economic growth, but at an insignificant rate. The result further showed that number of listed company shares has a negative impact on economic growth.

Okonkwo, Ogwuru and Ajudua (2014) studied the relationship between stock market performance and economic growth in Nigeria from 1981 to 2012 using Co-integration, error correction model and co-integration techniques. The study employed GDP (dependent variable), market capitalization, value of traded stocks and number of listed stocks and discovered among

others, that there exist a positive and significant relationship between number of listed stocks and economic growth in Nigeria.

2.3.5 Empirical Studies ofFDI Effects on All Share Index

The All Share index is a Performance indicator which is used to measure how well a market is performing. All Share Index is a series of numbers which shows the changing average value of the share prices of all companies in a stock exchange. Existing empirical studies have indicated a triangular or Tri-directional relationship between FDI, economic growth and stock market development (Oseni & Enilolobo, 2011). This indicates that FDI will granger cause economic growth, which in turn will granger cause stock market development. Deductively, FDI will affect stock market variables including All share index, which in turn will affect economic growth.

To the best of the researcher's knowledge from reviewed literatures, there were no direct empirical work that studied the short or long-run relationship between FDI and All-share index in Sub-Saharan African countries except for Asaolu and Ogunmuyiwa (2011), who focused only on Nigeria between 1985 and 2010 and could not establish a significant relationship. This we considered a very strong gap to be filled and the theoretical expectations from such a relationship would be a positive and significant relationship consistent with the World Bank (2015) report on expected stock market development indicator index. Additionally, we shall review and rely on literatures that studied the relationship between All-share index and economic growth since

studies have established a triangular relationship between FDI, stock market development and economic growth (Oseni & Enilolobo).

Olowe, Mathew and Fasina (2011), in their study of the efficiency of the Nigeria stock exchange between 1979 and 2008 using multiple regression technique in considering the relationship between economic growth and selected capital market variables. They observed a positive significant relationship between economic growth (GDP) and All-share indexand concluded from their studies that All Share index for evaluating capital market performance is vital to the economic growth of Nigeria.

Olweny and Kimani (2011) studied the performance of stock market in relation to economic growth in Kenya from 2001 to 2010 using cointegration, VAR model and granger causality test methods. The variables employed in the study include GDP (dependent variable), Inflation and All-Share index. The study revealed the existence of a positive and significant long run relationship between GDP and All Share index in Kenya.

Echekoba, Ezu and Egbunike (2013), studied the impact of stock market on the Nigerian economy during democratic rule between 1999 and 2011 using multivariate regression model. Their investigation revealed a positive significant effect of All-Share index on economic growth (GDP).

Ifionu and Omojefe (2013), studied the Performance of the capital market in the Nigerian economy between 1985 and 2010 using the time series analysis comprising of ordinary

regression model and error correction model, and discovered a positive and significant relationship between All-Share index and economic growth (GDP). The study used the cointegration analysis technique to establish a strong positive correlation between All share index and economic growth and recommended the pursuit of policies that focus on improving the depth and breadth of the capital market.

A study conducted by Oke (2013) on the impact of capital market operations on economic growth in Nigeria from 1985 to 2011 showed a positive significant relationship between the operation of capital market and economic growth. While the market capitalization and number of dealing showed a negative relationship with economic growth. The All-Share index showed a positive impact on the long-term economic growth (GDP) and FDI.

Also, Shaibu, Osemwengie and Oseme (2014), studied the effect of capital market activities on economic growth (GDP) in Nigeria from 1975 to 2010 using Var methodology. The study revealed that there exists a positive significant relationship between the All-share index and economic growth in Nigeria. Also, that there exist a significant long-run relationship between the dependent and independent variables.

Popoola (2014), studied the effect of stock market on Economic growth and Development of Nigeria using data covering from 1984 to 2008. The study employed the ordinary least square method of analysis and discovered a positive significant effect of All-Share index on Economic growth and advised that policy makers should focus more on policies that

will improve the activities of the stock market such as tax incentives, legal and regulatory concessions.

Akpan and Chukwudum (2014), studied the behaviour of the Nigerian Stock Exchange All Share Index (NSE ASI) to the changes in the central bank of Nigeria's (CBN) interest rate over a period of 25 years (1986 – 2011). The study used the Bivariate and Multivariate regression analysis models on All Share Index as dependent variable, while interest rate, inflation rate, Unemployment and GDP were the independent variables. The study discovered an insignificant relationship between ASI and macroeconomic variables (GDP).

Aigbovo and Izekor (2015) investigated the nexus between stock market development and economic growth in Nigeria from 1980 to 2011 using co-integration, error correction mechanism and granger causality tests techniques. The variables employed include GDP, market capitalization. Market turnover ratio, Total value of stock traded and All Share Index. The investigation revealed a a short run negative and significant relationship between economic growth and All Share index.

Gumus (2015), studied the relationship between foreign investment and major economic and financial indicators in Turkish economy from 2003 to 2013 using Granger causality analytical technique. The data employed include FDI, FPI, interest rate, Exchange rate and Istanbul All-Share index. The results showed that Istanbul All-Share index Granger causes both FDI and FPI while the FDI Granger causes Istanbul All-Share index significantly.

2.3.6 Empirical studies on Causal Effect of FDI on Stock Market Development

The literature addressing the link between FDI and Stock market development is very limited. For instance, Hermes and Lensink (2003) observed a unidirectional relationship between FDI and FMD along with Alfaro et al (2004) while Dutta and Roy (2011) established a Non-linear association between the variables.

Karolyi (2004) investigated the causal relationship between FDI and stock market development covering 1982 to 2002 and discovered no causal relationship but, Kholdy and Sohrabian (2005) studied the causal relationship between FDI and market capitalization for 25 countries from 1975 to 2002 and concluded from their studies that there exists a Bi-directional relationship. However, Al Nasser and Soydemir(2010) conducted Granger causality tests between FDI and financial development variables forLatin American countries. They show a unidirectional relationship from banking sector development to FDI and not the reverse; the relationship between FDI and stock marketdevelopment is bidirectional. Their explanation is that FDI can initially promote stock marketdevelopment because of the investment opportunities that FDI-related spillover effects usuallygenerate: a more developed stock market may then attract more FDI in turn.

Olweny and Kimani (2011) studied the performance of stock market in relation to economic growth in Kenya from 2001 to 2010 using cointegration, VAR model and granger causality test methods. The variables employed in the study include GDP (dependent variable), Inflation and All-Share index. The study revealed the existence of a positive and significant long run

relationship between GDP and All Share index and a bi-directional relationship between FDI and stock market development variables in Kenya.

Okodua and Ewetan (2013), examine the causal relationship between stock market performance and sustainable economic growth in Nigeria. They applied bound testing co-integration approach from 1981 to 2011. The variables used were gross domestic product, market capitalization, value of traded securities, average dividend yield, interest rate and financial depth. The result showed that there exists a significant long-run and a uni-directional causal relationship between the dependent and independent variables.

Ifionu and Omojefe (2013), in their studies also investigated the direction of causal relationship between capital market and economic growth in Nigerian economy over a 26 year period from 1985 – 2010, discovered a linear causal relationship between the market capitalization and economic growth (GDP). The study concluded that there is a strong positive correlation between economic growth (Independent variable) and market capitalization (dependent variable) and that policy makers should focus on policies that will strengthen the depth and breadth of the Nigerian capital market.

Issouf and Fulbert (2015) performed an empirical assessment of direct causal relationship between FDI and financial market development using panel data from emerging markets with a system of simultaneous equations and held that there is a two-way link between FDI and stock market development in studied emerging markets. On the one hand, foreign investment helps

develop local stock markets by its investment spillover effects. This is because more foreign investment increases the likelihood that the affiliates of multinationals involved in FDI activities will be listed on local stock markets, since multinationals tend to hail from industrialized countries where financing through the stock market is a tradition. Furthermore, consistent with the political economy argument, one can conjecture that FDI inflows encourage the country's political elite to adopt market-friendly regulations—especially investor protection and better governance regulations: this promotes the development of the stock market. On the other hand, a relatively well-developed stock market helps attract foreign investors, as such, a market is perceived as a sign of vitality, of openness on the part of country authorities, and of a market-friendly environment. This is especially true in emerging markets, whose stock markets are more developed than are the markets of other developing countries. Hence, Soumare and Tchana (2015) documented a bi-directional causality between FDI and stock market development variables along with the World Bank (2015).

2.4 Long-run Equilibrium Effects of FDI on Stock Market Development

A study of this nature will be incomplete if we do not investigate through diagnostic testing whether there exists a Long-run equilibrium effectof FDI on Stock Market Development indicators, as there appears to be huge disagreement on its existence or nature. For example;

Nyong (1997), investigated the link between long-term economic development and Nigerian stock market development using time series data drawn from 1970 to 1994. A composite stock market development index was computed and the result showed a negative and

significant long-run relationship between stock market development indicators and economic growth.

Levine and Zervos (1998) investigated the effect of FDI on stock market Development and found that there was a positively significant long-run effect of capital market development indicators on FDI.

Osinubi (2002), examined whether the stock market promotes economic growth in Nigeria. The study used the ordinary least square regression and cointegration technique from 1980 to 2000. The researchers used production function approach to develop the model. The variables in the model include capital market index, comprising of market capitalization ratio, new issue and value of transaction ratio and the result of the study showed a positive and insignificant correlation between the measures of capital market and long-term economic growth.

Oke and Makuolu (2004), used annual data from 1986 to 2002 to investigate the degree of correlation between stock market development and economic growth in Nigeria. The stock market turnover and the total value of traded stock were used as a measure of the stock market. Their findings indicates the existence of a positive and significant relationship between the dependent and independent variables in both short and long term periods.

Adam and Tweneboah (2009) admits that they found a significant positive long-run relationship between FDI and FMD in the Ghana stock market but Oke (2012), concluded that

there was no long-run relationship between FDI and FMD in their study of the impactof FDI on financial market development.

Also, Lamouchi and Zouari (2013) discovered a Negative long-run relationship to support the findings of Singh and Weisse (1998) of a Negative long-run relationship but Kaleem and Shahbaz (2009) and Sulaiman and Mohammed (2014) both observed a positive long-run relationship between FDI and FMD. The principal variable used for this cointegration tests was market Capitalization (Adamand Tweneboah, 2009).

Okodua and Ewetan (2013), examined the relationship between stock market performance and sustainable economic growth in Nigeria. They applied bound testing co-integration approach from 1981 to 2011. The variables used were gross domestic product, market capitalization, value of traded securities, average dividend yield, interest rate and financial depth. The result showed that there exists a significant long-run relationship between the dependent and independent variables.

Ifionu and Omojefe (2013), in their study of the relationship between capital market and economic growth in Nigerian economy over a 26 year period from 1985 – 2010, discovered that market capitalization had a positive significant long-run relationship with economic growth (GDP). The study concluded that there is a strong positive correlation between economic growth (Independent variable) and market capitalization (dependent variable) and that policy makers

should focus on policies that will strengthen the depth and breadth of the Nigerian capital market.

A study conducted by Oke (2013) from 1985 to 2011 showed a positive significant relationship between the operation of capital market and economic growth. While the market capitalization and number of dealing showed a negative relationship with economic growth. The All-Share index showed a positive impact on the long-term economic growth.

Shaibu, Osemwengie and Oseme (2014), studied the effect of capital market activities on economic growth (GDP) in Nigeria from 1975 to 2010 using Var methodology. The study revealed that there exists a positive significant long term relationship between capital market indicators and economic growth in Nigeria.

Adaramola and Obisesan (2015) studied the impact of FDI on Nigerian capital market from 1970 to 2010 using the Ordinary least square regression method and the Co-integration tests. The study employed market capitalization as the dependent variable while FDI and GDP were the independent variables and the result showed a positive and significant relationship in the short run between the variables and No long-run relationship.

From the above literatures consulted, it was evident thatmost studies dwelt on the impact of capital inflows (withparticular focus on foreign direct investment) on stock market development (with particular reference to marketcapitalization) while only a few examine the role of stockmarket development in attracting capital inflows. Furthermore,previous studies paid

little attention to other types of capitalinflows (such as foreign portfolio investment) and to other measures of stock marketdevelopment (such as turnover ratio and value traded ratio)which measure the liquidity of the stock market (Levine& Zevros, 1998) and to best of researcher's knowledge in the SSA context, only Asaolu and Ogunmuyiwa in Nigeria paidlimited attention to the All Share Index as a development measurement indicator but with an insignificant outcome.

Empirical literature on the effect of foreign direct investment on stock market development done by Adams, Anokye et al (2008), Sulaiman and Mohammed (2014), Adaramola and Obisesan (2015),Soumare and Tchana (2015), and Nwosa (2015) provides an empirical framework adopted in this study.

2.5 Critique of Literature

Table 5. SUMMARY OF SOME SELECTED GLOBAL EMPIRICAL WORKS

Authors	Evidence From	Period	Methodology	Variables	FDI Impact
1. Levine and Zervos (1997)	40 countries	1976-1993	GMM	GDP, Mkt cap and Bank Credit	Positive Relationship
2.Nyong (1997)	Nigeria	1970 – 1994	OLS and Cointegration	GDP, Mcap, val stock Traded, No. listed shares	Negative long-run relationsip
3. Singh and Weisse (1998)	India	1980-1996	OLS and Co-integration	FDI, GDP, M2, Mkt Cap	Negative Long-run Relationship
4. Levine and Zervos (1998)	North Americ countries	1970-1995	OLS and Cointegration	FDI,GDP, Mkt cap Total value of shares traded and Market turnover ratio	Positiveand significant in the long-run period.
5. Henry (2000)	11 LDC	1985-1994	Multi-linear Regression	Mkt turnover, FDI Value of stock traded	Positively significant
6. Levine et al (2000)	40 Emerging market	1960-1995	GMM	FDI, GDP Private Credit	Positively significant
7. Bekaert et al (2001)	76 Europe Countries	1980-1997	OLS, GMM	FDI, GDP, Mkt Cap, Mkt Turnover	Positive and Significant
8.Osinubi (2002)	Nigeria	1980 – 2000	OLS, Cointegration	GDP, Mcap, val stock Traded, No. listed share	Positive and insignificant long-relationship

9. Kohli (2003)	India	1980-2000	OLS	FDI, M2, Mkt Cap	Positive Significant Relationship
10. Ndikumana (2003)	Africa	1970-2004	Cointegration	FDI, GDP and EXR	Positive Significant
11. Rajan and Zingales (2003)	24 Global countries	1963-1999	OLS	FDI, GDP, Mkt Cap, No.listed Stocks, Value of Traded stocks, Deposit to GDP	Significant Relationship
12. Karolyi (2004)	2 countries	1982-2002	OLS, Granger Causality	FDI, GDP, Mkt Cap, No.listed stocks Value of traded stock	Negative but Significant relationship
13. Oke and Makuola (2004)	Nigeria	1986 – 2002	OLS, Cointegration	GDP, Mcap, val stock Traded, stock turnover ratio	Positive and significant relation In short and long-run
14.Alfaro et al (2004)	71 Emerging countries	1975-1995	OLS, Cointegration	FDI,Mkt Cap, GDP,Value of stock Traded,No.listed stocks	Positive, Significant and Unidirectional Relationship.
15. Kholdy andSohrabian (2005)	25 countries	1975-2002	Granger Causality Test	FDI, GDP and Mkt Capitalization	Bi-directional relation
16. Desai et al (2006)	USA, UK Italy	1999-2005	OLS	Mkt Cap, FDI and Cost of Capital	Significant Relatioship
17. Parthapratim(2006)	India	1982-2004	OLS	FPI, Mkt Cap, GDP.	Positive but insignificant Relationship between FPI and Mkt Cap.
18.Otker-Robe et al (2007)	Europe	1994-2005	OLS	Mkt Cap, FDI, GDP	Positive and Significant Relationship
19. Yartey and Adjasi (2007)	Sub-Sahara Africa	1996-2000	OLS	GDP. Mkt Cap Mkt Turnover Trade Openness	Positive and Significant
20. Yartey (2008)	Panel Data of 42 countries	1990-2004	OLS, GMM	FPI,FDI,Mkt Cap, Mkt Turnover, Value of Stock Traded, GDP	Positive and Significant Relationship.
21. Adam, Anokye et al (2008)	Ghana	1991-2006	Multivariate cointegration Tests	FDI, Market capitalization, GDP, Exchange rate	Significant Positive impact on Stock market Development
22. Kaleem and Shahbaz (2009)	Pakistan	1971-2006	ARDLand ECM	FDI, Mkt Cap	Positive significant relationship Both in the Short-run and Long-run
23.Allen et al (2010)	Africa	1988-2008	OLS andSystem of simultaneous equations	GDP, Mkt Cap, No. of Listed securities	Positive Relationship
24. Al Nasser and Soydemir (2010)	Latin America	1970-2008	Granger Causality Tests.	FDI, Mkt Cap and Mkt Turnover	Significant Positive Relationship.
25. Senbet andOtchere	Emerging Market	1996-2009	OLS	Mkt Cap, FDI Mkt turnover	Positive
26.Otchere et al (2011)	Africa	1996 - 2009	Panel data analysis and Granger Causality	Stock mkt cap., Stock value traded Mkt turnover, FPI	Positive Significant Relationship.
27.Allen, Otchere and Senbet (2011)	Africa	1996-2009	Granger Causality	Mkt Cap, value of st Stock traded, mkt	Positive significant Relationship

			OLS	Turnover, FDI	
28. Vagias and van-Dijk (2011)	46 Europe and Emerging Asia	1995 - 2008	VAR	FDI, Mkt Cap	Positive Significant Relationship
29. Olowe, Mathew and Fasina (2011)	Nigeria	1979 – 2008	OLS	GDP, Mcap, val stock Traded, Market turnover	Positive significant relations
30. Olweny and Kimani (2011)	Kenya	2001 – 2010	Cointegration, Var and Granger causality	GDP, ASI and Inflation	Positive and Significant lon Relationship between GDP and ASI.
31. Asaolu and Ogunmuyiw (2011)	Nigeria	1985 - 2010	OLS and cointegratic	FDI, GDP, Exchange rat ASI, Inflation rate	Established insignificant Relationship between FDI a
32. Oke (2012)	Nigeria	1981 - 2010	Co-integration and ECM	FDI, Mkt Cap	Positve relationship in the short-run but No relationship in the Long-run
33.Idowu and Babatunde (2012)	Nigeria	1986-2010	OLS and Chow-forecast Test	Mkt Cap, FDI, Credit	Positive Significant Relationship FDI and Mkt Cap; Credit negative Impact with Stock mkt
34. Alajekwu andAchugbu (2012)	Nigeria	1994 – 2008	OLS	GDP, Mcap, val stock Traded, Market turnover	Strong positive relationship Between val of stock traded Economic growth.
35. Nyang`oro (2013)	Kenya		OLS	FDI, Mkt Cap	Positive Significant
36. Zafar (2013)	Pakistan	1988 - 2008	OLS	FDI, Mkt Cap	Positive Significant
37. Lamouchi and Zouari (2013)	38 dev. and Emerging countries	1989 - 2011	Dynamic Panel Co-integration Tech.	FDI, EXR, Mkt Cap	Negative Significant relationship in theLong-run
38.Chauhan (2013)	India	2000 - 2011	OLS, Karl Pearson and Anova Tech.	FDI, FPI, Mkt Cap	Positive and Significant Relationship
39. El-Wassal (2013)	Egypy	1980-2012	Theoretical Review	FDI, GDP, Mkt Cap, No.listed shares Mkt Turnover	Not defined in both short and long-runs
40. Aduda et al (2013)	Kenya	2005-2009	OLS	Mkt Cap, FPI, Inflation, Mkt Turnover ratio	Shows No relationship
41. Eniekezimene (2013)	Nigeria	1980-2010	OLS, ECM and Cointegration	FDI, FPI, Mkt cap	Significant and Positive Relationship in both short andLong-run
42. Syed et al (2013)	Pakistan	1976-2011	OLS, ARDL Cointegration	FDI,GDP, Mkt Cap	Positive, Significant Relationship in Short and Long run. Unidirectional in Short run but Bidirection in long-run.
43.Ifionuand Omojefe (2013)	Nigeria	1985 – 2010	Cointegration	GDP, Mcap, Value of Stock traded,	Positive significant long-run Relationship
44. Echekoba , Ezu and Egbunike (2013)	Nigeria	1999 – 2011	Multivariate regressi model	ASI, GDP and Mcap	Positive significant effect

45. Okodua and Ewetan (2013)	Nigeria	1981 – 2011	Bound cointegration testing	GDP, Mcap, val stock Traded, dividend yield, Interest rate and fin. dep	Significant long-run Relationship
46. Oluwantunsi et al (2013)	Nigeria	1999 - 2012	OLS	GDP, Mcap, val stock Traded, No. listed share	No. of listed shares had neg Impact economic growth
47. Shaibu, Osemwengie an Oseme (2014)	Nigeria	1975 – 2010	Var methodology	GDP, Mcap, Value of st traded	Positive significant long-run Relationship btween econor Growth and stock market in
48. Popoola (2014)	Nigeria	1984 – 2008	OLS	GDP, Mcap and ASI	Positive significant relations Between ASI and economic
49. Akpan and Chukwudum (2014)	Nigeria	1986 - 2011	Bivariate and Multiva Regression method	ASI, GDP, Inflation and Interest rate	Insignificant relationship be and economic growth (GDP
50. Sulaiman and Mohammed (2014)	Nigeria	1981 – 2010	Johansen cointegratic and ECM	FDI, GDP, Inflation, Forex and Mkt cap	Long-run positive relationsh that is insignificant.
51. Osho (2014)	Nigeria	1980 – 2010	OLS	GDP, Mcap, val stock Traded, market turnover	Negative and significant rel Between GDP and Val of st
52. Okonkwo, Ogwuru and Ajudua (2014)	Nigeria	1981 - 2012	Granger causality, ECM and Cointegrati	Mkt Cap. V. stocks trade No. listed stocks, GDP	Positive and significant rela
53. Nyasha and Odhiambo (2015)	South-Afric	1980 - 2012	ARDL and Granger causality	GDP, FDI, Savings and Mkt cap	There is short and long-run Relationship between Mkt c GDP and unidirectional cau relationship.
54. Aigbovo and Izekor (2015)	Nigeria	1980 - 2011	Cointegration, ECM Granger causality	GDP, ASI, Mkt cap, val Stock traded Mkt turnov	Short-run negative and signi relation Relationship between GDP
55. Adaramola and Obisesan (2015)	Nigeria	1970 – 2010	Cointegration and OLS	FDI, GDP and Mkt cap.	Significant Positive impact market growth.
56. Soumare and Tchana (2015)	44 Emerging markets	1994 – 2006	Causality tests and GMM2	FDI, Mkt cap, Turnover and Value traded ratio.	Bi-directional causal relatio Positive and significant rela
57. Nwosa (2015)	Nigeria	1986 - 2013	ECM	FDI, FPI, Mkt Cap, Turr and valu. Traded ratio	1.Mkt cap and Val traded ra significant influence with FI None of the stock mkt indic Had significant influence or In the long-run. 2.Only Mkt cap had signific On FDI in the short run
58. Gumus (2015)	Turkey	2003 - 2013	Granger causality, OLS, Cointegration	FDI, FPI, Exch.rate, Interest rate and ASI	Significant relationship betv FPI and ASI.
59.Ngongang (2015)	Sub-Saharar Africa	2000 – 2014	GMM	GDP, Corruption idex, Political Stability, Inflati Rate, Mkt cap	Established positive link bet Financial Mkt development economic growth.
60. Adigwe, Nwanna and Amala (2015)	Nigeria	1985 – 2014	OLS	GDP, Mcap, val stock Traded, Market turnover	Positive significant relations GDP and value of stock trad

Source: Author's compilation from reviewed literature, 2017.

2.6 Summary of Literature

The aim of this study was to examine the effect of foreign direct investment on stock market development. In doing so Chapter two provided the Conceptual and theoretical foundation as well empirical evidence for the study. In this endeavour two classes of theories were discussed. Theories discussed include theories on Foreign Direct Investment (FDI) and Stock Market Development.Eclectic theory and Industrial organisation theory were explored under FDI theories while the stock market theories examined the weak form, semi-strong form and the strong form of the Efficient Market Hypothesis. Theories on FDI identified a number of factors important in attracting FDI by host countries and its various determinants. A comparison was made between FDI and foreign portfolio investment (FPI) and the mainstream view was equally considered under the FPI.The origin of stock market was also reviewed and specific emphases were given to three selected stock exchanges within the sub-sahara African region. The Dunning Ecclectic theory of FDI and Efficient Market Hypothesis theory of stock market were considered under the theoretical framework and finally several research works of notable authors around the world as well as locally were reviewed.

From the literatures reviewed, over 85% of the studies focused mainly on single country while a patry 15% constituted comparative studies. While less than 50% of the comparative study focused on Africa and very few looked at the Sub-Sahara African region intently. The variables used in most cases were FDI, Value os stock traded and Market Capitalization and less than 10%

of the consulted works used the World Bank (2015) parameters for measuring stock market development.

2.7 Gap in Literature

From table 6 and other reviewed literatures, majority of the works done to examine the effect of FDI on Stock Market Development revealed the following gaps;

i) Most focused on single country analysis (Adam, Anokiye et al, 2008; Desai et al, 2006; Nwosa, 2015; Oke, 2012; Chauhan, 2013)

ii) There were limited comparative work on Africa as a continent (Otchere et al, 2011)

iii) To the best of researcher's knowledge, there were very limited Comparative works on the Sub-Sahara African region with its peculiarities.

iv) The variables of study for the majority of the works did not adequately capture stock market developmentmeasurement parameters as stipulated by World Bank (2015), thereby rendering the results of such an exercise suspicious and error prone

v) The analytical methods adopted in most cases for data that are panel in nature were considered inappropriate especially data sharing both time series and panel data series characteristics (Rajan & Zinghales (2003), which used OLS technique for a 42 country studies; Karolyi (2004) used OLS technique for a 2-country study; Alfaro et al (2004) used OLS methodology for a 71 country study; Senbet & Ochere (2010) used OLS technique for an 11 country study) .

vi) There were clear inconsistencies and disagreements in some of the results obtained by various researchers particularly when compared with the apriori expectations. (World Bank, 2015; Adam, Anokye et al, 2008; Soumare & Tchana, 2015; Nwosa, 2015; Oke, 2012;Lamouchi & Zouari, 2013;Singh & Weisse, 1998.)

vii) To the best of researcher's knowledge, Majority of the works consulted did not consider the All Share Index variable in assessing the extent of development of the stock markets particularly in relation to foreign direct investment, which we considered a very strong parameter in the Sub-Sahara African region stock markets as a development indicator.

viii) Previous studies did not incorporate the impact of insurgencies or national security challenges on attracting or disattracting FDI for stock market development.

This study will ride on the above listed observed gaps to cover the following:

i) Present a more current work on the subject (1984-2015)covering 32 years as earlier works covered a scope of 20years to 25 years and add to existing literatures.

ii) Undertake a comparative country study of selected countries within the sub-saharan African region – which to the best of researcher's knowledge had not been previously done.

iii) Use more precise capital market development measurement parameters as stipulated by the World Bank (2015). The variables to be used will include: Market

capitalization,number of listed securities, stock market turnover ratio, and value of listed shares aswell as the All Share Index.

iv) Validate existing findings of erudite scholars from studies on the Effect of FDI on stock market development.

v) Adoption of a more flexible and robust statistical Analysis technique that will accommodate panel data features – use of the Panel Data Eviews Generalised Least Square method (EGLS)

vi) Introduction of the All Share Market Index in assessing extent of stock market development not previously considered by the World Bank.

vii) Previous studies did not incorporate the impact of insurgencies or national security challenges on attracting or disattracting FDI for stock market development. This we shall incorporate in this study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Design

The study adopts the ***ex post facto***research method which is a very common and ideal method in conducting research in business and social sciences. It is mostly used where variables are drawn from already concluded events and there is no possibility of data manipulation.As for this work, there are two key reasons for the choice of the ex post facto method. Firstly, the data is secondary and is ex post from the World Bank, National Bureau of statistics and Central Banks of selected sub-saharan African country sources.Secondly, the reported figures or proxies for the variables of interest are not susceptible to the manipulations or doctoring of the researcher because, they are information in public domain and are easily verifiable.

3.2 Sources and Nature of Data

The data for this work are secondary data drawn from the World Bank statistical data bank,International Monetary Fund (IMF), the data base of the National Bureau of Statistics of the various study country, the statistical bulletin of the Central Bank of Nigeria, statistical bulletin of the Central Bank of South Africa and the Central Bank of Kenya for the range of years under study.

3.3 Model Specification and Validity

This research work adopts the model of Adam and Tweneboah (2008), Adaramola and Obisesan (2015), Desai, Foley and Hines (2006), Issourma and Tchana (2015) and Nwosa (2015) with slight modifications (for example; removal of non-variable of interests such as Inflation rate,

Treasury bills and Exchange rates etc and inclusion of stock market development variables only). The researchers expressed stock market development indicators as a function of FDI with GDP acting as a moderating variable (to help moderate the output from this study in line with parameter ratios used).

To examine the effect of FDI on market capitalization, Values of stock traded ratio to GDP, Turnover ratio, Number of listed securities, All Share index, the multivariate models estimated are below:

MCAP = f(FDIR, GDP) 3.1

VSTR = f(FDIR, GDP) 3.2

TUNR = f(FDIR, GDP) 3.3

NLSS = f(FDIR, GDP) 3.4

ASII = f(FDIR, GDP) 3.5

The independent variable known as X which in above equation is FDIR, is the gross of all foreign direct investment types (X_1, X_2, X_3) as available data did not make provision for the individual components. The Stock Market Development indicators (namely - market capitalization (MCAP), Values of stock traded ratio to GDP (VSTR), Turnover ratio (TUNR), Number of listed securitie (NLSS)s, All Share index (ASII)) are the Dependent variables and the foreign Direct Investments Ratio (FDIR) was the Independent variable. The essence of the GDP in the model is to act as a moderating variable since most of the dependent variables are expressed as a ratio of the GDP.

These models were transformed to log-linear econometric format to obtain the coefficient of the elasticity of the variables, while reducing the effect of any outlinear variable. In the log-linear regression, the coefficients are easy to interprete as the problems of different units have been solved and the interpretation becomes easy in elasticity terms. Findings with log linear modeling specification are sensitive to functional form (Kalim, 2009) while Layson (1984) argued that log linear is superior to linear form and gives more favourable results. We introduce National security, NS as a dummy variable in above model to carter for impact of security concerns in attracting FDI into the stock markets and utilized when analyzing our panel data.

Thus;

$$\log MCR_t = \alpha_0 + \alpha_1 \log FDIR_t + \alpha_2 \log GDP_t + \alpha_3 \log NS_t + U_t \quad \ldots\ldots\ldots\ldots\ldots 3.6$$

$$\log VSTR_t = \alpha_0 + \alpha_1 \log FDIR_t + \alpha_2 \log GDP_t + \alpha_3 \log NS_t + U_t \quad \ldots\ldots\ldots\ldots\ldots 3.7$$

$$\log TUNR_t = \alpha_0 + \alpha_1 \log FDIR_t + \alpha_2 \log GDP_t + \alpha_3 \log NS_t + U_t \quad \ldots\ldots\ldots\ldots\ldots 3.8$$

$$\log NLS_t = \alpha_0 + \alpha_1 \log FDIR_t + \alpha_2 \log GDP_t + \alpha_3 \log NS_t + U_t \quad \ldots\ldots\ldots\ldots\ldots 3.9$$

$$\log ASI_t = \alpha_0 + \alpha_1 \log FDIR_t + \alpha_2 \log GDP_t + \alpha_3 \log NS_t + U_t \quad \ldots\ldots\ldots\ldots\ldots 3.10$$

$$\log MCR_t = \sum \alpha_1 \log FDI_t + \sum \alpha_2 \log GDP_{1-t} + \sum \log MCR_{1-t} + \sum \log NS_{1-t} + U_t \quad \ldots\ldots\ldots 3.11$$

3.4 Descriptions of Variables, Sample Size and Areas of Study

This study focuses on selected economies in the Sub-saharan Africa namely:Nigeria, South Africa and Kenya; our choice of three (3) countries sample is based on the submission of Patton (2002) that purposeful sampling may be selected for information-rich cases and need for most effective use of limited resources by the researcher(s); thus, this research workrandomly chose

the countries of study based on their large Gross Domestic Product, size and extent of stock market capitalization in Sub-Saharan Africa.

The study employed as its dependent variables: the stock market capitalization, Number of listed stocks, Market Turnover ratio to GDP, Value of stocks traded and the All Share index of all listed companies in the Nigeria Stock Market, Johannesburg Stock Market and the Nairobi Stock Market while the independent variable was foreign direct investment and gross domestic product presence was to moderate our output. The sample period covered by the study was from1984 to 2015 representing a 32 year period covering the aspects dealing with our data for statistical analyses. The choice of 1984 is due to the fact that detailed computations of data for most sub-saharan African countries date back to 1984. The choice of 2015 as the upper limit is to ensure currency of data to be used.

Where: **MCR =**Market Capitalization ratio to GDP and is the total market value of the sharesoutstanding of a publicly traded company to the gross domestic product. (This variable was used by; Adam-Anokye et al,2008; Karim, 2009; World Bank,2015)

VSTR = Value of Securities traded and is the ratio of total value of stocks traded within the period to its corresponding gross domestic product for same period (Otchere et al, 2011)

TUNR= Turnover Ratio and Turnover ratio is the total value of shares traded during the period dividedby the average market capitalization for the period (Otchere et al, 2011)

NLS = Number of Listed Shares and These are incorporated companies listed on the country's stock exchanges at the end of the year. (Allen et al, 2010)

ASI= All Share Index is a series of numbers which show the changing average value of theshare prices of all companies in a stock exchange, and which is used as a measure of how well a market is performing. (Roza et al, 2012)

FDIR =Foreign Direct Investments and refers to the volume of foreign capitals inflowed into adomestic company by foreign investors and institutions for investment activities to ratioof GDP(Otchere et al, 2011)

GDP = Gross Domestic Products and it refers to the level of economic and financial activities ortransactions brought into an economy through the activites of the stock market anddomestic foreign investments. (Desai et al, 2006)

NS= National Security included as dummy variable (Oriakhi & Osemwengie, 2012)

3.5 APRIORI EXPECTATION

The apriori expectations adopted the World Bank findings (2007 and 2015), AdamandTweneboah (2008), Suleiman and Mohammed (2014), Adaramola and Obisesan (2015), Desai, Foley and Hines (2006), Issourma and Tchana (2015); which all stated a positive significant relationships between the stock market development parameter indicators and the Foreign direct investments.

Under this model testings, we limited the cointegration testing to stock market capitalization being the major variable of study and apriori reasoning that the volume of stock

traded will flow in the same direction as market capitalization (Levine and Zervos, 1998; Adam and Tweneboah, 2008; Adaramola and Obisesan 2015).

3.6 **Techniques of Data Analyses**

Several data analyses techniques shall be employed for the purposes of analyzing the collected data set and drawing conclusions based on them. The following analytical techniques and steps shall be followed:

i. Diagnostic Tests
ii. Test for Stationarity (Unit Root Test)
iii. Cointegration Test
iv. Regression Analyses
v. Granger Causality Test

3.6.1 **Diagnostic and Standard Tests**

This is a test for the data behavior and goodness for the purposes of using them for the model estimation. This covers basic or descriptive statistics like skewness, kurtosis, normality, mean, median, variance, standard deviation etc. the mean, median and mode would be used to test the aggregative tendencies of the data set while variance, standard deviation, minimum and maximum would test spread and variability of the data sets.

The Jaque-Bera test for normality will be conducted to confirm that the data is normally distributed. According to Jacque and Bera (1980) the null hypothesis is a joint hypothesis of the skewness being zero and the excess kurtosis being zero. Samples from a normal distribution have

an expected skewness of 0 and an expected excess kurtosis of 0 (which is the same as a kurtosis of 3).

3.6.2 **Test for Stationarity**

In carrying out this research work, it is important to test the stationarity properties of the time series. It has been observed of late that the body of statistical estimation theory is based on asymptotic convergence theorems which assume that the data are stationary and do not have mean reverting characteristics. In real life and with time series data, the asymptotic assumption most often does not hold. This implies that the data are found to be non-stationary as opposed to stationarity assumption.

The problem of stationarity lies with the fact that spurious regression commonly arises where the non-stationary series are used. Analyses and decisions based on such assumption of correlation in the light of spuriousness would not be quite dependable.

This is a test of stationarirty or non-stationarity in a data. By stationarity, we mean that the 'mean' and 'variance' are constant over time and the value of the covariance between the two time periods depends only on the distance or lag between the two time periods and not the actual time at which the covariance is computed. Using the Augmented Dickey Fuller (ADF) Test (Fuller, 1976; Dickey and Fuller, 1979) the model is as follows:

$Y: = Py_{t-1} + e_t$

Where P=1

However, we regress Y_t on its (one period) lagged value Y_{t-1} and find out if estimated p is statiscally equal to 1.

The Philip Peron (1988)test(PP) is different from the ADF test in that it makes provision for a drift term, time trend or structural break or shifts. It shall be used as a confirmatory test for ADF unit root test given that the model for PP most often produces the same result as the ADF (Brooks, 2008).

3.6.3 **Test for Serial Correlation**

In a time series or panel data model, this is correlation between the errors in different time periods. A series is said to be serially correlated where the data are correlated across time and the errors arise from adjacent time periods. It could either be positive or negative serial correlation:

$$\text{Corr}(u, u_s) \neq 0$$

A suspicion of serial correlation may be corrected using;

The Durbin-Watson (DW) Statistics: A test for first order autocorrelation, i.e. a test for whether a (residual) series is related to it's immediately prceeding values. One way to motivate the test and to interprete the test statistic would be in the context of a regression of the time t error on its previous value. (Durbin and Watson, 1951).

$$U_t = pu_{t-1} + v_t$$

Where: u_t= Error term at time t; p = Probability values; v_t= Variable at time t.

The Breusch-Godfrey Statistics: This is a joint test for autocorrelation that will allow examination of the relationship between the mean of the error term and its lagged values at the same time. The Breusch-Godfrey test is a more general test for autocorrelation up to the rth order (Godfrey 1978, Pagan and Godfrey 1979).

3.6.4 Test for Heteroscedasticity

This is when the assumption of homoscedasticity is violated by the variables in the model. It is a situation where the variance of the error term is not constant.The presence of this error will make the regression estimators not to be best linear unbiased estimators (BLUE) any longer. Ways to correct this will include use of Arch tests (1980); Generalized Least Square (GLS); Use of log-linear models (Brooks, 2014).

3.6.5 Test for Multicollinearity

This is said to exist when the same explanatory variable is inadvertently used twice in a regression and in such a case the model parameters can not be estimated. This can be corrected by: ignoring it; dropping one of the collinear variables or by transforming the highly correlated variables (Brooks, 2014).

3.6.6 Test for Ramsey Reset Specification

Ramsey's (1969) Reset test is a general test for misspecification of functional form. It is also known as non-linearity test. It reveals a situation where the share of the regression model estimated is linear but it should have been non-linear. It is essentially a model stability tests and helps to give strong level of reliability to the results of the model.

3.6.7 **Cointegration Tests**

When time series variables are non-stationary, it is interesting to see if there is a certain common trend between those non-stationary series. If two non-stationary series $\mathbf{X_t}$**~I(1),** $\mathbf{Y_t}$ **~I(1)**has a linear relationship such that $\mathbf{Z_t = m+a.X_t+\beta.Y_t}$ **and** $\mathbf{Z_t}$ **~I(0), (**$\mathbf{Z_t}$ is stationary), then we call the two series $\mathbf{X_t}$and $\mathbf{Y_t}$are cointegrated.

Two broad approaches to test for the cointegration are Engel and Grange (1987) and Johansen (1988). Broadly speaking cointegration test is equivalent to examine if the residuals of regression between two non-stationary series are stationary.For Engel-Granger test, regress $\mathbf{Y_t}$ on $\mathbf{X_t}$(or vice versa), and use the residual to see if it is stationary (unit root test described above). If it is stationary, two series $\mathbf{X_t}$and $\mathbf{Y_t}$cointegrated.

The Engle-Granger two-step method will be adopted to examine whether a cointegrating relation exist between stock market capitalization, stock volume traded as a per centage of gross domestic product and foreign direct investment in selected sub-saharan African countries, as well as the short-run effect of foreign direct direct investment on stock market growth (namely market capitalization and stock traded volume) and the speed of error correction, if any, among the variables. The Engle-Granger method involves following steps:

The first step involves determining whether a set of data contain unit roots in the individual time series. Unit root test are used to determine whether time series exhibit mean-reverting behavior by showing their order of integration. If a pair of time series, such as *MCt*and *FDIt*, are I(1) variables, then cointegration techniques can be used to model their long-run relationship. The Augmented Dickey-Fuller (fuller, 1976; and Dickey and Fuller, 1979) and

Phillips-Perron (Phillips, 1978; and Phillips and Perron, 1988) are used to examine the order of integration of *MCt* and *FDIt.*The ADF test is estimated thus:

$$\Delta Yt = \alpha o + \beta t + \alpha 1 Yt\text{-}1 + \Sigma b1 \Delta Yt\text{-}1 + \varepsilon t$$

I = 2

The null hypothesis is that Yt contains unit root, which implies that $\alpha 1 = 1$, against the alternative that the series does not contain unit root, which implies that $\alpha 1 < 1$. Dickey and Fuller (1981) provide cumulative distribution function of the ADF statistic. If the computed absolute value of the coefficient of $\alpha 1$ is less than ADF critical tau values, reject the null hypothesis that $\alpha 1 = 1$, in which case Yt does not contain unit root. Otherwise accept the null hypothesis, in which case Yt contains unit root. Phillips-Perron non-parametric test is used to confirm the result of the ADF test. The Phillip-Perron tests have two merits over ADF. Firstly, it is robust to general forms of heteroscedasticity in error term (εt). Secondly, it gives the user the latitude to specify a lag length for the test regression. The Phillips-Perron is estimated as follows:

$$Yt = \alpha o + \beta t = \alpha 1 Yt\text{-}1 + \varepsilon t$$

The null hypothesis of the PP tests is that there is a unit root in Yt series, against the alternative hypothesis of no unit root in Yt. The decision rule of PP tests is the same with ADF.

Once the order of integration of the series (MC and FDI) are confirmed I(1), the long run relationship is established by running the cointegrating regression. The residual-based unit root test is used to examine whether the residuals are stationary. If they are stationary, then the series are cointegrated. If the residuals are not stationary, there is no cointegrated.

Rejecting the null hypothesis of a unit root, therefore, is evidence in favour of cointegration (Engle and Granger, 1987; Lee, 1993). The residual-based test is estimated as follows:

$\Delta\mu t = \alpha 1 \mu t\text{-}1 + \varepsilon t$

Where, $\Delta\mu t$ are the estimated first differenced residual, $\mu t\text{-}1$ are the estimated lagged residuals,$\alpha 1$ is the parameter of interest representing slope of the line, εt are errors obtained from the regression. If the selected stock market capitalization (MCt) and foreign direct investments (FDIt) are cointegrated, εt should fail a unit root test.

3.6.8 **Regression Analyses**

The Classical Linear Regression Model (CLRM) which represents the foundational model for most higher and vigorous econometric analyses form the most fundamental technique of data analyses for this work. The Eviews Generalized Least Square (EGLS) method was used as it captures the required robustness and flexibility required for a panel data research work. Regression analyses is basically concerned with the study of the dependence of one variable (dependent variable) on one or more other explanatory or independent variables (regressors) with the view to finding out or estimating/predicting the mean or average value of the former in terms of known or repeated values of the latter(Gujarti and Porter, 2009).

In specific terms, regression analyses explains the variation in an outcome (dependent variable) Y, as it depends on a predictor (independent explanatory) variable X. it is a correlation based test. Correlation is one of the most common and useful statistics. It describes the degree of relationship between two variables.

Its predictive power is dependent on the estimation of the relationship between X and Y variables. The accuracy of such predictive capability depends on the amount of scatter: the less the scatter, the more the predictive accuracy. Stokewell, (2008) opines that correlation and regression is used when there is an alleged linear relationship between two or more variables beyond what is expected by chance. There is a hypothesized linear relationship between market capitalization and foreign direct investment. Essentially, the use of this econometric technique is necessitated by the fact that this work studies the dependence of Stock Market capitalization on foreign direct investments. This implies that the regression model would use foreign direct investment as a variable that explains changes in stock market growth. Hence, foreign direct investment is the regressor or independent variable while stock market capitalization is the dependent variable. Additionally, the following regression-based tests shall be conducted.

3.6.9 **Test For Significance (T-Statistic or Z-Statistic)**

The p-value of the t-statistic or z-statitistics will be used to test the significance of the overall regression using Generalized Least Square and the significance of the parameter estimates respectively. The chosen level of significance for this research work was5% (except otherwise stated). The p-value from the computed E-views table is compared with the p-value of the z-statistics from the Z-normal distribution tableotherwise. If the p-value from the computed E-views is greater than the p-value from the z-distribution table, the relationship is said to be significant, otherwise it is not significant. (Brooks, 2014)

This is a procedure by which sample results are used to verify the truth or falsity of a null hypothesis in the tests as conducted and reported, Lehman, (1959).

The key idea behind the significance of the parameter estimates is that of **test statistic** (estimator) and the sampling distribution of such under the null hypothesis. The hypothesis is stated thus according to Gujarati and Porter (2009):

H_0: $\beta i=0$

H_A: $\beta i\neq 0$

The decision to accept or reject $H_0$is made on the basis of the value of the test statistic obtained. If Z* falls in the acceptance region, the null will be accepted but will be rejected if it falls outside the acceptance region. If the null hypothesis is accepted, it indicates that the parameters are not statistically significant. On the other hand, it is statistically significant if the value of the test statistic lies outside the acceptance region hence H_A will be accepted, Osuala, (2010).

Decision rule: Using Panel data Generalized Least Square (GLS), accept Null hypothesis (H_o)if the computed Z-statistics or T-statistic p-value (Z_{PV} or T_{pv} Computed) is greater than the chosen level of significance and conclude that there is no significant relationship between the tested variables of interest, otherwise reject.

T-statistics or Z-statistic is a test of significance of the overall regression and it points out whether a significant relationship exists amongst all the variables fitted into the regression model. It specifically measures the goodness of fit of the model, Hill and Williams (2001).

3.6.10 **Correlation Coefficient**

This is generally used to measure the strength of linear relationship between two or more variables and as such will be adopted to measure the degree of the relationship between stock

market capitalization and individual variants of foreign direct investments and gross domestic product.

3.6.11 **Co-Efficient Of Determination**

This statistical tool is employed for better interpretation of result. It explains the degree of variation in stock market capitalization as explained by its relationship with foreign direct investments. This will principally be used at the point that this work will test Stock market capitalization against all the variants of foreign direct investments and gross domestic products combined in a multiple regression. Multiple coefficient of determination (R^2) is used to measure such variations in y-variable which is explained by the independent variables- x_1, x_2 and x_3.

3.6.12**Pairwise Granger Causality Test**

This is used to prove the direction of influence. The test assumes that the information relevant to the prediction of the variable are contained solely in the time series data on these variables. Generall, since the future cannot predict the past, if variables x1, x2 and x3 should precede y. Therefore, in a regression of y on the variables (including its own past values) if we include past or lagged values x and it significantly improves the predication of y, then we can say that x (Granger) causes y and vice-versa. This test is popularized by Granger (1969) who assumed that the current values of a variable (Y) is conditioned on the past values of another (X) or the other way round. This test shows whether a bidirectional or unidirectional causality exists between the variables of interest. In this work, this test shall be adopted to confirm whether Stock Market growth granger causes foreign direct investments or foreign direct investments granger causes stock market growth. It may also show whether they both granger causes themselves.

Specifically, it will show whether there is a causal relationship between the two and if there is, is it unidirectional or bidirectional.

3.7**Estimation of the Model**

$$\mathbf{LogMCR_{it}=\alpha_i + \beta_{1i}logFDIR_{it}+\beta_{2i}logGDP_{it}+\beta_{3i}logASI_{it}+\beta_{4i}logVSTR_{it}+\beta_{5i}logTUNR_{it} + \beta_{6i}logNLS_{it}+ \beta_{7i}logNS+ u_{it}}$$

Hypothesis One (Model 1)

$\log MCR_t = \alpha_0+\alpha_1 logFDIR_t + \alpha_2 logGDP_t + \alpha_3 logNS + U_t$ …3.6(Normal/individual model)

$\log MCR_{it} = \alpha_0 + \beta_1 logFDIR_{it} + \beta_2 logGDP_{it} + \beta_3 logNS + U_{it}$ …3.6.1 (Pooled effect model)

$\log MCR_{it} = \alpha_0 + \beta_1 logFDIR_{it} + \beta_2 logGDP_{it} + \beta_3 logNS + U_i + V_{it}$.3.6.2(Fixed effect model)

$logMCR_{it} = \alpha_0+\beta_1 logFDIR_{it} + \beta_2 logGDP_{it} + Ø_{it} + \beta_3 logNS; Ø_{it} = €_I + V_{it}$..3.6.3(Randomeffect model)

Hypothesis Two (Model 2)

$\log VSTR_t = \alpha_0+\alpha_1 logFDIR_t + \alpha_2 logGDP_t+\alpha_3 logNS + U_t$ .....3.7 (Normal/individual model)

$\log VSTR_{it} = \alpha_0 + \beta_1 logFDIR_{it} + \beta_2 logGDP_{it} + \beta_3 logNS + U_{it}$ …3.7.1 (Pooled effect model)

$\log VSTR_{it} = \alpha_0 + \beta_1 logFDIR_{it} + \beta_2 logGDP_{it} + \beta_3 logNS + U_i + V_{it}$ …3.7.2 (Fixed effect model)

$logVSTR_{it} = \alpha_0 + \beta_1 logFDIR_{it} + \beta_2 logGDP_{it} + \beta_3 logNS + Ø_{it}; Ø_{it} = €_I + V_{it}$ ..3.7.3(random effect model)

Hypothesis Three (Model 3)

$\log TUNR_t = \alpha_0 + \alpha_1 logFDIR_t + \alpha_2 logGDP_t + \alpha_3 logNS + U_t$.....3.8 (/Normal/Individual model)

$\log TUNR_{it} = \alpha_0 + \beta_1 logFDIR_{it} + \beta_2 logGDP_{it} + \beta_3 logNS + U_{it}$ ……3.8.1 (Pooled effect model)

$\log TUNR_{it} = \alpha_0 + \beta_1 logFDIR_{it} + \beta_2 logGDP_{it} + \beta_3 logNS\ U_i + V_{it}$ …3.8.2 (Fixed effect model)

$logTUNR_{it} = \alpha_0 + \beta_1 logFDIR_{it} + \beta_2 logGDP_{it} + \beta_3 logNS + Ø_{it}; Ø_{it} = €_I + V_{it}$ .3.8.3(random effect model)

Hypothesis Four (Model 4)

$\log NLS_t = \alpha_0 + \alpha_1 logFDIR_t + \alpha_2 logGDP_t + \alpha_3 logNS + U_t$ .....3.9 (Normal/individual model)

$\log NLS_{it} = \alpha_0 + \beta_1 logFDIR_{it} + \beta_2 logGDP_{it} + \beta_3 logNS + U_{it}$ ……3.9.1 (Pooled effect model)

$\log NLS_{it} = \alpha_0 + \beta_1 \log FDIR_{it} + \beta_2 \log GDP_{it} + \beta_3 \log NS + U_i + V_{it}$ …3.9.2 (Fixed effect model)

$\log NLS_{it} = \alpha_0 + \beta_1 \log FDIR_{it} + \beta_2 \log GDP_{it} + \beta_3 \log NS + Ↄ_{it}$; $Ↄ_{it} = €_I + V_{it}$ .3.9.3 (random effect model)

Hypothesis Five (Model 5)

$\log ASI_t = \alpha_0 + \alpha_1 \log FDIR_t + \alpha_2 \log GDP_t + \alpha_3 \log NS + U_t$ ….3.10 (Normal/individual model)

$\log ASI_{it} = \alpha_0 + \beta_1 \log FDIR_{it} + \beta_2 \log GDP_{it} + \beta_3 \log NS + U_{it}$ ……3.10.1 (Pooled effect model)

$\log ASI_{it} = \alpha_0 + \beta_1 \log FDIR_{it} + \beta_2 \log GDP_{it} + \beta_3 \log NS + U_i + V_{it}$ …3.10.2 (Fixed effect model)

$\log ASI_{it} = \alpha_0 + \beta_1 \log FDIR_{it} + \beta_2 \log GDP_{it} + \beta_3 \log NS + Ↄ_{it}$; $Ↄ_{it} = €_I + V_{it}$ ..3.10.3 (random effect model)

Hypothesis six (Model 6)

$\log MCR_t = \sum \alpha_1 \log FDI_t + \sum \alpha_2 \log GDP_{1-t} + \sum \log MCR_{1-t} + \sum \log NS_{1-t} + U_t$ …3.11

Granger Causality Tests on Stock market development parameters and foreign direct investments using Market capitalization as proxy.

Where;

α_0 = Intercept term

β = Vector of parameters to be estimated on the explanatory variables

Ↄ = Composite error term

μ = error term

$€_I$ = New cross-sectional error term

V_{it} = Individual observation error term

It = Panel data variables

NS = National Security = Dummy variable of 0 or 1.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF DATA

This chapter presents the datasets collected and collated from the World Bank statistical database, International Monetary Fund (IMF), National Bureu of Statistics and the statistical bulletins of Central banks of Nigeria, South Africa and Kenya for the periods under study (1984-2015).

The datasets are presented in tabular forms for the purposes of clarity. In addition, the results of various econometric and statistical methods of estimations adopted in line with the objectives and aforementioned methodology of this work are also contained in this chapter. The tests of the formulated equations and hypotheses are also presented with conclusions drawn against the backdrop of the formulated models and apriori expectations. The various diagnostic, standard and validity tests conducted are shown with the main aim of vouching for the reliability of the used datasets and estimated models.

4.1.0 **Data Presentation**

4.1.1 Tabular Data Presentation for Nigeria Selected Variables

Table 6. NIGERIA's Selected FDI and Stock market development data between1984 –2015

Year	MCAP ($'n	MCR (%)	VSTR (%)	TUNR (%	NLS	ASI	NS	GDP (	FDIR
1984	7,162	8.73	0.40	4.55	92	100	0	-4.6	1.64
1985	7,495	9.29	0.45	4.84	96	127.3	0	5.4	1.69
1986	3,883	10.83	0.69	6.36	99	163.8	0	-11.3	2.03
1987	2,065	12.58	0.41	3.26	100	190.9	0	-13.3	2.52
1988	2,207	12.48	0.32	2.58	102	233.6	0	4.5	1.23
1989	1,746	14.37	0.78	5.42	111	325.3	0	3.4	6.88
1990	1,370	17.60	0.34	1.95	131	513.8	0	9.6	1.98
1991	1,880	23.89	0.24	1.02	142	783.0	0	-0.7	4.51
1992	1,220	33.36	0.50	1.51	153	1,107.6	0	0.4	4.96
1993	2,143	46.89	0.66	1.41	174	1,543.8	0	2.0	4.71
1994	2,977	64.46	0.98	1.50	177	2,205.0	0	0.8	6.86
1995	7,777	165.30	1.78	1.08	181	5,092.2	0	-0.5	3.09

1996	**12,714**	**266.87**	**6.60**	**2.47**	**183**	**6,992.1**	**1**	**4.7**	**4.45**
1997	**12,559**	**264.49**	**10.03**	**3.97**	**182**	**6,440.5**	**1**	**2.5**	**4.81**
1998	**10,322**	**233.11**	**12.10**	**5.91**	**186**	**5,672.7**	**1**	**2.3**	**2.93**
1999	**2,940**	**258.62**	**12.14**	**3.83**	**194**	**5,266.4**	**1**	**0.0**	**2.17**
2000	**2,401**	**170.01**	**6.64**	**3.89**	**195**	**8,111.0**	**1**	**4.8**	**2.58**
2001	**2,396**	**92.80**	**10.33**	**3.94**	**196**	**10,963.**	**1**	**4.2**	**2.01**
2002	**2,374**	**33.44**	**10.66**	**4.01**	**198**	**12,137.**	**1**	**4.0**	**2.77**
2003	**9,493**	**17.01**	**12.69**	**4.23**	**200**	**20,128.**	**1**	**8.9**	**2.28**
2004	**15,866**	**18.06**	**15.59**	**10.59**	**206**	**23,844.**	**1**	**5.9**	**1.67**
2005	**22,244**	**19.82**	**13.27**	**8.78**	**215**	**24,085.**	**1**	**5.8**	**3.43**
2006	**32,831**	**22.57**	**14.28**	**10.96**	**201**	**33,189.**	**1**	**5.4**	**2.92**
2007	**84,895**	**51.00**	**23.58**	**20.45**	**211**	**57,990.**	**1**	**6.1**	**2.90**
2008	**48,062**	**23.10**	**47.77**	**34.79**	**212**	**31,450.**	**1**	**5.1**	**4.84**
2009	**32,223**	**19.01**	**20.58**	**13.94**	**214**	**20,827.**	**1**	**6.1**	**2.32**
2010	**50,546**	**13.70**	**15.67**	**10.10**	**215**	**24,770.**	**1**	**7.0**	**1.63**
2011	**39,028**	**9.48**	**1.54**	**9.92**	**196**	**20,672.**	**1**	**2.1**	**2.15**
2012	**56,205**	**12.19**	**1.43**	**9.92**	**189**	**28,986.**	**1**	**1.5**	**1.53**
2013	**80,610**	**15.65**	**2.03**	**9.92**	**188**	**41,120.**	**1**	**2.6**	**1.08**
2014	**63,466**	**11.16**	**2.35**	**8.18**	**188**	**31,639.**	**1**	**3.5**	**0.82**
2015	**49,974**	**9.93**	**3.33**	**8.17**	**183**	**27,727.**	**1**	**-0.1**	**0.85**

Source*: Worldbank data 2016; Nigeria Stock Exchange,2016; National Bureau of Statistics,2016; Index Mundi (Standard and Poor's, Global stock market factbook and Supplemental, International Monetary Fund, International Financial Statistics),2016.*

Comments:

Table 6 shows trend in the various variables used to measure market capitalization (MCAP), market capitalization ratio (MCR), value of stock traded ratio (VSTR), turnover ratio (TUNR), Number of listed stocks (NLS), All Share index (ASI), Gross Domestic Product (GDP) and Foreign Direct investment ratio (FDIR) for Nigeria from 1984 to 2015 (a 32 year period).

The table 6, showsthat the MCAP started from a very low level of $7.162 billion in 1984 with a corresponding market capitalization ratio of 8.73% and a negative GDP growth rate of

4.6% and have grown over the period to $12.714 billion in 1996, MCR 266.87% and a GDP growth rate of positive 2.5% respectively. This shows a massive growth in market capitalization by 77.52%. Within the same period, VSTR, NLS, and ASI all grew from 0.4%, 92 and 100 to 6.6%, 183 and 6,992.1 respectively. Hence, the number of listed shares and ASI grew by 98.91% and 6,892% between 1984 and 1996. Within the same period, TUNR dropped from 4.55% to 2.47% even when FDIR grew from 1.64% to 4.45%. Thus, market turnover (liquidity) tend to show an inverse relation to other variables including FDIR even with growth in local foreign capital, which is contrary to our aprior expectation and findings of some of the reviwed literature.

Table 6, shows that by 2006, the market capitalization (MCAP) and MCR had moved up to $32.831 billion and 22.57% respectively, showing growth in capitalization by 158.23% in the Nigerian stock market with a corresponding GDP growth rate of 5.4%. Similarly, the other stock market development parameters showed growth trend in VSTR, TUNR, NLS and ASI to 14.28, 10.96, 201 and 33,189.3 representing 116.36%, 343.73%, 9.84%, 374.66% growth respectively.It will be observed that market liquidity (TUNR) that did not show growth sign in the short-run had adjusted and now shows growth trend. FDIR, however had continued to grow though slowly by 2.92%, down from earlier 4.45%.

The table 6, further reveals that by close of 2015, while MCAP had grown to $49.974 billion (17.14%) (Though there had been periods it grew to $80.610 billion in 2013) before it fell to its 2015 figure. However, the increase experienced in MCAP failed to rub off on other stock market development parameters such as VSTR, TUNR, NLS and ASI, that closed at 3.33 (-

76.68%), 8.17 (-25.43%), 183 (-9.84%), 27,727.77 (-16.46%) respectively; including GDP that experienced a negative growth rate of -0.1% by end of 2015 and the foreign direct investment inflow rate had dropped dramatically to 0.85% by close of 2015. Impact of national security challenges is captured as a dummy variable, NS ranging from 0 to 1 depending on the period.

4.1.2 Tabular Data Presentation For South-Africa Selected Variables

Table 7- SOUTH AFRICA's selected FDI and Stock market Development data for periods 1984 - 2015

Year	MC ($'m)	MCR (%)	VSTR (%)	TUNR (%)	NLS	ASI	NS	GDP (%)	FDIR (%
1984	53,388	62.68	2.15	3.43	470	570.65	0	-1.80	0
1985	55,437	82.66	3.62	4.38	462	810.32	0	0.60	0.02
1986	102,652	129.12	6.52	5.05	536	1,263.29	0	3.50	2.88
1987	138,788	133.42	9.52	7.13	734	1,208.97	0	2.30	4.99
1988	126,189	110.08	3.84	3.49	754	1,387.89	0	2.60	4.09
1989	145,438	116.44	5.92	5.09	736	2,160.95	0	1.10	5.58
1990	136,869	122.19	7.36	6.02	740	2,271.16	0	1.10	-0.07
1991	184,705	158.63	6.72	4.37	698	2,981.43	0	-1.60	0.21
1992	164,046	125.69	5.55	4,42	642	2,945.65	0	-3.90	2.51
1993	217,098	161.64	5.89	3.65	615	2,886.73	0	-3.00	8.43
1994	259,523	185.70	9.56	5.15	600	3,542.02	0	-0.40	0.27
1995	277,389	178.43	10.3	5.75	612	3,853.72	0	1.30	0.81
1996	241,571	163.66	18.1	11.00	599	4,215.97	1	1.10	0.55
1997	230,039	150.76	27.6	18.30	615	4,026.25	1	-2.50	2.50
1998	168,536	122.33	39.4	32.20	650	3,623.62	1	0.00	0.40
1999	259,739	190.10	53.3	28.00	652	5,850.34	1	0.80	1.24
2000	204,301	149.80	51.7	34.50	604	5,850.34	1	-2.40	0.84
2001	147,472	121.36	29.1	24.00	510	7,564.49	1	1.20	4.15
2002	181,998	157.60	41.3	26.20	429	6,952.69	1	-2.20	0.65
2003	260,748	148.78	28.0	18.80	390	8,072.07	1	0.20	0.30
2004	442,520	193.58	36.6	18.90	369	10,122.38	1	1.80	0.26
2005	549,310	213.10	43.2	20.30	348	14,910.26	1	2.80	2.18
2006	711,232	261.83	64.0	24.40	359	21,053.29	1	3.00	0.22
2007	828,185	276.60	86.1	31.10	374	25,095.52	1	4.00	2.22
2008	482,700	168.32	70.7	42.00	367	19,273.36	1	-2.50	2.63
2009	799,024	270.00	73.5	27.20	353	25,460.11	1	0.50	1.83
2010	925,007	246.44	73.9	30.00	352	31,543.00	1	6.10	0.89
2011	789,037	189.40	54.2	28.60	347	31,985.62	1	3.40	1.04
2012	907,723	228.42	57.1	25.00	338	39,385.04	1	1.50	1.26
2013	942,812	257.43	63.4	24.60	322	45,735.26	1	2.90	2.25
2014	933,931	266.77	70.2	26.30	322	49,770.60	1	2.40	1.64
2015	735,945	223.53	74.8	31.80	316	50,693.76	1	2.70	1.67

Source*: Worldbank data, 2016;Johanesburg Stock Exchange, 2016; South Africa Reserve Bank, 2016; Statistics South Africa, 2016.*

Comments:

Table 7 shows trend in the various variables for the country of SOUTH AFRICA used to measure market capitalization (MCAP), market capitalization ratio (MCR), value of stock traded ratio (VSTR), turnover ratio (TUNR), Number of listed stocks (NLS), All Share index (ASI), Gross Domestic Product (GDP) and Foreign Direct investment ratio (FDIR) from 1984 to 2015.

The table 7, shows that the MCAP started from a very low level of $53.388 billion in 1984 with a corresponding market capitalization ratio of 62.68% and a negative GDP growth rate of 1.8% and have grown over the period to $241.57 billion in 1996, MCR 163.66% and a GDP growth rate of positive 1.1% respectively. This shows a massive growth in market capitalization by 352.48%. Within the same period, VSTR, TUNR, NLS, and ASI all grew from 2.15%, 3.43%, 470 and 570.65 to 18.1%, 11%, 599 and 4,215.97 respectively. Hence, the number of listed shares and ASI grew by 27.45% and 638.80% between 1984 and 1996. We observed also, that FDIR growth in South Africa has not been consistent, having moved from 0% in 1984 to 8.43% in 1993 and down to 0.55% in 1996. This trend is consistent with our aprior expectation and findings of some of the reviwed literature.

Table 7 shows that by 2006, the market capitalization (MCAP) and MCR had moved up to $711,232 billion and 261.83% respectively, showing growth in capitalization by 194.42% in the South Africa stock market with a corresponding GDP growth rate of 3.0%. Similarly, the other stock market development parameters showed growth trend in VSTR, TUNR and ASI to 64.0, 24.4, and 21053.29 except for NLS which dropped to 359 (indicating that some listed companies were delisted during the period). FDIR, however had continued to show cyclical trend and moved down to 0.22% from earlier 0.55%.

The table 7, further reveals that by close of 2015, while MCAP had grown to $735.945 billion (3.48% growth only, though there had been periods it grew to $942.812 billion in 2013) before dropping to its 2015 figure. This led tothe increase experienced in other stock market development parameters such as VSTR, TUNR and ASI, that closed at 74.8%, 31.80, 50,693.76 (140.79%) respectively; including GDP that experienced a positive growth rate of 2.7% by end of 2015 and the foreign direct investment inflow rate had increased to 1.67% by close of 2015. NS is represented as influence of National security represented by dummies.

4.1.3 Tabular Data Presentation for Kenya Selected Variables

Table 8- KENYA's Selected FDI and Stock Market Development data covering 1984 – 2015

Year	MC ($'m)	MCR (%)	VSTR (%)	TUNR (%)	NLS	ASI	NS	GDP (%)	FDIR (%
1984	250	0.65	0.65	0.81	19	386.55	0	2.50	0.11
1985	265	0.69	0.69	0.83	21	420.28	0	-3.50	0.02
1986	306	0.72	0.72	0.87	22	505.30	0	-2.20	0.01
1987	352	0.76	0.76	0.89	25	729.49	0	-0.10	0.12
1988	390	0.79	0.79	0.91	27	856.59	0	2.00	0.17
1989	424	0.81	0.81	0.92	29	814.95	0	0.20	0.23
1990	453	5.28	0.84	0.95	31	895.76	0	-2.60	0.67
1991	453	5.56	0.86	1.01	33	959.97	0	-3.40	0.23
1992	637	7.76	0.91	1.07	35	1,246.65	0	-4.60	0.08
1993	1,060	18.43	0.94	1.14	38	2,207.11	0	-1.00	2.53
1994	3,047	42.62	0.96	2.25	40	4,559.40	0	0.80	0.10
1995	2,018	22.30	0.66	2.97	56	3,468.88	0	1.00	0.47
1996	1,799	14.94	0.59	3.96	57	3,114.11	1	2.40	0.90
1997	1,813	13.82	0.74	5.38	57	3,115.14	1	0.90	0.47
1998	2,089	14.82	0.53	3.55	57	2,953.60	1	-1.00	0.19
1999	1,409	10.93	0.38	3.20	57	2,303.18	1	0.90	0.40
2000	1,255	9.88	0.30	3.01	56	1,913.00	1	2.60	0.87
2001	1,045	8.05	0.30	3.76	57	1,355.00	1	1.20	0.04
2002	1,431	10.89	0.29	2.61	49	1,363.00	1	3.60	0.21
2003	4,183	28.06	1.34	4,78	47	2,738.00	1	1.70	0.55
2004	3,891	24.18	1.76	7.29	48	2,946.00	1	3.00	0.29
2005	6,384	34.07	2.69	7.90	48	3,973.00	1	3.90	0.11
2006	11,378	44.06	5.28	12.00	52	5,646.00	1	4.20	0.20
2007	13,345	41.76	4.89	8.45	55	5,445.00	1	3.90	2.28
2008	10,854	30.24	4.17	6.84	55	3,521.00	1	1.80	0.26
2009	10,967	29.05	1.65	1.81	55	3,247.00	1	-2.90	0.29
2010	14,461	36.15	1.98	5.49	55	4,433.00	1	1.50	0.42
2011	10,203	24.32	2.19	8.99	58	3,205.00	1	1.70	0.33
2012	14,791	29.38	2.00	8.91	60	4,133.00	1	0.70	0.32
2013	22,256	40.50	3.28	8.95	61	4,927.00	1	0.60	0.68
2014	16,140	26.50	3.57	9.10	65	5,113.00	1	0.00	1.55
2015	18,204	26.00	4.04	10.02	64	4,041.00	1	-0.50	2.28

Source*: World bank data, 2016; Index Mundi, 2016 (Standard and Poor's, Global stock market factbook and Supplemental, International Monetary Fund, International Financial Statistics), 2016; National Bureau of Statistics,Kenya. 2016*

Comments:
Table 8, shows trend in the selected variables for KENYA used to measure market capitalization (MCAP), market capitalization ratio (MCR), value of stock traded ratio (VSTR), turnover ratio (TUNR), Number of listed stocks (NLS), All Share index (ASI), Gross Domestic Product (GDP) and Foreign Direct investment ratio (FDIR) from 1984 to 2015.

The table 8, shows that the MCAP started from a very low level of $250 million in 1984 with a corresponding market capitalization ratio of 0.65% and a positive GDP growth rate of 2.5% and have grown over the period to $1.799 billion in 1996, MCR 14.94% and a GDP growth rate drop of positive 2.4% respectively. This shows a massive growth in market capitalization by 619.6%. Within the same period, TUNR, NLS, and ASI all grew from 0.81%, 19 and 386.55 to 3.96%, 57 and 3,114.11 respectively. Hence, TUNR, the number of listed shares (NLS) and ASI grew by388.89%,200% and 705.62% between 1984 and 1996. Within the same period, VSTR dropped from 0.65% to 0.59% even when FDIR grew from 0.11% to 0.90%. Thus, value of stock traded (liquidity) tends to show an inverse relationship to other variables including FDIR even with growth in local foreign capital, which is not consistent with our aprior expectation.

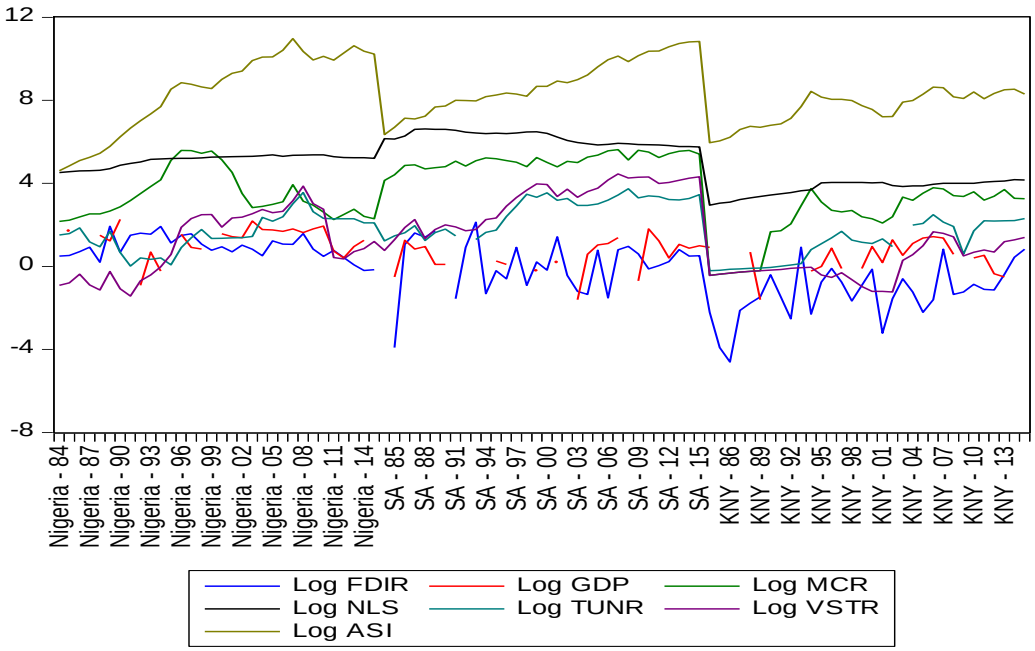
Table 8 shows that by 2006, the market capitalization (MCAP) and MCR had moved up to $11.378 billion and 44.06% respectively, showing growth in capitalization by 532.46% in the Kenya stock market with a corresponding GDP growth rate of 4.2%. Similarly, the other stock market development parameters showed growth trend in VSTR, TUNR and ASI to 5.28%, 12% and 5,646.00 representing 794.92%, 203.03%, and81.30% growth respectively. It will be

observed that No. of listed stocks did not increase rather dropped to 52 and FDIR also dropped from0.90% to 0.20%.

The table 8 further reveals that by close of 2015, MCAP had grown to $18.204 billion (60%) It pertinent to note that same variable rose to $22.256 billion in 2013 before dropping to the 2015 figure.Apart from the growth experienced in the number of listed stocks to 62 in 2015, other measurement parameters dropped such as VSTR, TUNR, ASI and GDP growth rate, that closed at 4.04 (-23.49%), 10.02 (-16.5%), 4,041.00 (-28.43%), and -0.50% (-111.90%)respectively; It is essential to note that inspite of the drops in stock market development variables, the net foreign direct investment rate did not dropby close of 2015 closing at 2.28%. NS shows the impact of National security challenges on FDI represented by dummy values.

4.1.4 Graphical Data Presentation For Selected Variables (A)

FIGURE 1 –GRAPHICAL ILLUSTRATION OF TRENDS IN SELECTED VARIABLES



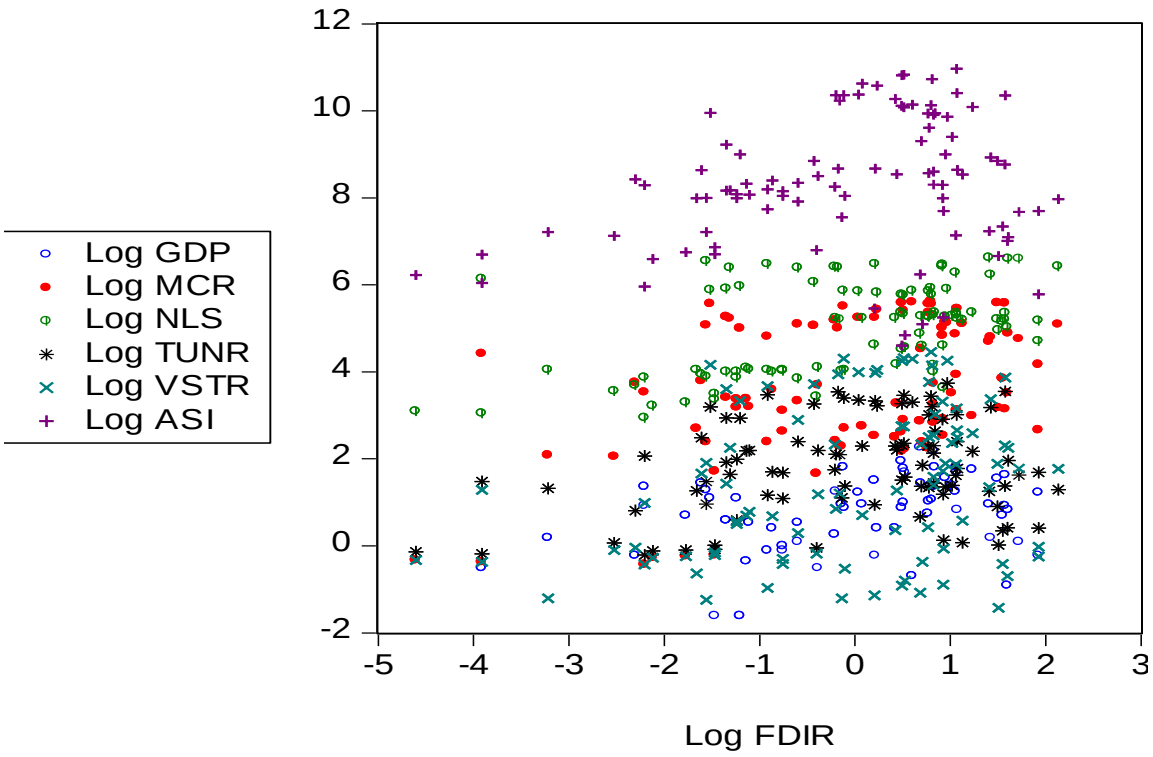
Source : Computation by author using E-view 7

Figure 1, shows FDI (Independent variable) oscillating between positive and negative region of the y-axis between 1984 and 2015 for Nigeria, South Africa (SA) and Kenya (KNY) indicating that the region had suffered loss of FDI more than it had gained. The mission of interest is to ascertain whether the volume gained within the period had any significant effect on the various stock markets development indicators within the study areas in the sub-saharan African region and whether it gingered appropriate development. It will be observed that of the five stock market development parameters under study, ASI followed by NLS and MCR grew the most in the stock markets of selected study area. Hence, these three constitute the strongest of the growth indicators from above diagram while VSTR and TUNR thrailed behind in measuring the stock market development.

4.1.5 Graphical Data Presentation for Selected Variable (B)

FIGURE 2 - SCATTER DIAGRAM ILLUSTRATION

Scatter Graphs are used to investigate the relationship between two or more variables for a set of paired data – Dependent and Independent variables. The pattern of the scatter describes the relationship between the variables as shown below:



Source : Computation by author using E-view 7

The scatter diagram in figure 2 shows FDI(independent variable) effect on Market capitalization and other stock market development indicators such as Number of listed shares, Turnover ratio, Value of stock traded and All share Index with the GDP as a moderating variable. The scatter plot shows that the FDI has not been consistent in its growth course as it has rovered between negative and positive axis, in essence, over the years, FDI in relative term has grown at a lesser rate when compared with other key stock market indicators in the selected study area and by extension in the sub-saharan region.Its our interest therefore in this study to ascertain if these growth we have seen in the stock market indicators were function of increase in the FDI stock. It

is important to also mentioned that of the stock market indicators, All share Index, Number of listed shares, market capitalization, Value of stock traded and market turnover (liquidity) have grown within the selected areas phenomenally.

4.2 Data Analysis

4.2.1– **Descriptive Statistics and Test for Normality**

The descriptive statistics will be done using the Jarque-Bera Normality test, which requires that for a series to be normally distributed; the histogram should be bell-shaped and the Jarque-Bera statistics would not be significant. This implies that the p-value given at the bottom of the normality test table should be greater than the chosen level of significance to accept the Null hypothesis, that the series is normally distributed (Brooks, 2014).

Table 9A - Descriptive Statistics for Nigeria Data

	ASI	FDIR	GDP	MCR	NLS	TUNR	VSTR
Mean	14200.08	2.882500	2.440625	61.93125	172.1875	6.982813	7.817500
Median	7551.550	2.420000	3.450000	19.41500	187.0000	4.695000	2.840000
Maximum	57990.20	6.880000	9.600000	266.8700	215.0000	34.79000	47.77000
Minimum	100.0000	0.820000	-13.30000	8.730000	92.00000	1.020000	0.240000
Std. Dev.	14864.55	1.595522	4.872693	84.37183	40.12275	6.678474	9.951143
Skewness	0.994003	1.002600	-1.677224	1.624464	-0.955759	2.534730	2.195803
Kurtosis	3.431440	3.315121	6.231248	4.046315	2.467408	10.73464	9.120387
Jarque-Bera	5.517741	5.493500	28.92439	15.53375	5.250069	114.0321	75.66046
Probability	0.063363	0.064136	0.000001	0.000424	0.072437	0.000000	0.000000
Sum	454402.6	92.24000	78.10000	1981.800	5510.000	223.4500	250.1600
Sum Sq. Dev.	6.85E+09	78.91640	736.0372	220676.8	49904.88	1382.662	3069.783
Observations	32	32	32	32	32	32	32

Source : Computation by author using E-view 7

The descriptive statistics in Table 9A shows the basic aggregative averages like mean, median and mode for all the observations. The spread and and variations in the series are also indicated using the standard deviation. Significantly, kurtosis which shows the degree of peakedness is also shown together with the skewness which is a reflection of the degree of or departure from symmetry of the given series. With all the variables showing an average kurtosis≥ 3, there is an evidence that they

are all platykurtic with about half of the variables showing Jarque-Bera statistics of p-values in belowthe 5% level of significance, indicates a normal distribution.

Table 9B – Descriptive Statistics for South Africa Data

	ASI	FDIR	GDP	MCR	NLS	TUNR	VSTR
Mean	13658.34	1.826250	0.831250	173.9528	506.7188	18.60355	35.41094
Median	5850.340	1.250000	1.100000	162.6500	490.0000	20.30000	32.85000
Maximum	50693.76	8.430000	6.100000	276.6000	754.0000	42.00000	86.10000
Minimum	570.6500	-0.070000	-3.900000	62.68000	316.0000	3.430000	2.150000
Std. Dev.	15565.85	1.911189	2.355972	57.09750	151.4115	11.71095	27.38420
Skewness	1.219764	1.645728	-0.179879	0.252675	0.193447	-0.005272	0.251544
Kurtosis	3.172671	5.829387	2.482714	2.222119	1.516964	1.674397	1.602591
Jarque-Bera	7.974816	25.11882	0.529347	1.147303	3.132111	2.269890	2.941131
Probability	0.018548	0.000004	0.767456	0.563464	0.208867	0.321440	0.229796
Sum	437066.7	58.44000	26.60000	5566.490	16215.00	576.7100	1133.150
Sum Sq. Dev.	7.51E+09	113.2319	172.0688	101063.8	710688.5	4114.389	23246.72
Observations	32	32	32	32	32	31	32

Source : Computation by author using E-view 7

The descriptive statistics for South Africa indicates that 43% of the variables show an average kurtosis ≥ 3, indicating a platykurtic characteristics while the rest 57% are below 3, showing a leptokurtic characteristics. The variables that show Jarque-Bera statistics of p-values in excess of the 5% level of significance, indicating anoutlinear in distribution will be corrected through either data differencing, log transformation or addition of dummy variablesor even dropping of variables in the models to improve our R^2; while ASI and FDIR are normally distributed.

Table 9C: Descriptive Statistics for Kenya Data

	MCR	FDIR	GDP	NLS	TUNR	VSTR	ASI
Mean	18.57774	0.542903	0.567742	46.51613	4.381935	1.620000	2703.160
Median	14.94000	0.290000	0.900000	55.00000	3.200000	0.860000	2953.600
Maximum	44.06000	2.530000	4.200000	65.00000	12.00000	5.280000	5646.000
Minimum	0.650000	0.010000	-4.600000	19.00000	0.810000	0.290000	386.5500
Std. Dev.	14.23592	0.685046	2.338146	14.21237	3.462825	1.446773	1637.363
Skewness	0.294407	1.926196	-0.473115	-0.646993	0.584316	1.223863	0.123424
Kurtosis	1.836046	5.531085	2.471028	1.967694	1.967481	3.258845	1.781445
Jarque-Bera	2.197761	27.44445	1.517921	3.539241	3.141072	7.825392	1.996671
Probability	0.333244	0.000001	0.468153	0.170398	0.207934	0.019987	0.368492
Sum	575.9100	16.83000	17.60000	1442.000	135.8400	50.22000	83797.96
Sum Sq. Dev.	6079.847	14.07864	164.0077	6059.742	359.7347	62.79460	80428743
Observations	31	31	31	31	31	31	31

Source : Computation by author using E-view 7

The descriptive statistics for Kenya in table 9C, reveals the skewness as a swing between positive and negative signs and the Kurtosis between leptokurtic (MCR, NLS, TUNR and ASI) and platykurtic (FDIR, GDP and VSTR). The Jarque-Bera statistics p-values for most of the data are insignificant being above the 5% threshold, indicating an outlinear in the data distribution.This observed outlinear will be corrected either through data differencing, log transformation or addition of dummy variables or even dropping of variablesin the models to improve our R^2. The testing of single dependent variable against single independent variable will greatly assist to cure this defect.

TABLE 10 -PANEL DESCRIPTIVE STATISTICS

	FDIR	GDP	MCR	NLS	TUNR	VSTR	ASI
Mean	1.755319	1.342553	85.09053	239.6277	9.957447	15.19128	10343.85
Median	1.250000	1.500000	33.75500	187.0000	5.620000	3.940000	4033.625
Maximum	8.430000	9.600000	276.6000	754.0000	42.00000	86.10000	57990.20
Minimum	-0.070000	-13.30000	0.650000	19.00000	0.810000	0.240000	100.0000
Std. Dev.	1.772078	3.455072	88.78911	212.2372	10.06485	22.43714	13529.60
Skewness	1.404476	-1.107006	0.841620	1.001759	1.332646	1.663846	1.665928
Kurtosis	4.887663	6.873088	2.252944	2.859795	3.661030	4.508188	4.952915
Jarque-Bera	44.85946	77.95206	13.28293	15.79881	29.53457	52.28032	58.41762
Probability	0.000000	0.000000	0.001305	0.000371	0.000000	0.000000	0.000000
Sum	165.0000	126.2000	7998.510	22525.00	936.0000	1427.980	972321.7
Sum Sq. Dev.	292.0441	1110.190	733166.1	4189150.	9421.020	46818.54	1.70E+10
Observations	94	94	94	94	94	94	94

Source : Computation by author using E-view 7

The mean and median as well as the standard deviation for the panel data in table 10, for the study area shows even spread and variations for the series. The panel mean, median, maximum and Standard Deviation for all the variables show positive and healthy trend. Significantly, kurtosis which shows the degree of peakedness is also shown along with the skewness which is a reflection of the degree or departure from symmetry of the given series. With a majority of the variables having kurtosis in excess of 3, there is strong evidence to believe they are mostly platykurtic. The Jarque-Bera and the probability of the pooled panel data show strong sign of normality considering the spread among the variables and a significant p-value of 0.00 which is less than the chosen significant level of 5%. The implication of this is that the observed outlinear in the individual country descriptive statistics (Kenya and South-Africa) have been corrected through the panel

pool effect and the result from such a process can be adequately relied upon.

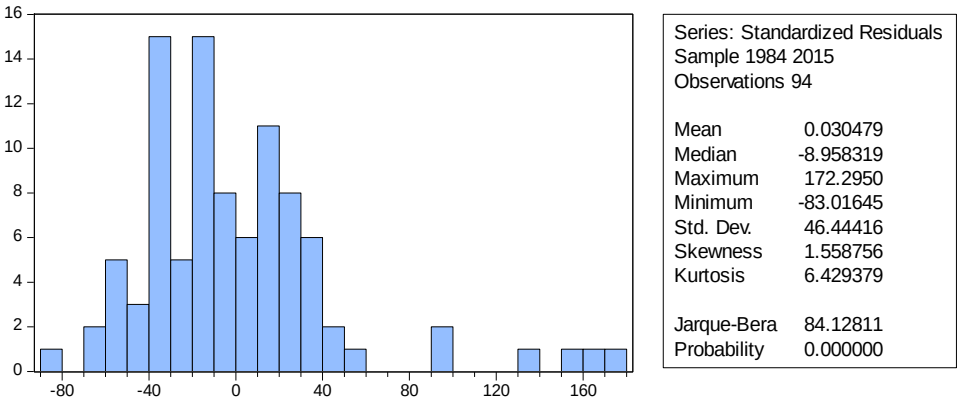
TABLE 11 - PANEL COVARIANCE MATRIX

	FDIR	GDP	MCR	NLS	TUNR	VSTR	ASI
FDIR	3.106853	0.650082	26.89601	82.32464	-0.193816	0.417450	1284.303
GDP	0.650082	11.81053	23.57066	-3.776709	4.097449	11.37613	17769.59
MCR	26.89601	23.57066	7799.639	11121.17	487.4864	1419.001	374188.3
NLS	82.32464	-3.776709	11121.17	44565.43	882.6059	1982.994	273089.1
TUNR	-0.193816	4.097449	487.4864	882.6059	100.2236	205.2112	80844.34
VSTR	0.417450	11.37613	1419.001	1982.994	205.2112	498.0696	186230.3
ASI	1284.303	17769.59	374188.3	273089.1	80844.34	186230.3	1.81E+08

Source : Computation by author using E-view 7

From table 11, covariance matrix table, the result indicates significant covariance between FDIR and MCR, ASI, NLS,VSTR and TUNR at a range of 26.9% to over 82%. Similarly, significant covariance is observed between MCR, TUNR, NLS and VSTR. Hence, any suspicion of possible multicollinearity could be death with by dropping variable ASI and possibly TUNR, but that is considered unnecessary because of the model structures for each hypothesis.

FIGURE 3 - PANEL DATA TEST FOR NORMALITY



Source : Computation by author using E-view 7

The histogram in figure 3,shows a bell-shape but the Jarque-Bera and the p-value of the panel series is significant at the 5% level of significance showing strong Normality in the distribution.

4.2.2: **DIAGNOSTIC TESTS**

The aim here is to carry out various diagnostic tests to ensure that our data and model used in this research work conforms to the basic assumptions of the classical linear regression. This will ensure that the output of this process is not error prone and is reliable.

4.2.2.1:**Test For Stationarity**

The test for stationarity requires that the variables in the series model must be stationery at a given level and p-value must be significant at that level. Stationerity is attained where the test statistics is most negative and greater than the critical value of the chosen level of significance.

Table 12A: Unit Root Tests for Nigeria Data

Variables	ADF Test Statistics	Critical Values @5%	P-value	Order of Integration
ASI	**-5.3935**	**-3.5742**	**0.0007**	**I(1)**
FDIR	**-7.2699**	**-3.5742**	**0.0000**	**I(1)**
GDP	**-6.6859**	**-3.5742**	**0.0000**	**I(1)**
MCR	**-3.0526**	**-2.9640**	**0.0414**	**I(1)**
NLS	**-4.9438**	**-3.5684**	**0.0021**	**I(1)**
TUNR	**-5.7640**	**-3.5684**	**0.0003**	**I(1)**
VSTR	**-5.9396**	**-3.5684**	**0.0002**	**I(1)**

Source: Author's E-view 7 Computation

Table 12A reports the tests for stationarity properties of the series following the Augumented Dickey Fuller (ADF) statistics. All the variables were found to be stationery at order one (1). At the First difference as reported, the ADF Statistics for the respective variables were more negative than the critical values at 5% significance level. The reported P values were all less than 0.05 chosen level of significance for which cause, the Null Hypothesis of the presence of unit

root in all the variables is convincingly rejected. For the purposes of Cointegration analysis and tests, it is also interesting to state that the variables are all integrated of the same order.

Table 12B: Unit Root Tests for South Africa Data

Variables	ADF Test Statistics	Critical Values @5%	P-value	Order of Integration
D(MCR)	**-6.5745**	**-3.5742**	**0.0000**	**I(1)**
D(ASI)	**-5.3560**	**-3.5742**	**0.0008**	**I(1)**
D(FDIR)	**--7.3182**	**-3.5806**	**0.0000**	**I(1)**
D(GDP)	**-6.1372**	**-3.5742**	**0.0001**	**I(1)**
D(NLS)	**-5.2993**	**-3.5684**	**0.0009**	**I(0)**
D(TUNR)	**-4.4003**	**-3.7597**	**0.0173**	**I(1)**
D(VSTR)	**-5.2930**	**-3.5684**	**0.0009**	**I(1)**

Source: Author's E-view 7 Computation

Table 12B reports the tests for stationarity properties of the series following the Augumented Dickey Fuller (ADF) statistics. All the variables were found to be stationery at order one (1). At the First difference as reported, the ADF Statistics for the respective variables were more negative than the critical values at 5% significance level. The reported P values were all less than 0.05 chosen level of significance for which cause, the Null Hypothesis of the presence of unit root in all the variables is convincingly rejected. For the purposes of Cointegration analysis and tests, it is also interesting to state that the variables are all integrated of the same order.

Table12C : Unit Root Tests for Kenya Data

	ADF Test Statistics	Critical Values @5%	P-value	Order of Integration
D(MCR)	**-5.8417**	**-3.5684**	**0.0002**	**I(1)**
D(ASI)	**-4.8205**	**-3.5684**	**0.0029**	**I(1)**
D(FDIR)	**-5.0284**	**-3.5629**	**0.0016**	**I(0)**
D(GDP)	**-6.5487**	**-3.5684**	**0.0000**	**I(1)**
D(NLS)	**-4.6520**	**-3.5684**	**0.0043**	**I(1)**
D(TUNR)	**-5.0976**	**-3.5875**	**0.0017**	**I(1)**
D(VSTR)	**-4.2906**	**-3.5684**	**0.0101**	**I(1)**

Source: Author's E-view 7 Computation

Table 12C reports the tests for stationarity properties of the series following the Augumented Dickey Fuller (ADF) statistics. All the variables were found to be stationery at order zero (0). At levels as reported, the ADF Statistics for the respective variables were more negative than the critical values at 5% significance level. The reported P values were all less than 0.05 chosen level of significance for which cause, the Null Hypothesis of the presence of unit root in all the

variables is convincingly rejected. For the purposes of Cointegration analysis and tests, it is also interesting to state that the variables are all integrated of the same order.

TABLE 12D – PANEL UNIT ROOT RESULT

Variables	LLandC Test Statis	Critical Values @5%	P-value	Order of Integration
D(MCR)	**-6.50578**	**-6.724**	**0.0000**	**I(1)**
D(ASI)	**-10.8777**	**-11.250**	**0.0000**	**I(1)**
D(FDIR)	**-7.01822**	**-7.258**	**0.0000**	**I(1)**
D(GDP)	**-7.2267**	**-7.532**	**0.0000**	**I(1)**
D(NLS)	**-6.0428**	**-6.249**	**0.0000**	**I(1)**
D(TUNR)	**-4.8947**	**-5.062**	**0.0000**	**I(1)**
D(VSTR)	**-10.2991**	**-10.662**	**0.0000**	**I(1)**

Source: Author's E-view 7 Computation

The Table 12D shows the stationerity tests for the panel data series following the Levin, Lin and Chu (LLC) statistics. All the panel variables were found to be stationery at first difference level (1). At first difference levels as reported, the variable p-value were all 0.0000 and less than the 5% chosen significance level and thus we reject the Null hypothesis of the presence of Unit root and accept the alternative that there is no unit root and stationerity is attained by all the variables at the first difference levels.

4.2.2.2 - **Test For Serial Correlation – Breusch-Godfrey (BG) Tests**

The Breusch-Godfrey tests is used to test for the presence or absence of serial or autocorrelations in the model with the Null hypothesis stating that there is No autocorrelation. This holds if p-value is greater than the chosen level of significance otherwise reject.

Table 13A : Breusch-Godfrey Serial Correlation Test – Nigeria

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	1.382660	Prob. F(2,19)	0.2750
Obs*R-squared	3.557447	Prob. Chi-Square(2)	0.1689
Test Equation: Equation 3.11			

Source: Author's E-view 7 computations (See Appendix 2 for details)

From table 13A, the p-value is greater than the chosen level of significance of 5%, indicating the absence of autocorrelation in the model. This is further enhanced with a Durbin-Watson statistics of 1.653. Hence, we do not suspect any violation of the assumptions of classical linear regression. The applicable treatment was to lag the variables by minus four (-4) periods.

Table 13B: Breusch-Godfrey serial correlation Test for South Africa

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	0.524342	Prob. F(2,21)	0.5995
Obs*R-squared	1.426867	Prob. Chi-Square(2)	0.4900
Test Equation: Equation 3.11			

Source: Author's E-view 7 computation (See Appendix 3 for details)

From table 13B, the p-value is greater than the chosen level of significance of 5%, indicating the absence of autocorrelation in the model for South Africa. This was arrived at after treating the variables with a one (1) period lag.

Table 13C: Breusch-Godfrey Serial Correlation Test – Kenya

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	0.303660	Prob. F(4,19)	0.8719
Obs*R-squared	1.802615	Prob. Chi-Square(4)	0.7720
Test Equation: Equation 3.11			

Source: Author's E-Views 7 computation (See Appendix 4 for details)

From table 13C, the p-value is greater than the chosen level of significance of 5%, indicating the absence of autocorrelation in the model. This was arrived at after treating the variables with a one (1) period lag.

4.2.2.3 Test for Heteroskedasticity (Arch)

The assumption of the classical linear regression that the variance of the errors is constant is known as *Homoskedastycity*. If the variance of the errors is not constant, this would be known as *Heteroskedasticity*. Hence, we test for the presence of heteroskedasticity with the intention of

treating same if found. The treatment method adopted here is the Autoregressive conditionally Heteroscedastic test known as ARCH. The Null hypothesis states that there is no Heteroscedasticity if the p-value is greater than the level of significance (Brooks, 2014).

Table 14A: Heteroskedasticity Table Result for Nigeria

Heteroskedasticity Test: ARCH			
F-statistic	2.655278	Prob. F(1,28)	0.1144
Obs*R-squared	2.598520	Prob. Chi-Square(1)	0.1070

Source: Author's E-View 7 computations (See Appendix 5 for details)

The null hypothesis states that there is No heteroskedasticity if p-value is not significant and is greater than the chosen level of significance of 5%. Hence, in this case we accept the Null hypothesis that there is no evidence of heteroskedasticity since p-value is greater than 5% significance level.

Table 14B:Heteroskedasticity tableResult for South Africa

Heteroskedasticity Test: ARCH			
F-statistic	1.275092	Prob. F(1,26)	0.2691
Obs*R-squared	1.308981	Prob. Chi-Square(1)	0.2526

Source: author's E-view 7 computations (See Appendix 6 for details)

From table 14B for South Africa, weaccept Null hypothesis that there is No heteroskedasticity since p-valueis greater than the chosen level of significance of 5%. This was arrived at after one(1) period lag treatment.

Table 14C: Heteroskedasticity Table Resultfor Kenya

Heteroskedasticity Test: ARCH			
F-statistic	0.194578	Prob. F(2,23)	0.8245
Obs*R-squared	0.432595	Prob. Chi-Square(2)	0.8055

Source: Author's E-view 7 Computation(See Appendix 7 for details)

In table 14C for Kenya, we accept Null hypothesis that there is No heteroskedasticity since p-valueis greater than the chosen level of significance of 5%.

4.2.2.4: Test For Multicollinearity

Table 15A: Correlation Matrix for Nigeria

	ASI	FDIR	GDP	MCR	NLS	TUNR	VSTR
ASI	1.000000	-0.318477	0.377109	-0.249774	0.661029	0.710278	0.530383
FDIR	-0.318477	1.000000	-0.008880	0.237598	-0.021035	-0.057686	0.086211
GDP	0.377109	-0.008880	1.000000	0.020441	0.540823	0.238498	0.390818
MCR	-0.249774	0.237598	0.020441	1.000000	0.228890	-0.250052	0.072836
NLS	0.661029	-0.021035	0.540823	0.228890	1.000000	0.431940	0.599686
TUNR	0.710278	-0.057686	0.238498	-0.250052	0.431940	1.000000	0.841881
VSTR	0.530383	0.086211	0.390818	0.072836	0.599686	0.841881	1.000000

Source: Author's E-view 7 Computation

From the correlation matrix table 15A, the result indicates significant correlation between ASI, NLS and TUNR at 0.661029 and 0.710278 respectively. Similarly, significant correlation is observed between TUNR and VSTR at 0.841881. Hence, there is a suspicion of possible multicollinearity and the approach would be to drop variable ASI and possibly TUNR, but that is considered unnecessary because of the model structures for each hypothesis that does not combine these suspicious independent variables together (Brooks, 2014).

Table 15B: Correlation Matrix for South Africa

	D(MCR)	D(ASI)	D(FDIR)	D(GDP)	D(NLS)	D(TUNR)	D(VSTR)
D(MCR)	1.000000	0.591712	-0.082971	0.353073	0.027528	-0.497072	0.553099
D(ASI)	0.591712	1.000000	0.079807	0.470374	-0.079538	-0.402212	0.367516
D(FDIR)	-0.082971	0.079807	1.000000	-0.054922	0.176068	-0.106948	-0.145036
D(GDP)	0.353073	0.470374	-0.054922	1.000000	0.026535	-0.365007	0.089272
D(NLS)	0.027528	-0.079538	0.176068	0.026535	1.000000	0.249530	0.226760
D(TUNR)	-0.497072	-0.402212	-0.106948	-0.365007	0.249530	1.000000	0.367390
D(VSTR)	0.553099	0.367516	-0.145036	0.089272	0.226760	0.367390	1.000000

Source: Author's E-view 7 Computation

The result from table 15B, reveals significant correlation betweenD(MCR)and D(ASI) at 0.591712,and between D(MCR) and D(VSTR) at 0.553099. Others are not considered significant as they fall below 50%. Hence, the suspected multicollinearitycould be corrected by dropping

variable ASI and possibly VSTR, but that is considered unnecessary because of the model structures for each hypothesis that does not combine these suspicious variables together.

Table 15C: Correlation Matrix for Kenya

	D(MCR)	D(FDIR)	D(GDP)	D(NLS)	D(TUNR)	D(VSTR)	D(ASI)
D(MCR)	1.000000	-0.138647	0.229447	-0.369362	0.134377	0.337540	0.840960
D(FDIR)	-0.138647	1.000000	0.208744	0.135092	-0.133808	0.069449	-0.023849
D(GDP)	0.229447	0.208744	1.000000	-0.070382	0.399415	0.319906	0.311545
D(NLS)	-0.369362	0.135092	-0.070382	1.000000	0.187969	0.056022	-0.056828
D(TUNR)	0.134377	-0.133808	0.399415	0.187969	1.000000	0.731095	0.290028
D(VSTR)	0.337540	0.069449	0.319906	0.056022	0.731095	1.000000	0.440041
D(ASI)	0.840960	-0.023849	0.311545	-0.056828	0.290028	0.440041	1.000000

Source: Author's E-view 7 Computation

From table 15C, the observed possible multicollinearity could occur between D(MCR) and D(ASI) at 0.840960, and between D(TUNR) and D(VSTR) at 0.731095. Again, we can drop variable D(ASI) and D(VSTR) to correct the problem. But we will ignore it as we do not envisage these independent variables altering our results.

TABLE 16 - PANEL CORRELATION MATRIX

	ASI	FDIR	GDP	MCR	NLS	TUNR	VSTR
ASI	1.000000	0.054143	0.384220	0.314841	0.096126	0.600070	0.620073
FDIR	0.054143	1.000000	0.107318	0.172779	0.221243	-0.010984	0.010612
GDP	0.384220	0.107318	1.000000	0.077660	-0.005206	0.119095	0.148325
MCR	0.314841	0.172779	0.077660	1.000000	0.596505	0.551366	0.719947
NLS	0.096126	0.221243	-0.005206	0.596505	1.000000	0.417621	0.420898
TUNR	0.600070	-0.010984	0.119095	0.551366	0.417621	1.000000	0.918483
VSTR	0.620073	0.010612	0.148325	0.719947	0.420898	0.918483	1.000000

Source : Author's E-views computation

Table 16, shows a positive panel correlation of a maximum of 22.12% between FDIR and the stock market development indicators with the exception of TUNR with a negative correlation of 0.01098 or -1.098% which is quite negligible in terms of materiality. This implies that changes in FDI could result to positive changes changes in key stock market development indicators. The key indicators that will be mostly affected by major FDI

changes will include All Share Index (5.4%), Market capitalization (17.3%), and Number of listed shares (22.1%).

4.2.1.5 Test for Ramsey Reset Specification

Ramsey (1969)proposed a general functional form misspecification test, Regression Specification Error Test (RESET), which hasproven to be useful.The Reset test is a general test for the following type of specification errors:

a) Omitted Variables

b) Incorrect Functional form

c) Correlation between variables which may be caused by measurement error, simultaneous equation combination, combination of lagged values and serially correlated disturbances.

The Reset test is a non-linearity test, or a misspecification of functional form, that is a situation where the shape of the regression model estimated is incorrect – for instance, where the model estimated is linear but it should have been non-linear (Brooks, 2014). The Null hypothesis holds that where the p-value of the test statistics is greater than the level of significance, the result is not significant and the regression model is linear, otherwise we reject the Null hypothesis and accept the Alternative hypothesis that the relationship is significant and the regression model is non-linear.The result for the test is usually presented in the first upper box of the first three rows .

Table 17A: Ramsey Reset Specification – Nigeria Data

Ramsey RESET Test				
Equation: UNTITLED				
Specification: ASI C FDIR GDP MCR NLS TUNR VSTR				
Omitted Variables: Squares of fitted values				
	Value	df	Probability	
t-statistic	1.138314	24	0.2662	
F-statistic	1.295758	(1, 24)	0.2662	
Likelihood ratio	1.682652	1	0.1946	

Source: Author's E-view 7 Computation (See Appendix 8 for details)

The p-values in the table 17A for t and F-statistics being greater than the 5% significance level,indicates that the test statistics are not significant at the 5% level. We thus accept the Null hypothesis that the regression model in equation 3.11, is linear.

Table 17B: Ramsey Reset Specification - South Africa Data

Ramsey RESET Test				
Equation: UNTITLED				
Specification: FDIR C GDP MCR ASI NLS TUNR VSTR				
Omitted Variables: Squares of fitted values				
	Value	df	Probability	
t-statistic	0.829523	23	0.4153	
F-statistic	0.688109	(1, 23)	0.4153	
Likelihood ratio	0.913848	1	0.3391	

Source: Author's E-views 7 computations (See Appendix 9 for details)

The p-values in the table 17B for South Africa, t and F-statistics are both greater than the 5% significance level indicating that the test statistics are not significant at the 5% level. Here again, we accept the Null hypothesis that the regression model for South Africa as depicted in equation 3.11 is linear. Thus, the output from this model testing provides a best fit and can be relied upon.

Table 17C: Ramsey RESET Specification- Kenya data

Ramsey RESET Test				
Equation: UNTITLED				
Specification: FDIR C GDP MCR ASI NLS TUNR VSTR				
Omitted Variables: Squares of fitted values				
	Value	df	Probability	
t-statistic	1.088178	23	0.2878	
F-statistic	1.184132	(1, 23)	0.2878	
Likelihood ratio	1.556277	1	0.2122	

Source: Author's E-views 7 computations (See Appendix 10 for details)

The p-values in the table 17C above for t and F-statistics are greater than the 5% chosen level of significance indicating that the test statistics are not significant at the 5% level. We thus, accept the Null hypothesis that the regression model in equation 3.11 for Kenya is well fitted for the relationship between the variables in the model and that the regression model used is linear. We can conveniently accept the results from such research testing.

4.2.1.6 **Tests for Cointegration**

According to Brooks (353: 2014), Cointegration is used in Finance to model long-run equilibrium relationship and this is further supported by Woolbridge (2006). Cointegration methodhave been used in several established researches to test for long-run equilibrium relationship (Levine and Zervos, 1998; and Soumare and Tchana, 2015). These forms the basis for our adoption of cointegration method to test for the existence of long-run equilibrium relationship before we can proceed with our regression analysis.

i.) Individual Country Cointegration Tests

Table 18A: Cointegration Test Result for Nigeria @ 5% level

Date: 07/27/17 Time: 14:15				
Sample (adjusted): 1986 2015				
Included observations: 30 after adjustments				
Trend assumption: Linear deterministic trend				
Series: MCR ASI NLS TUNR VSTR FDIR GDP				
Lags interval (in first differences): 1 to 1				
Unrestricted Cointegration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.848321	166.9772	125.6154	0.0000
At most 1 *	0.719214	110.3976	95.75366	0.0034
At most 2 *	0.668287	72.29268	69.81889	0.0313
At most 3	0.449833	39.18816	47.85613	0.2528
At most 4	0.313184	21.26215	29.79707	0.3415
At most 5	0.166530	9.991502	15.49471	0.2814
At most 6 *	0.140060	4.526780	3.841466	0.0334
Trace test indicates 3 cointegrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized		Max-Eigen	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.848321	56.57960	46.23142	0.0029
At most 1	0.719214	38.10490	40.07757	0.0820
At most 2	0.668287	33.10453	33.87687	0.0616
At most 3	0.449833	17.92601	27.58434	0.5013
At most 4	0.313184	11.27065	21.13162	0.6203
At most 5	0.166530	5.464723	14.26460	0.6824
At most 6 *	0.140060	4.526780	3.841466	0.0334
Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				

Source: Computation by author using E-view 7

The cointegration result for Nigeria in table 18A of the trace and maximum eigenvalue tests shows the existence of three (3) cointegrating vectors (p-value of 0.0034, 0.0313 and 0.0334) for trace test and one cointegration result (p-value, 0.0334) for maximum eigenvalue between FDI and stock market development at the 5% level of significance. This thus confirms the existence of long-run equilibrium (cointegrating) effect of FDI on stock market development indicators.

Table 18B: Cointegration TestResult for South-Africa data @ 5% level

Date: 07/27/17 Time: 14:08				
Sample (adjusted): 1986 2015				
Included observations: 27 after adjustments				
Trend assumption: Linear deterministic trend				
Series: MCR ASI NLS TUNR VSTR FDIR GDP				
Lags interval (in first differences): 1 to 1				
Unrestricted Cointegration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.950586	178.6734	125.6154	0.0000
At most 1 *	0.727912	97.47036	95.75366	0.0379
At most 2	0.605801	62.32633	69.81889	0.1710
At most 3	0.464295	37.19201	47.85613	0.3385
At most 4	0.347083	20.33936	29.79707	0.4001
At most 5	0.269416	8.829102	15.49471	0.3814
At most 6	0.013007	0.353494	3.841466	0.5521
Trace test indicates 2 cointegrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized		Max-Eigen	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.950586	81.20299	46.23142	0.0000
At most 1	0.727912	35.14404	40.07757	0.1621
At most 2	0.605801	25.13432	33.87687	0.3760
At most 3	0.464295	16.85265	27.58434	0.5926
At most 4	0.347083	11.51026	21.13162	0.5964
At most 5	0.269416	8.475608	14.26460	0.3324
At most 6	0.013007	0.353494	3.841466	0.5521
Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				

Source : Computation by author using E-view 7

The table 18B shows that South-Africa data exhibits a cointegrating relationship between FDI and stock market development indicators.The trace and maximum eigenvalue shows the existence of two (2) cointegrating vector at the 5% significance level (p-value of 0.0000 and 0.0379) for trace test and one (1) cointegrating equation (p-value of 0.0000) for maximum eigenvalue; thus confirming the existence of a long-run (cointegrating) equilibrium between FDI and stock market development variables. We reject the null hypothesis to accept the alternative that there exists a long-run FDI effect on the stock market

Table 18C: Cointegration Test Result for Kenya @ 5% level

Date: 07/27/17 Time: 13:55				
Sample (adjusted): 1986 2015				
Included observations: 27 after adjustments				
Trend assumption: Linear deterministic trend				
Series: MCR ASI NLS TUNR VSTR FDIR GDP				
Lags interval (in first differences): 1 to 1				
Unrestricted Cointegration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.895935	199.2246	125.6154	0.0000
At most 1 *	0.869024	138.1305	95.75366	0.0000
At most 2 *	0.826304	83.24654	69.81889	0.0029
At most 3	0.513211	35.98437	47.85613	0.3971
At most 4	0.338079	16.54639	29.79707	0.6733
At most 5	0.144610	5.405922	15.49471	0.7643
At most 6	0.043067	1.188596	3.841466	0.2756
Trace test indicates 3 cointegrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized		Max-Eigen	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.895935	61.09409	46.23142	0.0007
At most 1 *	0.869024	54.88398	40.07757	0.0006
At most 2 *	0.826304	47.26217	33.87687	0.0007
At most 3	0.513211	19.43799	27.58434	0.3814
At most 4	0.338079	11.14047	21.13162	0.6333
At most 5	0.144610	4.217326	14.26460	0.8357
At most 6	0.043067	1.188596	3.841466	0.2756
Max-eigenvalue test indicates 3 cointegrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				

Source : Computation by author using E-view 7

Table 18C for Kenya, the trace and Maximum eigenvalue tests shows the existence of three(3) cointegrating vectors each at 5% level of significance at p-values of 0.0000, 0.0000, 0.0029 for trace tests and 0.0007, 0.0006 and 0.0007 for eigenvalue tests between FDI and stock market development indicators. This results confirms that FDI has long-run (cointegration) equilibrium effect on stock market indicators and we reject the null hypothesis to accept the alternative that there is Cointegration.

ii) Panel Data Pooled Cointegration Results

Table 18D: RESULT – Residual Panel Cointegration Test

Pedroni Residual Cointegration Test					
Series: FDIR GDP MCR NLS TUNR VSTR ASI					
Sample: 1984 2015					
Included observations: 96					
Cross-sections included: 3					
Null Hypothesis: No cointegration					
Newey-West automatic bandwidth selection and Bartlett kernel					
Alternative hypothesis: common AR coefs. (within-dimension)					
				Weighted	
		Statistic	Prob.	Statistic	Prob.
Panel v-Statistic		1.662252	0.0482	1.293912	0.0978
Panel rho-Statistic		-1.449140	0.0736	-1.669227	0.0475
Panel PP-Statistic		-4.795043	0.0000	-4.878976	0.0000
Panel ADF-Statistic		-0.313898	0.3768	-0.771467	0.2202

Source: Author's E-views computation (See appendix 18 for details)

From table 18D, Panel V-statistics confirm a positive and significant long-run relationship having a statistic of 1.6623 and a p-value of 0.0482 while Panel rho weighted statistics (statistic of -1.6692 and p-value 0.0475) and Philip Peron (statistic of -4.7950 and p-value of 0.0000)both confirm a negative and significant long-run relationship (cointegration) between foreign direct investments and stock market development indicators.

Table 18E:RESULT – Johansen Fisher Panel Cointegration Tests

Johansen Fisher Panel Cointegration Test				
Series: FDIR GDP MCR NLS TUNR VSTR ASI				
Sample: 1984 2015				
Included observations: 96				
Lags interval (in first differences): 1 1				
Unrestricted Cointegration Rank Test (Trace and Maximum Eigenvalue)				
Hypothesized	Fisher Stat.*		Fisher Stat.*	
No. of CE(s)	(from trace test)	Prob.	(from max-eigen test)	Prob.
None	86.22	0.0000	55.56	0.0000
At most 1	42.43	0.0000	23.62	0.0006
At most 2	22.13	0.0011	21.94	0.0012
At most 3	6.763	0.3433	4.355	0.6287
At most 4	4.772	0.5733	2.902	0.8210
At most 5	5.001	0.5436	3.326	0.7670
At most 6	10.57	0.1027	10.57	0.1027

Source: Author's E-views computation (See appendix 19 for details)

The Panel Cointegration Trace and Maximum Eigenvalue Tests reveal the existence of six (6) cointegrating vectors (with p-values of 0.0000, 0.0000, 0.0011, 0.0000, 0.0006, 0.0012 respectively and also Fisher statistic of 86.22, 42.43, 22.13, 55.56, 23.62 and 21.94 respectively) between foreign direct investments and Stock Market Development indicators. This confirms the cointegration result of the residual cointegration tests of the existence of cointegration between foreign direct investments and stock market development indicators.

Decision rule: We reject null hypothesis of the cointegration relationship to accept the alternative that there is Cointegration. We thus, conclude that the foreign direct investments have long-run equilibrium effect on stock market development indicators.

4.3.0 **Test of Hypothesis**

This Sub-section tests the hypotheses stated in chapter one and modelled in chapter three. In testing for these hypotheses, we proceeded to test the data for each country in the study area, to ascertain what the individual country result is;

4.3.0.0 **Test of Hypothesis – Individual Country Output**

4.3.0.1 **Restatement of Hypothesis One**

Ho_1: Foreign direct investment has no significant effect on stock market capitalization ratio of the selected Sub-Saharan African countries.

H_{i1}: Foreign direct investment has significant effect on stock market capitalization ratio of the selected Sub-Saharan African countries.

Table 19A: Regression Result for Nigeria – Model 1

Dependent Variable: MCR				
Method: Least Squares				
Date: 03/11/17 Time: 16:19				
Sample (adjusted): 1989 2015				
Included observations: 27 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-39.18274	16.59034	-2.361780	0.0270
FDIR(-2)	15.58982	4.593223	3.394092	0.0025
GDP(-5)	1.070961	1.314543	0.814702	0.4236
MCR(-1)	0.820567	0.079012	10.38533	0.0000
R-squared	0.870299	Mean dependent var		71.40333
Adjusted R-squared	0.853381	S.D. dependent var		88.83012
S.E. of regression	34.01376	Akaike info criterion		10.02736
Sum squared resid	26609.53	Schwarz criterion		10.21934
Log likelihood	-131.3694	Hannan-Quinn criter.		10.08445
F-statistic	51.44364	Durbin-Watson stat		1.536660
Prob(F-statistic)	0.000000			

Source: Athur's computer generated Eviews result

In table 19A, the R^2 and Adjusted R^2 both showed 87.03% and 85.33% respectively. This shows that the chosen regression model best fits the data. Hence, the goodness of fit regression model is 87.03% and implies that chosen explainatory variables explains

variations in the dependent variables to the tune of 87.03%. Also, with a high Adjusted R^2 (85.33%) implies that the model can take on more variables conveniently without the R^2 falling beyond 85.33%, which is very commendable. F-statistics of 51.444 is considered very good being positive and significantly large enough and it shows that there is significant positive relationship between the dependent and explanatory variables. The overall probability (F-statistics) of 0.0000 is rightly signed and very significant and displays a Durbin-Watson of 1.54,which is considered good as it shows little or noeffect of autocorrelation on the chosen data.

Hence, from table 19A, the Nigeria FDIR(-2) at lag 2, has a t-statistic value of 3.394092 and a p-value of 0.0025, was found to have a positive effect on market capitalization and this effect is statistically significant at 5% level since its p-value is well below 0.05. Therefore, we reject null hypothesis to accept the alternative.However, the GDP(-5) at lag 5, has a t-statistic value of 0.814702 and p-value of 0.4236 and this effect is positive and statistically not significant at the 5% level. The GDP is to act as a moderator to the outcome of both the dependent and independent variable. The implication of this result is that a 1% increase in FDIR will result to a 15.590% increase in MCR and the coefficient of the past level of FDIR variable hasa positive sign and is positive at the 5% significance level. This supports the view that thepast level of FDIR in Nigeria positively affects market capitalization.

Table 19B: Regression Result for South Africa – Model 1

Dependent Variable: MCR				
Method: Least Squares				
Date: 03/11/17 Time: 17:16				
Sample (adjusted): 1989 2015				
Included observations: 27 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	94.21424	29.95606	3.145081	0.0045
FDIR(-3)	-7.118410	3.813510	-1.866630	0.0748
GDP(-5)	1.363009	3.217015	0.423688	0.6757
MCR(-1)	0.580001	0.148420	3.907836	0.0007
R-squared	0.501964	Mean dependent var		186.9826
Adjusted R-squared	0.437002	S.D. dependent var		51.15259
S.E. of regression	38.38141	Akaike info criterion		10.26898
Sum squared resid	33882.05	Schwarz criterion		10.46095
Log likelihood	-134.6312	Hannan-Quinn criter.		10.32606
F-statistic	7.727122	Durbin-Watson stat		2.321006
Prob(F-statistic)	0.000959			

Source: Author's E-view computations

The result in table 19B shows R^2 and Adjusted R^2 of 50.2% and 43.7% respectively. This shows that the chosen regression model best fits the data. Hence, the goodness of fit regression model is 50.2% and implies that chosen explainatory variables explains variations in the dependent variables to the tune of 50.2%. Also, with a high Adjusted R^2 (43.7%) implies that the model can take on more variables conveniently without the R^2 falling beyond 43.7%. F-statistics of 7.7271 is considered acceptable being positive and it shows that there is significant positive relationship between the dependent and explanatory variables. The overall probability (F-statistics) of 0.00096 is rightly signed and very significant and displays a Durbin-Watson of 2.3210, showing the absence of autocorrelation on the chosen data.

Hence, from table 19B, the South Africa FDIR(-3) at lag 3, has a t-statistic value of -1.8666 and a p-value of 0.0748, was found to have a negative effect on market capitalization and this effect is statistically significant at 5% level since its p-value is well below 0.05. Therefore, we reject null hypothesis to accept the alternative. However, the GDP(-5) at lag 5, has a t-statistic value of

0.423688 and p-value of 0.6757 and this effect is positive and statistically not significant at the 5% level. The implication of this result is that FDIR has a depressive effect on MCR and that a 1% increase in FDIR will result to a 7.1184% reduction in MCR. It shows that past levels of FDIR negatively affects market capitalization in South Africa.

Table19C: Regression Result for Kenya – Model 1

Dependent Variable: MCR				
Method: Least Squares				
Date: 03/11/17 Time: 15:14				
Sample (adjusted): 1985 2012				
Included observations: 28 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.071185	2.928799	1.390053	0.1773
FDIR(3)	0.393543	2.409522	0.163328	0.8716
GDP(3)	0.473943	0.746994	0.634467	0.5318
MCR(-1)	0.786724	0.118810	6.621686	0.0000
R-squared	0.657589	Mean dependent var		18.22571
Adjusted R-squared	0.614788	S.D. dependent var		13.93962
S.E. of regression	8.651688	Akaike info criterion		7.284950
Sum squared resid	1796.441	Schwarz criterion		7.475264
Log likelihood	-97.98929	Hannan-Quinn criter.		7.343131
F-statistic	15.36375	Durbin-Watson stat		2.028038
Prob(F-statistic)	0.000009			

Source: Author's E-view computation

In table 19C R^2 and Adjusted R^2 both showed 65.76% and 61.48% respectively. This shows that the chosen regression model best fits the data. Hence, the goodness of fit regression model is 65.76% and implies that chosen explainatory variables explains variations in the dependent variables to the tune of 65.76%. Also, with a high Adjusted R^2 (61.48%) implies that the model can take on more variables conveniently without the R^2 falling beyond 61.48%, which is acceptable. The F-statistics of 51.444, probability (F-statistics) of 0.0000 and Durbin-Watson Statistic of 2.0280 (Showing absence of autocorrelation)are considered very good being positive and significant.

Hence, from table 19C, the Kenya FDIR(3) at lead 3, has a t-statistic value of 0.163328 and a p-value of 0.8716, was found to have a positive and statistically insignificant effect on market capitalizationat 5% level since its p-value is well above 0.05. Therefore, we accept null hypothesis to reject the alternative. Similarly, the GDP(3) at lead 3, has a t-statistic value of 0.634467 and p-value of 0.5318 and this effect is positive and statistically not significant at the 5% level. The presence of the GDP is to moderate the outcome of both the dependent and independent variable. The implication of this result is that a 1% increase in future levels of FDIR will positively increase MCR by0.394% in Kenya.

4.3.0.2 **Restatement of Hypothesis Two**

Ho_2: Foreign direct investment has no significant effect on stock market turnover ratio of the selected Sub-Saharan African countries.

H_{i2}: Foreign direct investment has significant effect on stock market turnover ratio of the selected Sub-Saharan African countries.

Table20A: Regression Result for Nigeria – Model 2

Dependent Variable: TUNR				
Method: Least Squares				
Date: 03/11/17 Time: 16:30				
Sample (adjusted): 1985 2012				
Included observations: 28 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.144019	3.076981	1.346781	0.1906
FDIR(2)	-0.788687	0.666723	-1.182931	0.2484
GDP(3)	0.245386	0.370922	0.661556	0.5146
TUNR(-1)	0.637848	0.151486	4.210615	0.0003
R-squared	0.515654	Mean dependent var		6.879643
Adjusted R-squared	0.455110	S.D. dependent var		7.110181
S.E. of regression	5.248497	Akaike info criterion		6.285324
Sum squared resid	661.1213	Schwarz criterion		6.475639
Log likelihood	-83.99454	Hannan-Quinn criter.		6.343505
F-statistic	8.517104	Durbin-Watson stat		1.903420
Prob(F-statistic)	0.000499			

Source: Author's E-view 7 computations

In table 20A, the R^2 and Adjusted R^2 both showed 51.57% and 45.51% respectively. This

shows that the chosen regression model best fits the data. Hence, the goodness of fit regression model is 51.57% and implies that chosen explainatory variables explains variations in the dependent variables to the tune of 51.57%. Also, with a high Adjusted R^2 (45.51%) implies that the model can take on more variables conveniently without the R^2 falling beyond 45.51%, which is good. The F-statistics of 8.5171, probability (F-statistics) of 0.000499 and Durbin-Watson Statistic of 1.90342 (Showing absence of autocorrelation) are considered impressive being positive and significant.

From table 20A, the Nigeria FDIR(2) at lead 2, has a t-statistic value of -1.18293 and a p-value of 0.2484, was found to have a negative and statistically insignificant effect on market turnover ratio at 5% level since its p-value is well above 0.05. Therefore, we accept null hypothesis to reject the alternative. Similarly, the GDP(3) at lead 3, has a t-statistic value of 0.6616 and p-value of 0.5146 and this effect is positive and statistically not significant at the 0.05% level. The implication of this result is that FDIR has a depressive effect on market turnover ratio and that a 1% increase in future FDIR will result to a 0.7887% fall in Market turnover ratio (liquidity) in Nigeria.

Table 20B: Regression Result for South Africa – Model 2

Dependent Variable: TUNR				
Method: Least Squares				
Date: 03/11/17 Time: 17:06				
Sample (adjusted): 1985 2011				
Included observations: 25 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.801314	3.282158	1.767530	0.0917
FDIR(2)	-0.681900	0.698716	-0.975934	0.3402
GDP(4)	0.152059	0.672075	0.226252	0.8232
TUNR(-1)	0.799499	0.140709	5.681943	0.0000
R-squared	0.760721	Mean dependent var		18.47720
Adjusted R-squared	0.726538	S.D. dependent var		11.81435
S.E. of regression	6.178143	Akaike info criterion		6.625559
Sum squared resid	801.5584	Schwarz criterion		6.820579
Log likelihood	-78.81949	Hannan-Quinn criter.		6.679649
F-statistic	22.25456	Durbin-Watson stat		2.259863
Prob(F-statistic)	0.000001			

Source: Author's E-view 7 computations

The R^2 and Adjusted R^2 intable 20B both showed 76.07% and 72.65% respectively. This shows that the chosen regression model best fits the data. Hence, the goodness of fit regression model is 76.07% and implies that chosen explainatory variables explains variations in the dependent variables to the tune of 76.07%. Also, with a high Adjusted R^2 (72.65%) implies that the model can take on more variables conveniently without the R^2 falling beyond 72.65%, which is acceptable. The F-statistics of 22.255, probability (F-statistics) of 0.000001 and Durbin-Watson Statistic of 2.2599 (Showing absence of autocorrelation) are considered very impressive and significant.

From table 20B, the South Africa FDIR(2) at lead 2, has a t-statistic value of -0.9759 and a p-value of 0.3402, was found to have a negative and statistically insignificant effect on market turnover ratio at 5% level since its p-value is well above 0.05. Therefore, we accept null hypothesis to reject the alternative. Similarly, the GDP(4) at lead 4, has a t-statistic value of

0.2263 and p-value of 0.8232 and this effect is positive and statistically not significant at the 5% level. The presence of the GDP is to moderate the outcome of both the dependent and independent variable. The implication of this result is that FDIR has a depressive effect on market turnover and a 1% increase in future levels of FDIR will result to a 0.682% drop in Market turnover (liquidity)in South Africa.

Table 20C:Regression Result for Kenya – Model 2

Dependent Variable: TUNR				
Method: Least Squares				
Date: 03/11/17 Time: 15:19				
Sample (adjusted): 1985 2012				
Included observations: 26 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.499952	0.654159	0.764266	0.4528
FDIR(3)	0.609132	0.608115	1.001673	0.3274
GDP(3)	-0.141960	0.182667	-0.777149	0.4453
TUNR(-1)	0.829215	0.122386	6.775420	0.0000
R-squared	0.691369	Mean dependent var		3.833462
Adjusted R-squared	0.649283	S.D. dependent var		3.198641
S.E. of regression	1.894280	Akaike info criterion		4.256193
Sum squared resid	78.94253	Schwarz criterion		4.449746
Log likelihood	-51.33051	Hannan-Quinn criter.		4.311929
F-statistic	16.42748	Durbin-Watson stat		2.059488
Prob(F-statistic)	0.000008			

Source: Author's E-view 7 computations

Table 20C shows an R^2 and Adjusted R^2 of 69.14% and 64.93% respectively. This shows that the chosen regression model best fits the data. Hence, the goodness of fit regression model is 69.14% and implies that chosen explainatory variables explains variations in the dependent variables to the tune of 69.14%. Also, with a high Adjusted R^2 (64.93%) implies that the model can take on more variables conveniently without the R^2 falling beyond 64.93%, which is acceptable. The F-statistics of 16.427, probability (F-statistics)

of 0.000008 and Durbin-Watson Statistic of 2.0595 (Showing absence of autocorrelation) are considered very good being positive and significant.

Hence, from table 20C, the Kenya FDIR(3) at lead 3, has a t-statistic value of 1.00167 and a p-value of 0.3274, was found to have a positive and statistically insignificant effect on market turnover ratio at 5% level since its p-value is well above 0.05. Therefore, we accept null hypothesis to reject the alternative. Equally, the GDP(3) at lead 3, has a t-statistic value of -0.7772 and p-value of 0.4453 and this effect is negative and statistically not significant at the 5% level. The presence of the GDP is to moderate the outcome of both the dependent and independent variable. The implication of this result is that a 1% increase in future levels of FDIR will have a positive effect on market liquidity and result to a 0.6091% increase in Market turnover (liquidity) ratio in Kenya.

4.3.0.3 **Restatement of Hypothesis Three**

Ho_3: Foreign direct investment has no significant effect on value of stock traded of the selected Sub-Saharan African countries.

H_{i3}: Foreign direct investment has significant effect on value of stock traded of the selected Sub-Saharan African countries.

Table 21A: Regression Result for Model 3 (Nigeria)

Dependent Variable: VSTR				
Method: Least Squares				
Date: 03/11/17 Time: 16:23				
Sample (adjusted): 1985 2010				
Included observations: 26 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.220012	5.249855	1.565760	0.1317
FDIR(2)	-1.312808	1.094307	-1.199671	0.2430
GDP(5)	-0.094709	0.547954	-0.172840	0.8644
VSTR(-1)	0.646570	0.155433	4.159792	0.0004
R-squared	0.559480	Mean dependent var		9.195385
Adjusted R-squared	0.499409	S.D. dependent var		10.58616
S.E. of regression	7.489962	Akaike info criterion		7.005643
Sum squared resid	1234.190	Schwarz criterion		7.199196
Log likelihood	-87.07336	Hannan-Quinn criter.		7.061379
F-statistic	9.313671	Durbin-Watson stat		2.038593
Prob(F-statistic)	0.000362			

Source: Author's E-view7Compuations

From table 21A, R^2 and Adjusted R^2 of 55.95% and 49.94% respectively, shows that the chosen regression model best fits the data. Hence, the goodness of fit regression model is 55.95% and implies that chosen explainatory variables explains variations in the dependent variables to the tune of 55.95%. Also, with an Adjusted R^2 (49.94%) implies that the model can take on more variables conveniently without the R^2 falling beyond 49.94%, which is acceptable. The F-statistics of 9.3137, probability (F-statistics) of 0.000362 and Durbin-Watson Statistic of 2.03859 (Showing absence of autocorrelation) are considered very insightful being positive and significant.

From table 21A, the Nigeria FDIR(2) at lead 2, has a t-statistic value of -1.19967 and a p-value of 0.2430, was found to have a negative and statistically insignificant effect on value of stock traded ratio at 5% level since its p-value is well above 0.05. Therefore, we accept null hypothesis to reject the alternative. Equally, the GDP(5) at lead 5, has a t-statistic value of -0.17284 and p-value of 0.8644 and this effect is negative and statistically not significant at the 5% level. The presence of the GDP is to moderate the outcome of both the dependent and independent variable.

The implication of this result is that a 1% increase in FDIR will result to a 1.3128% fall in value of stock traded ratio, showing a depressive effect of the variable on value of stock traded inNigeria.

Table 21B:**Regression Result for Model 3 (South Africa)**

Dependent Variable: VSTR				
Method: Least Squares				
Date: 03/11/17 Time: 17:03				
Sample (adjusted): 1985 2011				
Included observations: 27 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.423633	4.699021	1.154205	0.2603
FDIR(2)	-0.086259	1.182839	-0.072925	0.9425
GDP(4)	0.658727	1.165406	0.565234	0.5774
VSTR(-1)	0.873794	0.108224	8.073944	0.0000
R-squared	0.844035	Mean dependent var		32.05556
Adjusted R-squared	0.823691	S.D. dependent var		26.18049
S.E. of regression	10.99296	Akaike info criterion		7.768341
Sum squared resid	2779.439	Schwarz criterion		7.960317
Log likelihood	-100.8726	Hannan-Quinn criter.		7.825425
F-statistic	41.48953	Durbin-Watson stat		1.837632
Prob(F-statistic)	0.000000			

Source: Author's E-view 7 computations

In table 21B, R^2 and Adjusted R^2 of 84.40% and 82.37% respectively, shows that the chosen regression model best fits the data. Hence, the goodness of fit regression model is 84.40% and implies that chosen explainatory variables explains variations in the dependent variables to the tune of 84.40%. Also, with an Adjusted R^2 (82.37%) implies that the model can take on more variables conveniently without the R^2 falling beyond 82.37%, which is considered very good. The F-statistics of 41.490, probability (F-statistics) of 0.000000 and Durbin-Watson Statistic of 1.8376 (Showing absence of autocorrelation) are considered very insightful being positive and significant.

From table 21B, the South Africa FDIR(2) at lead 2, has a t-statistic value of -0.07293 and a p-value of 0.9425, was found to have a negative and statistically insignificant effect on value of

stock traded ratio at 5% level of significance since its p-value is well above 0.05. Therefore, we accept null hypothesis to reject the alternative. Equally, the GDP(4) at lead 4, has a t-statistic value of 0.5652 and p-value of 0.5774 and this effect is positive and statistically not significant at the 5% level. The presence of the GDP is to moderate the outcome of both the dependent and independent variable. The implication of this result is that a 1% increase in FDIR will result to a 0.086% fall in value of stock traded ratio in South Africa and means that future FDIR have depressive effect on value of stock traded.

Table 21C:**Regression Result for Model 3 (Kenya)**

Dependent Variable: VSTR				
Method: Least Squares				
Date: 03/11/17 Time: 15:28				
Sample (adjusted): 1984 2012				
Included observations: 29 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.316444	0.243911	1.297372	0.2063
FDIR(3)	-0.147474	0.216629	-0.680769	0.5023
GDP(3)	-0.052148	0.066488	-0.784322	0.4402
VSTR(1)	0.813139	0.109713	7.411483	0.0000
R-squared	0.694390	Mean dependent var		1.402414
Adjusted R-squared	0.657717	S.D. dependent var		1.324030
S.E. of regression	0.774623	Akaike info criterion		2.454562
Sum squared resid	15.00102	Schwarz criterion		2.643154
Log likelihood	-31.59114	Hannan-Quinn criter.		2.513626
F-statistic	18.93455	Durbin-Watson stat		1.563656
Prob(F-statistic)	0.000001			

Source: Author's E-view 7 computations

In table 21C, R^2 and Adjusted R^2 of 69.44% and 65.77% respectively, shows that the chosen regression model best fits the data. Hence, the goodness of fit regression model is 69.44% and implies that chosen explainatory variables explains variations in the dependent variables to the tune of 69.44%. Also, with an Adjusted R^2 (65.77%) implies that the model can take on more variables conveniently without the R^2 falling beyond 65.77%, which is considered very good. The F-statistics of 18.93455, probability (F-

statistics) of 0.000001 and Durbin-Watson Statistic of 1.56365 (Showing absence of autocorrelation) are considered very insightful being positive and significant.

From table 21C, the Kenya FDIR(2) at lead 2, has a t-statistic value of -0.6808 and a p-value of 0.5023, was found to have a negative and statistically insignificant effect on value of stock traded ratio at 5% level of significance since its p-value is well above 0.05. Therefore, we accept null hypothesis to reject the alternative. Equally, the GDP(3) at lead 3, has a t-statistic value of -0.78432 and p-value of 0.4402 and this effect is negative and statistically not significant at the 5% level. The presence of the GDP is to moderate the outcome of both the dependent and independent variable. The implication of this result is that a 1% increase in FDIR will result to a 0.086% fall in value of stock traded ratio in Kenya, showing that future levels of FDIR has a depressive effect on value of of stock traded.

4.3.0.4 **Restatement of Hypothesis Four**

Ho_4: Foreign direct investment has no significant effect on the number of listed stocks of the selected Sub-Saharan African countries.

H_{i4}: Foreign direct investment has significant effect on the number of listed stocks of the selected Sub-Saharan African countries.

Table 22A:**Regression Result for Model 4 (Nigeria)**

Dependent Variable: NLS				
Method: Least Squares				
Date: 03/11/17 Time: 16:36				
Sample (adjusted): 1985 2012				
Included observations: 28 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	11.69203	8.327518	1.404024	0.1731
FDIR(2)	1.005416	1.013402	0.992120	0.3310
GDP(3)	-0.131302	0.561918	-0.233667	0.8172
NLS(-1)	0.936268	0.039222	23.87070	0.0000
R-squared	0.966592	Mean dependent var		173.5357
Adjusted R-squared	0.962416	S.D. dependent var		39.81762
S.E. of regression	7.719283	Akaike info criterion		7.056884
Sum squared resid	1430.096	Schwarz criterion		7.247199
Log likelihood	-94.79637	Hannan-Quinn criter.		7.115065
F-statistic	231.4634	Durbin-Watson stat		1.943555
Prob(F-statistic)	0.000000			

Source: Author's Eviews 7 compuation

The results from table 22A are considered very insightful with R^2 and Adjusted R^2 of 96.66% and 96.24% respectively, shows that the chosen regression model best fits the data. Hence, the goodness of fit regression model is 96.66% and implies that chosen explainatory variables explains variations in the dependent variables to the tune of 96.66%. Also, with an Adjusted R^2 (96.24%) implies that the model can take on more variables conveniently without the R^2 falling beyond 96.24%, which is considered very good. The F-statistics of 231.463 is considered very high and good, probability (F-statistics) of 0.000000 and Durbin-Watson Statistic of 1.94356 (Showing absence of autocorrelation) are considered very impressive being positive and significant.

From table 22A, the Nigeria FDIR(2) at lead 2, has a t-statistic value of 0.9921 and a p-value of 0.3310, was found to have a positive and statistically insignificant effect on number of listed shares at 5% level of significance since its p-value is well above 0.05. Therefore, we accept null hypothesis to reject the alternative. Equally, the GDP(3) at lead 3, has a t-statistic value of -

0.2337 and p-value of 0.8172 (acting as a moderating variable in the model)is found to havea negative and statistically not significant effect at the 5% level. This shows that future levels of FDIR will positively affect number of listed stocks and implies that a 1% increase in FDIR will result to a 1.0054% increase in number of listed stocksin Nigeria.

Table 22B:**Regression Result for Model 4 (South Africa)**

Dependent Variable: NLS				
Method: Least Squares				
Date: 03/11/17 Time: 17:01				
Sample (adjusted): 1985 2011				
Included observations: 27 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	70.45124	41.82630	1.684377	0.1056
FDIR(2)	13.20146	4.324059	3.053024	0.0051
GDP(4)	-13.25399	4.337365	-3.055769	0.0051
NLS(-1)	0.831327	0.073044	11.38114	0.0000
R-squared	0.921898	Mean dependent var		535.0741
Adjusted R-squared	0.911710	S.D. dependent var		146.0440
S.E. of regression	43.39487	Akaike info criterion		10.51451
Sum squared resid	43311.64	Schwarz criterion		10.70649
Log likelihood	-137.9459	Hannan-Quinn criter.		10.57160
F-statistic	90.49513	Durbin-Watson stat		1.610564
Prob(F-statistic)	0.000000			

Source: Author's E-view 7 computations

Table 22B shows R^2 and Adjusted R^2 of 92.19% and 91.17% respectively, and indicates that the chosen regression model best fits the data. Hence, the goodness of fit regression model is 92.19% and implies that chosen explainatory variables explains variations in the dependent variables to the tune of 92.19%. Also, with an Adjusted R^2 (91.17%) implies that the model can take on more variables conveniently without the R^2 falling beyond 91.17%, which is considered very good. The F-statistics of 90.495 is considered high and good, probability (F-statistics) of 0.000000 and Durbin-Watson Statistic of 1.6106 (Showing absence of autocorrelation) are considered very impressive being positive and significant.

From table 22B, the South Africa FDIR(2) at lead 2, has a t-statistic value of 3.05302 and a p-value of 0.0051, was found to have a positive and statistically very significant effect on number of listed shares at 5% level of significance since its p-value is well below 0.05. Therefore, we reject null hypothesis to accept the alternative. In same vein, the GDP(4) at lead 4, has a t-statistic value of -3.0558 and p-value of 0.0056 (acting as a moderating variable in the model) is found to have a negative and statistically significant effect at the 5% level. This shows that future levels of FDIR will positively and significantly affect number of listed stocks and implies that a 1% increase in future levels of FDIR will result to a 13.2015% increase in number of listed stocks in South Africa.

Table 22C: **Regression Result for Model 4 (Kenya)**

Dependent Variable: NLS				
Method: Least Squares				
Date: 03/11/17 Time: 15:32				
Sample (adjusted): 1984 2012				
Included observations: 29 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.147690	2.609655	-0.439786	0.6639
FDIR(3)	-0.092810	1.002713	-0.092559	0.9270
GDP(3)	0.467866	0.326993	1.430810	0.1649
NLS(1)	0.986843	0.056520	17.46000	0.0000
R-squared	0.936377	Mean dependent var		44.79310
Adjusted R-squared	0.928742	S.D. dependent var		13.51819
S.E. of regression	3.608564	Akaike info criterion		5.531939
Sum squared resid	325.5434	Schwarz criterion		5.720532
Log likelihood	-76.21312	Hannan-Quinn criter.		5.591004
F-statistic	122.6466	Durbin-Watson stat		1.822276
Prob(F-statistic)	0.000000			

Source: Author's E-view 7 compuations

The results from table 22C are considered very insightful with R^2 and Adjusted R^2 of 93.64% and 92.87% respectively, shows that the chosen regression model best fits the data. Hence, the goodness of fit regression model is 93.64% and implies that chosen

explainatory variables explains variations in the dependent variables to the tune of 93.64%. Also, with an Adjusted R^2 (92.87%) implies that the model can take on more variables conveniently without the R^2 falling beyond 92.87%, which is considered very good. The F-statistics of 122.6466 is considered very high and good, probability (F-statistics) of 0.000000 and Durbin-Watson Statistic of 1.82228 (Showing absence of autocorrelation) are considered very impressive being positive and significant.

From table 22C, the Kenya FDIR(3) at lead 3, has a t-statistic value of -0.09256 and a p-value of 0.9270, was found to have a negative and statistically insignificant effect on number of listed shares at 5% level of significance since its p-value is well above 0.05. Therefore, we accept null hypothesis to reject the alternative. Equally, the GDP(3) at lead 3, has a t-statistic value of 1.43081 and p-value of 0.1649 (acting as a moderating variable in the model) is found to have a positive and statistically not significant effect at the 5% level. This shows that future levels of FDIR in Kenya will have a depressive effect on number of listed stocks and further indicates that a 1% increase in FDIR will result to a 0.0928% fall in number of listed stocks in Kenya.

4.3.0.5. **Restatement of Hypothesis Five**

Ho_5: Foreign direct investment has no significant effect on All Share Index of the selected Sub-Saharan African countries.

H_{i5}: Foreign direct investment has significant effect on All Share Index of the selected Sub-Saharan African countries.

Table 23A: **Regression Result for Model 5 (Nigeria)**

Dependent Variable: ASI				
Method: Least Squares				
Date: 03/11/17 Time: 16:39				
Sample (adjusted): 1985 2012				
Included observations: 28 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	229.1870	4457.599	0.051415	0.9594
FDIR(2)	-162.5714	1015.491	-0.160091	0.8741
GDP(3)	897.3815	545.4939	1.645081	0.1130
ASI(-1)	0.830768	0.117774	7.053903	0.0000
R-squared	0.735582	Mean dependent var		12636.25
Adjusted R-squared	0.702530	S.D. dependent var		14103.44
S.E. of regression	7692.134	Akaike info criterion		20.86535
Sum squared resid	1.42E+09	Schwarz criterion		21.05566
Log likelihood	-288.1149	Hannan-Quinn criter.		20.92353
F-statistic	22.25510	Durbin-Watson stat		2.116927
Prob(F-statistic)	0.000000			

Source: Author's Eview 7 computation

Table 23A shows an R^2 and Adjusted R^2 of 73.56% and 70.25% respectively, and indicates that the chosen regression model best fits the data. Hence, the goodness of fit regression model is 73.56% and implies that chosen explainatory variables explains variations in the dependent variables to the tune of 73.56%. Also, with an Adjusted R^2 (70.254%) implies that the model can take on more variables conveniently without the R^2 falling beyond 70.25%, which is considered good. The F-statistics of 22.2551 is considered good, probability (F-statistics) of 0.000000 and Durbin-Watson Statistic of 2.11693 (Showing absence of autocorrelation) are considered very impressive being positive and significant.

From table 23A, the Nigeria FDIR(2) at lead 2, has a t-statistic value of -0.16009 and a p-value of 0.8741, was found to have a negative and statistically insignificant effect on All share index at 5% level of significance since its p-value is well above 0.05. Therefore, we accept null

hypothesis to reject the alternative. Equally, the GDP(3) at lead 3, has a t-statistic value of 1.64508 and p-value of 0.1130 (acting as a moderating variable in the model) is found to have a positive and statistically insignificant effect at the 5% level. This result shows that future levels of FDIR is depressive to All share index and a 1% increase in FDIR will result to a 162.57% decline in All share index in Nigeria.

Table23B: **Regression Result for model 5 (South Africa)**

Dependent Variable: ASI				
Method: Least Squares				
Date: 03/11/17 Time: 16:56				
Sample (adjusted): 1985 2013				
Included observations: 29 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-26.55352	837.6787	-0.031699	0.9750
FDIR(2)	114.2853	249.8078	0.457493	0.6513
GDP(2)	-260.8638	225.6372	-1.156120	0.2586
ASI(-1)	1.157894	0.048467	23.89026	0.0000
R-squared	0.964978	Mean dependent var		11587.30
Adjusted R-squared	0.960775	S.D. dependent var		12733.21
S.E. of regression	2521.843	Akaike info criterion		18.63081
Sum squared resid	1.59E+08	Schwarz criterion		18.81940
Log likelihood	-266.1467	Hannan-Quinn criter.		18.68987
F-statistic	229.6118	Durbin-Watson stat		2.394348
Prob(F-statistic)	0.000000			

Source : Computation by author using E-view 7

The output in Table 23B is noteworthy and shows an R^2 and Adjusted R^2 of 96.50% and 96.08% respectively, and indicates that the chosen regression model best fits the data. Hence, the goodness of fit regression model is 96.50% and implies that chosen explainatory variables explains variations in the dependent variables to the tune of 96.50%. Also, with an Adjusted R^2 (96.08%) implies that the model can take on more variables conveniently without the R^2 falling beyond 96.08%, which is considered verygood. The F-statistics of 229.2551 is considered high

and very encouraging, probability (F-statistics) of 0.000000 and Durbin-Watson Statistic of 2.39435 (Showing absence of autocorrelation) are considered very impressive being positive and significant.

From table 23B, South Africa FDIR(2) at lead 2, has a t-statistic value of 0.45749 and a p-value of 0.6513, was found to have a positive and statistically insignificant effect on All share index at 5% level of significance since its p-value is well above 0.05. Therefore, we accept null hypothesis to reject the alternative. Equally, the GDP(2) at lead 2, has a t-statistic value of -1.15612 and p-value of 0.2586 (acting as a moderating variable in the model) is found to have a negative and statistically insignificant effect at the 5% level. This result shows that future levels of FDIR will positively affect All share index and a 1% increase in FDIR will result to a 114.29% rise in All share index in South Africa.

Table23C :Regression Result for Model 5 (Kenya)

Dependent Variable: ASI				
Method: Least Squares				
Date: 03/11/17 Time: 15:36				
Sample (adjusted): 1984 2012				
Included observations: 29 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	361.5582	336.6894	1.073863	0.2931
FDIR(3)	-217.1057	250.0215	-0.868348	0.3935
GDP(3)	-47.41612	76.93812	-0.616289	0.5433
ASI(1)	0.867318	0.112955	7.678451	0.0000
R-squared	0.709496	Mean dependent var		2498.447
Adjusted R-squared	0.674635	S.D. dependent var		1543.096
S.E. of regression	880.1933	Akaike info criterion		16.52560
Sum squared resid	19368506	Schwarz criterion		16.71419
Log likelihood	-235.6212	Hannan-Quinn criter.		16.58467
F-statistic	20.35242	Durbin-Watson stat		1.883855
Prob(F-statistic)	0.000001			

Source:Author's E-views 7 computations

The table 23C shows an R^2 and Adjusted R^2 of 70.95% and 67.46% respectively, and indicates that the chosen regression model best fits the data. Hence, the goodness of fit regression model is 70.95% and implies that chosen explainatory variables explains variations in the dependent variables to the tune of 70.95%. Also, with an Adjusted R^2 (67.46%) implies that the model can take on more variables conveniently without the R^2 falling beyond 67.46%, which is considered good. The F-statistics of 20.3524 is considered good, probability (F-statistics) of 0.000001 and Durbin-Watson Statistic of 1.88386 (Showing absence of autocorrelation) are considered very impressive being positive and significant.

From table 23C, the Kenya FDIR(3) at lead 3, has a t-statistic value of -0.86835 and a p-value of 0.3935, was found to have a negative and statistically insignificant effect on All share index at 5% level of significance since its p-value is well above 0.05. Therefore, we accept null hypothesis to reject the alternative. Equally, the GDP(3) at lead 3, has a t-statistic value of -0.61629 and p-value of 0.5433 (acting as a moderating variable in the model) is found to have a negative and statistically insignificant effect at the 5% level. This result shows that future levels of FDIR is depressive to All share index with a negative coefficient of 217.106 and implies that a 1% increase in FDIR will result to a 217.106% decline in All share index in Kenya.

4.3.0.6. **Restatement of Hypothesis Six**

Ho_6: Foreign direct investment has no significant Causal effect on stock market development indicators of the selected Sub-Saharan African countries.

H_{i6}: Foreign direct investment has significant Causal effect on stock market development indicators of the selected Sub-Saharan African countries.

Table24A :**Pairwise Granger Causality Test for Model 6 - Nigeria**

Pairwise Granger Causality Tests				
Date: 10/31/16 Time: 05:47				
Sample: 1984 2015				
Lags: 2				
Null Hypothesis:	Obs	F-Statistic	Prob.	Decision
MCR does not Granger Cause FDIR	30	1.00072	0.3819	Accept
FDIR does not Granger Cause MCR		6.34489	0.0059	Reject
NLS does not Granger Cause FDIR	30	3.38751	0.0499	Reject
FDIR does not Granger Cause NLS		3.10845	0.0623	Reject
TUNR does not Granger Cause FDIR	30	2.31063	0.1000	Reject
FDIR does not Granger Cause TUNR		0.92966	0.4079	Accept
VSTR does not Granger Cause FDIR	30	1.55293	0.2314	Accept
FDIR does not Granger Cause VSTR		0.12750	0.8809	Accept
ASI does not Granger Cause FDIR	30	1.51599	0.2391	Accept
FDIR does not Granger Cause ASI		0.20905	0.8128	Accept

Source: Author's E-views computation

From the Granger Causality Test result in Table 26A, for Nigeria, the test was carried out with a lag 2 period, Stock market Development is unbundled into five variants and their causal relationship with foreign direct investment tested. The choice of a lag of 2 is aimed at not sacrificing greater degrees of freedom which may be prejudicial to the outcome of the test. From the results, there was a Bidirectional causality relationship from NLS to FDIR with a feedback returning from FDIR to NLS (since the p-values – 0.0499 and 0.0623 are less than the 5% chosen level of significance. While, there was a Unidirectional relationship from FDIR to MCR (p-value, 0.0059) and fromTUNR to FDIR (p-value, 0.1). There were however, no causal relationships between FDIR and VSTR, and FDIR and ASI for the Nigeria stock market.

Decision: We reject the null hypothesis for NLS-FDIR, that there exists a Bi-directional causal relationship while for FDIR-MCR and TUNR-FDIR, we also reject the null that there exists a

Uni-directional causal relationship between these variables. Meanwhile, the Null for FDIR-VSTR and FDIR-ASI will both be accepted that there is no causal relationship.

Table24B :**Pairwise Granger Causality Test for Model 6–South Africa**

Pairwise Granger Causality Tests				
Date: 10/31/16 Time: 06:06				
Sample: 1984 2015; Lags: 2				
Null Hypothesis:	Obs	F-Statistic	Prob.	Decision
MCR does not Granger Cause FDIR	30	0.91931	0.4119	Accept
FDIR does not Granger Cause MCR		0.05071	0.9506	Accept
ASI does not Granger Cause FDIR	30	0.44233	0.6475	Accept
FDIR does not Granger Cause ASI		0.25331	0.7782	Accept
NLS does not Granger Cause FDIR	30	1.63279	0.2155	Accept
FDIR does not Granger Cause NLS		0.14859	0.8627	Accept
TUNR does not Granger Cause FDIR	27	0.89833	0.4217	Accept
FDIR does not Granger Cause TUNR		2.01309	0.1574	Accept
VSTR does not Granger Cause FDIR	30	0.88551	0.4250	Accept
FDIR does not Granger Cause VSTR		0.43775	0.6503	Accept

Source: Author's E-views computation

From the Granger Causality Test result in Table 26Bfor South Africa carried out using 2 period lag, Stock market Development was broken down into five sub-units and their causal effect with foreign direct investment tested. The results shows No causal relationship between Foreign Direct Investments and the Johannesburg stock market development indicators (Since their respective p-values are greater than 5% the chosen level of significance).

Decision: We Accept the null hypothesis in each of the circumstances that there is no causal effect of foreign direct investments(FDIR) and South Africa stock market development parameters such as MCR, NLS, ASI, VSTR and TUNR (all as previously defined).

Table24C :**Pairwise Granger Causality Test for Model 6- Kenya**

Pairwise Granger Causality Tests				
Date: 10/30/16 Time: 22:41				
Sample: 1984 2015				
Lags: 2				
Null Hypothesis:	Obs	F-Statistic	Prob.	Decision
MCR does not Granger Cause FDIR	30	1.94452	0.1641	Accept
FDIR does not Granger Cause MCR		1.24660	0.3047	Accept
ASI does not Granger Cause FDIR	30	3.38719	0.0499	Reject
FDIR does not Granger Cause ASI		0.58892	0.5624	Accept
TUNR does not Granger Cause FDIR	27	2.50076	0.1050	Reject
FDIR does not Granger Cause TUNR		1.27638	0.2989	Accept
NLS does not Granger Cause FDIR	30	2.01772	0.1540	Accept
FDIR does not Granger Cause NLS		3.57818	0.0430	Reject
VSTR does not Granger Cause FDIR	30	3.88735	0.0339	Reject
FDIR does not Granger Cause VSTR		2.71108	0.0860	Reject

Source: Author's E-views computation

From the Granger Causality Test result in Table 26C for Kenya conducted using a lag of 2 period, Stock market Development was sub-divded into five sub-units and each causal effect with foreign direct investment tested. From the results, we observed a Bi-directional causality relationship running from VSTR to FDIR (p-value.0.0339) with a feedback returning from FDIR to VSTR (0.0860). We equally observed a Unidirectional relationship from ASI to FDIR (p-value, 0.499), TUNR-FDIR (0.1050) and from FDIR to NLS (0.0430). No causal relationships was observed between MCR and FDIR nor vice versal.

Decision: We reject the null hypothesis for VSTR-FDIR, that there exists a Bi-directional causal relationship while for ASI-FDIR , TUNR-FDIR, and FDIR – NLS,we state the existences of a Uni-directional causal relationship between these variables. Meanwhile, the Null Hypothesis for MCR-FDIR will be Accepted that there is no causal relationship.

4.3.1 **Test of Hypothesis – Pooled Effect Output**

The data for the selected study areas were pooled together to enable the researchers determine the optimum overall result for the the Sub-Saharan African region, adopting the following procedures;

Table 25 –POOLED EFFECT PANEL EGLS (Eviews Generalized Least Square)

Dependent Variable: MCR				
Method: Panel EGLS (Period weights)				
Date: 03/10/17 Time: 09:07				
Sample (adjusted): 1987 2015				
Periods included: 29				
Cross-sections included: 3				
Total panel (balanced) observations: 87				
Linear estimation after one-step weighting matrix				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.960574	1.952309	1.516448	0.1332
FDIR(-3)	0.742807	0.767722	0.967547	0.3361
GDP(-3)	0.141980	0.240039	0.591488	0.5558
MCR(-1)	0.966092	0.019408	49.77806	0.0000
	Weighted Statistics			
R-squared	0.976506	Mean dependent var		157.6437
Adjusted R-squared	0.975657	S.D. dependent var		220.1000
S.E. of regression	32.14859	Sum squared resid		85783.15
F-statistic	1149.927	Durbin-Watson stat		1.918879
Prob(F-statistic)	0.000000			
	Unweighted Statistics			
R-squared	0.867073	Mean dependent var		90.19414
Sum squared resid	92369.86	Durbin-Watson stat		1.972464

Source: Author's E-views computation

The pooled effect model results in table 27, was carried out using Generalized Least square period weightings and the R^2 and Adjusted R^2 both showed 97.65% and 97.57% respectively. This shows that the chosen regression model best fits the data . Hence, the goodness of fit panel regression model is 97.65% and implies that chosen explainatory variables explains variations in the dependent variables to the tune of 97.65%. The square of the correlation between the value of the dependent variable and the corresponding fitted values from the model. A correlation

coefficient must be between -1 and +1 by definition. Hence, a high correlation of 97.65% implies that the model fits the data well and thus provides a very good fit to the data. Also, with a high Adjusted R^2 (97.57%) implies that the model can take on more variables conveniently without the R^2 falling beyond 97.57%, which is very commendable. F-statistics of 1149.93 is considered very good being positive and significantly large enough and it shows that there is significant positive relationship between the dependent and explanatory variables. The overall probability (F-statistics) of 0.0000 is rightly signed and very significant. The Durbin-Watson of 1.973is considered very good and lends credence to the reliability of the outcome of this research work.

Table 26 – FIXED EFFECT PANEL Eviews Generalized Least Square (EGLS)

Dependent Variable: MCR				
Method: Panel EGLS (Period weights)				
Date: 03/10/17 Time: 09:17				
Sample (adjusted): 1987 2015				
Periods included: 29				
Cross-sections included: 3				
Total panel (balanced) observations: 87				
Linear estimation after one-step weighting matrix				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.304264	1.839543	1.796242	0.0779
FDIR(-3)	-1.145605	0.532486	-2.151429	0.0359
GDP(-3)	0.123704	0.336255	0.367886	0.7144
MCR(-1)	0.999426	0.014116	70.80128	0.0000
	Effects Specification			
Period fixed (dummy variables)				
	Weighted Statistics			
R-squared	0.990866	Mean dependent var		192.5639
Adjusted R-squared	0.985718	S.D. dependent var		342.5977
S.E. of regression	30.15394	Sum squared resid		50009.32
F-statistic	192.4727	Durbin-Watson stat		2.042680
Prob(F-statistic)	0.000000			
	Unweighted Statistics			
R-squared	0.920039	Mean dependent var		90.19414
Sum squared resid	55564.24	Durbin-Watson stat		1.865182

Source: Author's E-views computation

Fixed Effect panel analysis was also carried out to compare the output of this panel data analysis obtained from the pooled data with the fixed effect. In table 26, The R^2 and Adjusted R^2 both showed 99.09% and 98.57% respectively. This shows that the chosen regression model best fits the data. Hence, the goodness of fit panel regression model is 99.09% and implies that chosen explainatory variables explains variations in the dependent variables to the tune of 99.09%. The square of the correlation between the value of the dependent variable and the corresponding fitted values from the model. Also, with a high Adjusted R^2 (98.57%) implies that the model can take on more variables conveniently without the R^2 falling beyond 98.57%, which is very commendable. F-statistics of 192.47 is considered very good being positive and significantly large enough and it shows that there is significant positive relationship between the dependent and explanatory variables. The overall probability (F-statistics) of 0.0000 is rightly signed and very significant and shows that FDI has significant effect on stock market development variables. The Durbin-Watson of 2.043 is considered good and shows that the outcome of this academic exercise will be very reliable.

Table 27 – RANDOM EFFECT PANEL Eviews Generalized Least Square (EGLS)

Dependent Variable: MCR				
Method: Panel EGLS (Period random effects)				
Date: 03/10/17 Time: 09:27				
Sample (adjusted): 1987 2015				
Periods included: 29				
Cross-sections included: 3				
Total panel (balanced) observations: 87				
Swamy and Arora estimator of component variances				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.079030	5.863183	1.036814	0.3028
FDIR(-3)	-0.359822	2.015841	-0.178497	0.8588
GDP(-3)	0.398056	1.000971	0.397670	0.6919
MCR(-1)	0.948503	0.040433	23.45843	0.0000
	Effects Specification			
			S.D.	Rho
Period random			9.559506	0.0838
Idiosyncratic random			31.60040	0.9162
	Weighted Statistics			
R-squared	0.876369	Mean dependent var		79.89166
Adjusted R-squared	0.871900	S.D. dependent var		88.74925
S.E. of regression	31.76429	Sum squared resid		83744.51
F-statistic	196.1170	Durbin-Watson stat		1.888207
Prob(F-statistic)	0.000000			
	Unweighted Statistics			
R-squared	0.868292	Mean dependent var		90.19414
Sum squared resid	91522.94	Durbin-Watson stat		1.905335

Source: Author's E-views computation

The Random effect panel model was also carried out with above results in table 29, to compare the outcome of the process with earlier results and be able to ascertain which procedure gives the best output interms of R^2, Adjusted R^2, F-statistics, Probability and Durbin-Watson. The result shows that the Random effect model produced the least R^2 (87.64%), Adjusted R^2 (87.19%), F-statistics (196.12), and Durbin-watson (1.888), this was the least result of the three panel data analytical procedures namely - pooled effect, fixed effect and the random effect model. Of the three test procedures, the fixed effect model of the panel data analysis produced the better result interms of $-R^2$ (99.09%),

Adjusted R^2 (98.57%), F-statistics (192.47), and Durbin-watson (2.043) and the overall probability was significant at 0.0000.

However, we shall further subject the result of above test procedures toRedundant Fixed Effects Test and the Correlation Random Effect- Hausman Test for both the fixed effect model and Random effect model respectively as a confirmatory tests to determine which of the panel data testing technique to be adopted for our analysis.

Table28A – Redundant Fixed Effects Test

Redundant Fixed Effects Tests			
Equation: Untitled			
Test period fixed effects			
Effects Test	Statistic	d.f.	Prob.
Period F	5.842214	(28,55)	0.0000

Source: Author's E-views computation (See Appendix 11 for details)

The p-value associated with the test statistics in table 28Ais significant at 0.0000 when compared to chosen significance level of 5%.However, we undertake the Hausman Test to determine its own result and adopt the best outcome for our panel data analysis.

Table 28B –Correlated Random Effect Hausman Test

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Test period random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	3.863123	3	0.2766

Source: Author's E-views computation (See Appendix 12 for details)

The p-value for the Hausman Tests is table 28B isgreater than 5% chosen level of significance and shows that the fixed effect model estimates will give a better result for the purpose of our panel data analysis. (Wooldridge, 2006).

4.3.1.0 Restatement of Hypothesis One

Ho_1: Foreign direct investment has no significant effect on stock market capitalization ratio of the selected Sub-Saharan African countries.

H_{i1}: Foreign direct investment has significant effect on stock market capitalization ratio of the selected Sub-Saharan African countries.

Table 29:RESULT - MARKET CAPITALIZATIONUSING PANEL EGLS TEST FOR MODEL 1

Dependent Variable: MCR				
Method: Panel EGLS (Period weights)				
Date: 07/23/17 Time: 19:54				
Sample (adjusted): 1986 2015				
Periods included: 30				
Cross-sections included: 3				
Total panel (balanced) observations: 90				
Linear estimation after one-step weighting matrix				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.227526	1.863334	2.268797	0.0258
FDIR(-2)	1.704761	0.826962	2.061476	0.0423
GDP(-2)	-0.433170	0.425123	-1.018927	0.3111
NS	-5.941039	2.737767	-2.170031	0.0328
MCR(-1)	0.964874	0.018256	52.85333	0.0000

Source: Author's Eviews computation (See appendix 13 for details)

From table 29, FDIR(-2) at lag 2, has a t-statistic value of 2.06148 and a p-value of 0.0423, was found to have a positive effect on market capitalization and this effect is statistically significant at 5% level since its p-value is well below 0.05. Therefore, we reject null hypothesis to accept the alternative.

However, the GDP (-2) at lag 2, has a t-statistic value of -1.0189 and p-value of 0.3111 and this effect is statistically not significant at the 5% level. Though its presence acts as a moderating variable in the model, it doesnot have any significant effect on market capitalization.This result is very instructive as past levels of FDIR shows positiveand significant effect on market capitalization within the Sub-Saharan Africa at the 5% level of significane and indicates that a

1% increase in past levels of FDIR will result to a 1.7048% increase in market capitalization with due cognizance to national security situation in the region; market capitalization and FDIR show negative and significant relationship with NS (national security) with a t-statistic of -2.170031 and p-value of 0.0328, showing that MCR and FDIR move in opposite direction or both show inverse relation to NS. Hence, a peaceful Sub-Saharan African region will stimulate FDI growth and stock market capitalization development.

Decision Rule: We reject the null hypothesis and accept the alternative that foreign direct investment has a positiveand significant effect on market capitalization in the selected Sub-Saharan Africa.

4.3.2 **Restatement of Hypothesis Two**

Ho_2: Foreign direct investment has no significant effect on stock market turnover ratio of the selected Sub-Saharan African countries.

H_{i2}: Foreign direct investment has significant effect on stock market turnover ratio of the selected Sub-Saharan African countries.

Table 30:RESULT - MARKET TURNOVER RATIO - PANELEGLS TEST FOR MODEL 2

Dependent Variable: TUNR				
Method: Panel EGLS (Period weights)				
Date: 07/23/17 Time: 20:37				
Sample (adjusted): 1987 2015				
Periods included: 29				
Cross-sections included: 3				
Total panel (unbalanced) observations: 83				
Linear estimation after one-step weighting matrix				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.153521	0.100303	1.530576	0.1299
FDIR(-3)	0.081040	0.023415	3.460976	0.0009
GDP(-3)	-0.037904	0.024304	-1.559592	0.1229
NS	1.555766	0.493823	3.150452	0.0023
TUNR(-1)	0.893913	0.032016	27.92077	0.0000

(Source: Author's E-views computation. See appendix 14)

From table 30, FDIR(-3) at lag 3, has a t-statistic value of 3.46098 and a p-value of 0.0009, was found to have a positive effect on market turnover ratio and this effect is statistically significant at 5% level since its p-value is well below 0.05. Therefore, we reject the null hypothesis, to accept the alternative that FDI has significant effect on market turnover ratio.

Also, the GDP(-3) at lag 3, has a t-statistic value of -1.5596 and p-value of 0.1229 and this effect is statistically not significant at the 5% level. Though its presence acts as a moderating variable in the model, it doesnot have any significant effect on market turnover ratio. This result indicates that the coefficients of the past levels of FDIR has a positive sign and stimulative effect on market turnover ratio (liquidity) at the 5% level of significance and the implication is that a 1% increase in foreign direct investment will result to a 0.08104% rise in market turnover. It is note worthy that national security (NS) effects have a positive and significant impact on market turnover ratio.

Decision Rule: We reject the null hypothesis and accept the alternative that foreign direct investment has a positive and significant effect on market turnover ratio.

4.3.3 Restatement ofHypothesis Three

Ho_3: Foreign direct investment has no significant effect on the value of stock traded ratio in the selected Sub-Saharan African countries.

H_{i3}: Foreign direct investment hassignificant effect on the value of stock traded ratio in the selected Sub-Saharan African countries.

Table 31: RESULT - VALUE OF STOCK TRADED PANEL EGLS TEST FOR MODEL 3

Dependent Variable: VSTR				
Method: Panel EGLS (Period weights)				
Date: 07/23/17 Time: 21:14				
Sample (adjusted): 1985 2012				
Periods included: 28				
Cross-sections included: 3				
Total panel (balanced) observations: 84				
Linear estimation after one-step weighting matrix				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.092973	0.328078	-0.283387	0.7776
FDIR(3)	0.254948	0.109873	2.320392	0.0229
GDP(3)	-0.191194	0.089268	-2.141813	0.0353
NS	1.500343	0.880404	1.704153	0.0923
VSTR(-1)	0.998313	0.030616	32.60727	0.0000

Source: Author's Eviews computation (See appendix 15 for details)

From table 31, FDIR(3) at lead 3, has a t-statistic value of 2.30392 and a p-value of 0.0229, was found to have a positive effect on value of stock traded and this effect is statistically significant at 5% level since its p-value is well below 0.05. Therefore, we reject null hypothesis to accept the alternative.

Also from table 31, the GDP(3) at lead 3, has a t-statistic value of -2.14181 and p-value of 0.0353 and this effect is statistically significant at the 5% level. Though its presence acts as a moderating variable in the model, it does have significant effect on value of stock traded. On similar note, national security concerns within the region is seen to have a significant effect on FDI and VSTR with a p-value of 0.0923, which is below chosen level of significance. This result demonstrates that the coefficients of the future levels of FDIR has a positive sign and stimulative effect on value of stock traded ratio at the 5% level of significance and implies that a 1% increase in foreign direct investment will cause a 0.25495% increase in value of stock traded.

This supports the view that future levels of FDIR has positive and significant effect on value of stock traded.

Decision Rule: We reject the null hypothesis and accept the alternative that foreign direct investment has a positiveand significant effect on value of stock traded.

4.3.4 Restatement ofHypothesis Four

Ho_4: Foreign direct investment has no significant effect on the number of listed securities on the stock market of selected Sub-Saharan African countries.

H_{i4}: Foreign direct investment hassignificant effect on the number of listed securities on the stock market of selected Sub-Saharan African countries.

TABLE 32: RESULT -NUMBER OF LISTED SHARES – PANEL EGLS TEST FOR MODEL 4

Dependent Variable: NLS				
Method: Panel EGLS (Period weights)				
Date: 07/23/17 Time: 22:00				
Sample (adjusted): 1985 2010				
Periods included: 26				
Cross-sections included: 3				
Total panel (balanced) observations: 78				
Linear estimation after one-step weighting matrix				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.894773	2.629183	1.861709	0.0667
FDIR	1.710031	0.678496	2.520324	0.0139
GDP(5)	-1.114182	0.553834	-2.011762	0.0479
NS(-1)	-3.271855	2.311782	-1.415295	0.1612
NLS(-1)	0.979339	0.005627	174.0439	0.0000

Source: Author's Eviews computation (See appendix 16 for details)

From table 32, FDIR has a t-statistic value of 2.52032 and a p-value of 0.0139, was found to have a positive effect on number of listed shares and this effect is statistically significant at 5% level since its p-value is well below 0.05. Therefore, we reject the null hypothesis to accept the alternative.

Similarly, the GDP(5) at lead5, has a t-statistic value of -2.01176 and p-value of 0.0479 and this effect is statistically significant at the 5% level. Though its presence acts as a moderating variable in the model, it does have significant effect on number of listed shares while the national security within the sub-region is found to have a non-significant inverse effect on number of listed shares with a t-statistic of -1.41530 and a p-value of 0.1612. The implication of this result is that the coefficients of FDIR has a positive and significant effect on number of listed shares at the 5% level of significance and a 1% increase inforeign direct investment will lead to a 1.71003% increase in number of listed shares. Hence, while FDI has positive significant effect on number of listed shares, national security tend to run in opposite direction to number of listed shares.

Decision Rule: We reject the null hypothesis and accept the alternative that foreign direct investments dohave a significant effect on number of listed shares.

4.3.5Restatement ofHypothesis Five

Ho_5: Foreign direct investment has no significant effect on the All Share Index on the stock market of selected Sub-Saharan African countries.

H_{i5}: Foreign direct investment hassignificant effect on the All Share Index on the stock market of selected Sub-Saharan African countries.

TABLE 33: RESULT – ALL SHARE INDEX – PANEL EGLS TEST FOR MODEL 5

Dependent Variable: ASI				
Method: Panel EGLS (Period weights)				
Date: 07/23/17 Time: 22:27				
Sample (adjusted): 1986 2015				
Periods included: 30				
Cross-sections included: 3				
Total panel (balanced) observations: 90				
Linear estimation after one-step weighting matrix				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	57.08097	106.0179	0.538409	0.5917
FDIR(-2)	86.85486	41.69950	2.082875	0.0403
GDP(-2)	5.875002	14.80223	0.396900	0.6924
NS	371.6674	323.9556	1.147279	0.2545
ASI(-1)	1.029904	0.029345	35.09618	0.0000

Source: Author's Eviews Computation (See appendix 17 for details)

From table 33, FDIR(-2) at lag 2, has a t-statistic value of 2.08288 and a p-value of 0.0403, was found to have a positive effect on All share index and this effect is statistically significant at 5% level since its p-value is well below 0.05. Therefore, we reject null hypothesis to accept the alternative.

However, we observed that the GDP(-2) at lag 2, has a t-statistic value of 0.39690 and p-value of 0.6924while the impact of national security (NS) within the sub-region shows a t-statistic 1.14728 with a p-value of 0.2545 and these effects are statistically not significant at the 5% level, though GDP acts as a moderating variable in the model. The implication of this result is that a 1% rise in the level of FDIR will result to 86.86% increase in the All share index level. The coefficient of the past levels of FDIR has a positive sign and is significant at the 5% level.

Decision Rule: We reject the null hypothesis and accept the alternative that foreign direct investment has a positive and significant effect on All Share Index.

4.3.6 **Restatement ofHypothesis Six**

The Granger Caulity method was used to investigate the direction of influence between FDI and stock market development indicators.

Ho_6: Foreign direct investment has no causal effecton stock market development indicators of selected Sub-Saharan African countries.

H_{i6}: Foreign direct investment hascausaleffect on stock market development indicators of selected Sub-Saharan African countries.

TABLE 34 – RESULT FOR CAUSALITY EFFECT – MODEL 6

Pairwise Granger Causality Tests				
Date: 03/10/17 Time: 11:17				
Sample: 1984 2015				
Lags: 2				
Null Hypothesis:	Obs	F-Statistic	Prob.	Decision
FDIR does not Granger Cause MCR	90	1.84621	0.1641	Accept
MCR does not Granger Cause FDIR		0.09310	0.9112	Accept
FDIR does not Granger Cause ASI	90	0.12770	0.8803	Accept
ASI does not Granger Cause FDIR		0.83563	0.4371	Accept
FDIR does not Granger Cause NLS	90	0.31661	0.7295	Accept
NLS does not Granger Cause FDIR		1.42509	0.2462	Accept
FDIR does not Granger Cause VSTR	90	0.13667	0.8725	Accept
VSTR does not Granger Cause FDIR		0.31985	0.7271	Accept
FDIR does not Granger Cause TUNR	84	0.86218	0.4262	Accept
TUNR does not Granger Cause FDIR		0.99518	0.3742	Accept
NS does not Granger Cause FDIR	90	1.74537	0.1808	Accept
FDIR does not Granger Cause NS		0.52625	0.5927	Accept
NS does Granger Cause GDP	90	0.17490	0.0626	Accept
GDP does not Granger Cause NS		2.86253	0.8398	Accept

Author's Eviews computation

The result from table 34 showing Granger Causality of FDIR against stock market development indicators carried out at the 10% level of significance using a lag of 2 period reveals that FDIR and MCR for the panel pooled data, does not Granger Cause each other with F-statistics of 1.84621 and 0.0931 and p-values are 0.1641 and 0.9112 respectively above the 5% level of significance. This shows that though the relationship is positive, they are however not statistically significant.

Similarly, FDIR does not granger cause ASI nor does ASI granger cause FDIR as the F-statistic is positive at 0.12770 and 0.83563 with p-values of 0.8803 and .04371 respectively which are well above the chosen level of significance; hence, FDIR has a positive but insignificant influence on ASI and vice versa at the 5% significant level. Also, the table further shows that FDIR doesnot granger cause NLS neither does NLS granger cause FDIR at the 5% level of significance as the F-statistic are 0.31661 and 1.42509 with corresponding p-values of 0.7295 and 0.2462 respectively. Hence, the influence is statistically insignificant at the 5% level. Also, FDIR does not granger cause VSTR at the 5% level of significance. At a F-statistic of 0.13667 and 0.31985 respectively, the p-values are 0.8725 and 0.7271 respectively, which are well above the chosen significance level. Thus, the relationship is positive and statistically insignificant to exert a causal influence accordingly. Similarly, the FDIR does not granger cause TUNR at 5% level of significance as the F-statistic though positive at 0.86218 and 0.99518 respectively, their respective p-values are above the 5% chosen level of significance. Hence, the effect of FDIR on TUNR and vice versa is positive but statistically insignificant. The result also shows that NS (national security) does not granger cause FDIR as the p-value is not significant at

0.1808 while it granger causes GDP at a significant p-value of 0.0626 at the 5% level of significance.

Decision Rule: We accept null to reject alternative hypothesis that FDIR have no significant causal effect on stock market development indicators.

4.4.0. Discussion of Findings

This study examined the Effect of Foreign Direct Investments on Stock Market Development in Sub-Sahara Africa from 1984 to 2015 with a view to affirming or refuting the propositions of erudite scholarson the Effects of foreign direct investments and stock market developments using empirical evidence from selected Sub-Saharan Africa, namely-Nigeria, South Africa and Kenya. Following a detail theoretical review and empirical analyses, findings were made in line with the research questions as well as set and tested hypotheses. The study employed six models and used diagnosticstests namely – Unit root test, multicollinearity, Ramsey reset, Heteroskedasticity, Breseuch Godfrey serial correlation, Correlation and cointegration tests; regression tests, panel data analysis and causality testing techniques to test and analyse the data represented in table 6, 7 and 8; and the subsequent tests results in tables 9A to table 34. The findings are hereby discussed below in line with the objectives of this study.

Objective One

To examine the effect of foreign direct investments on the market capitalization ratio of the selected sub-saharan African countries.

The result of the panel data regression analysis revealed that foreign direct investment hasapositive and significant effect on Stock Market Capitalization in selected Sub-Saharan African countries. The study showed that past levels of foreign direct investment has a positive (t-statistic,2.06148) and significant effect (p-value of 0.0423) on market capitalization at the 5% level of significance. The coefficient of the past levels of FDIR has a positive sign (1.7048%) at the chosen level of significance. This implies that a 1% increase in past levels of FDIR will result to a 1.7048% rise in market capitalization given peaceful security climate.The result of this study is consistent with the findings of Zervos and Levine (1998), Oke (2012), Soumare and Tchana (2015) and World Bank (2015), who also found a positive and significant effect of FDI on market capitalization. This outcome also supports the theoretical foundation of Dunnings electic theoryand our apriori expectation of a positive and significant effect.A plausible direct interpretation of this result is that the governments' foreign direct investment policies in Sub-Saharan Africa have overtimebecome attractive to foreign investors provided appropriate security measures are put in place; otherwise, such policies will be repulsive to foreign investments.

It is also important to note that in the individual country analysis without the inclusion of national security variable, only Nigeria and South Africa showed significant negative effect of FDI on market capitalization while Kenya did not. The diagnostic and cointegration testings

revealed that the variables were stationery at first difference and there were evidence of cointegration.

Objective Two

To determine the effect of foreign direct investments on stock market turnover ratio of the selected Sub-Saharan African countries.

The result of the panel data analysis shows that foreign direct investment has a positive and significant effect on stock market turnover ratio in the selected sub-saharan African region. The study showed that pastlevels of foreign direct investment has a positive (t-statistic of 3.46098) and statistically significant effect (p-value of 0.0009) on stock market turnover ratio at the 5% level of significance. The coefficient of the past levels of FDIR has a positive sign (0.08104%) at the chosen level of significance. This result indicates that the coefficients of the past levels of FDIR has a positive sign and stimulatory effect on market turnover ratio (liquidity) at the 5% level of significance .This implies that a 1% increase in past levels of FDIR will result to a 0.08104% increase in stock market turnover ratio.The result of this study is corroborated by the findings of Yartey and Adjasi (2007), Otchere et al (2011), Soumare and Tchana (2015) and World Bank (2015), whose study found a positive and significant effect of FDI on stock market turnover (liquidity). The Dunnings Eclectic theory does support thisSub-Saharan African caseas well as our apriori expectation of a positive and significant effect. The impact of national security on stock market turnover is note worthy as it shows a a positive (t-statistics of 3.15045) and a significant (p-value = 0.0023) relationship to market turnover implying that a terror free

society is essential for a positive and significant effect of FDI on TUNR.A cascaded test of this objective on individual study country in the absence of national security (NS) variable reveal a negative and statistically insignificant effect of FDI on stock market turnover ratio (liquidity) in the sampled countries. Hence, the inclusion of NS in the panel analysis of this model is considered crucial for the existence of a positive and significant effect of FDI on TUNR. A reasonable direct interpretation of this result is that government foreign direct investment policiesin the Sub-Saharan African region aregrowth stimulating for the stock markets.

Objective Three

To assess the effect of foreign direct investments on value of stock traded ratio in the selected Sub-Saharan African Countries

The result of the panel data studies show that foreign direct investment has a positive and statistically significant effect on value of stock traded ratio in the selected sub-saharan African region. The study showed that present levels of foreign direct investment has a positive (t-statistic of 2.32039) and statistically significant effect (p-value of 0.0229) on value of stock traded ratio at the chosen5% level of significance. The coefficient of the future levels of FDIR has a positive sign (0.25494%) at the level of significance. This result indicates that the coefficients of the future levels of FDIR have a positive sign and impressive effect on value of stock traded ratio at the 5% level of significance.This implies that a 1% increase in future levels of FDIR will result to a 0.25494%rise in value of stock traded ratio.The result of this study is supportedbythe study ofOke (2012), Nyang'oro (2013), Soumare and Tchana (2015) and World

Bank (2015) whose studies found a positive and significant effect of FDI on value of stock traded. The Dunnings Eclectic theory holds good in thisSub-Saharan African case while the apriori expectation also agrees with the statistical positive significance of the study. This result must have enjoyed the support of peaceful secured economic climate within the region as NS shows positive and significant (t-statistic = 1.70415 and p-value = 0.0923) impact on VSTR. Surprisingly, a cascaded test of this objective on individual study area revealed a negative and statistically not significant effect of FDI on value of stock traded for individual country.

We will however adopt the panel data results above for our purpose. A conceiveable direct interpretation of this result is that government foreign direct investment policiesin the Sub-Saharan African region will stimulate stock traded value when appropriate security measures are provided; that irrespective of efforts to woo foreign investors, without appropriate market and economic stimulants such astax and transaction cost incentives, as well as adequate security, such measures would be counter-productive. This view is strongly supported by the conceptual background reviewed in this study.

Objective Four

To evaluate the effect of foreign direct investments on number of listed securities in the selected Sub-Saharan African countries

The result of the panel data regression studiesshow that foreign direct investment has a positive and significant effect on number of listed securities in selected Sub-Saharan Africa. The study showed that foreign direct investment has a positive (t-statistic of2.52032) and statistically

significant effect (p-value of 0.0139) on number of listed securities at the 5% level of significance. The coefficient of the future levels of FDIR has a positive sign (1.71003%) at the chosen level of significance. This implies that a 1% increase in FDIR will result to a 1.71003% increase in number of listed securities provided there exist a terror-free environment (with decreasing expenditure on NS, to yield a positively increasing outcome on number of listed shares due to their inverse relationship, t-statistic = -1.41530). The result of this study is consistent with the findings of Rajan and Zingales (2003), Alfaro et al (2004), Allen et al (2010) and Soumare and Tchana (2015), who also found a statistically significant positive effect of FDI on number of listed securities.ThisSub-Saharan African experience seems to support the theoretical foundation of Dunnings electic theory. The outcome of this study does agree with our Apriori expectation of a positive and significant relationship (World Bank, 2015).A probable direct interpretation of this result is that the efforts of governments in sourcingforeign direct investmentfor Sub-Saharan Africa countries are concentrated in a very few existing MNCs in the stock markets leading to stock concentration and government inability to break new grounds in attracting FDI spillovers. It is pertinent to mention that current depressive security expenditure has encouraged growth in the number of listed shares. The theoretical and conceptual studies hold that low level of listed securities in Sub-Saharan Africanaccounts for the sluggish growth and development of the stock markets.

It is also imperative to mention that in the individual country analysis, while only Nigeria and Kenya showed no significant effect of FDI on number of listed securities, South Africa

however,showed positive and significant effect of FDI on number of listed securities and carried a higher panel weighting than the earlier two countries.

Objective Five

To determine the effect of foreign direct investments on All Share Index of the selected Sub-saharan African countries.

The reviewed literatures indicate that All Share Index is fast becoming a development tracking indicator on stock markets of most sub-saharan African countries. The result of the panel data regression studies show that foreign direct investment has a positive and statistically significant effect on All share index in selected Sub-Saharan Africa. The study showed that past levels of foreign direct investment has a positive (t-statistic of2.08288) and statistically significant effect (p-value of 0.0403) on All share index at the 5% level of significance. The implication of this result is that a 1% rise in the level of FDIR will result to 86.8549% increase in the All share index level. The coefficient of the past levels of FDIR has a positive sign and is significant at the 5% level while the impact of national security appear not to be significant on all share index (p-value = 0.2545).The result of this study is consistent with the findings of Olweny and Kimani (2011), Echekoba, Ezu and Egbunike (2013), Popoola (2014) and Soumare and Tchana (2015), who also found a statistically significant and positiverelationship between GDP and ASI; while Gumus (2015) using Turkey as study area discovered a positive and significant effect of FDI on ASI. In the Sub-Saharan African region, the available study to the researcher's best knowledge on FDI effect on ASI was done by Asaolu and Ogunmuyiwa (2011) using Nigeria as a case study and discovered an insignificant relationship. This study however, extends

our knowledge with the expected sign for the Sub-Saharan African region and discovered positive and significant effect of FDI on ASI. This finding further lays credence to Dunnings electic theory and our apriori expectation of a positive and significant relationship (World Bank, 2015; Gumus, 2015; Soumare & Tchana, 2015). A plausible direct interpretation of this resultcould be attributable to the region's improving transparency international ratingsand thegovernment is encouraged to further pursue policiesofforeign direct investmentin Sub-Saharan Africancountries through international foreign media campaignto woo more foreign investors and develop regional global markets.

It is also imperative to mention that in the individual country analysis, while only Nigeria and Kenya showed no significant effect of FDI on All Share index, South Africa however, showed positive and significant effect of FDI on All Share index.

Objective Six

To assess the extent of causal effect of foreign direct investments on stock market development indicators of the sub-saharan African countries understudy.

The result of the granger causality of FDIR against stock market development indicators carried out at the 5% level of significance using a lag of 2 period reveals that FDIR and MCR for the panel pooled data, does not Granger Cause each other with F-statistics of 1.84621 and 0.0931 and p-values are 0.1641 and 0.9112 respectively above the 5% level of significance. This shows that though the relationship is positive, they are however not statistically significant. This result is consistent with the findings of Alfaro et al (2004), Dutta and Roy (2011), Aduda et al

(2013)and Karoyi (2004), who found non-causal relationship between FDI and stock market development indicators. This result however is not consistent with our Apriori expectation from such an investigation of a positive, significant and Bi-directional relationship between FDI and stock market development variables. (World Bank, 2015; Soumare & Tchana, 2015).

Similarly, FDIR does not granger cause ASI nor does ASI granger cause FDIR as the F-statistic is positive at 0.12770 and 0.83563 with p-values of 0.8803 and .04371 respectively which are well above the chosen level of significance; hence, FDIR has a positive but insignificant influence on ASI and vice versa at the 5% significant level. Also, the table further shows that FDIR does not granger cause NLS neither does NLS granger cause FDIR at the 5% level of significance as the F-statistic are 0.31661 and 1.42509 with corresponding p-values of 0.7295 and 0.2462 respectively. Hence, the influence is statistically insignificant at the 5% level. Also, FDIR does not granger cause VSTR at the 5% level of significance. At a F-statistic of 0.13667 and 0.31985 respectively, the p-values are 0.8725 and 0.7271 respectively, which are well above the chosen significance level. Thus, the relationship is positive and statistically insignificant to exert a causal influence accordingly. Similarly, the FDIR does not granger Cause TUNR at 5% level of significance as the F-statistic though positive at 0.86218 and 0.99518 respectively, their respective p-values are above the 5% chosen level of significance. Hence, the effect of FDIR on TUNR and vice versa is positive but statistically insignificant.

The result of the individual country however, shows a departure from above scenario as in Nigeria, showed a Bi-directional relationship between NLS-FDIR while for FDIR-MCR and TUNR-FDIR show a unidirectional causal effect. South Africa however did not show any Causal

effect between FDIR and stock market development indicators. Kenya showed a Bi-directional Causal effect between VSTR-FDIR while ASI-FDIR, TUNR-FDIR and FDIR-NLS all showed a Unidirectional causal effect.

The panel data analysis result on pairwise granger causality does not support the Dunnings FDI Electic theory. The implication of this panel result is that the Sub-Saharan African countries is yet to productively develop its stock markets and most FDI inflows into the region are mainly into MNCs that are not quoted on the stock exchange such as the telecommunications sector in Nigeria where the major operators are not quoted on the Nigeria stock exchange. Another implication of this result is that the inflows of FDIs are not being channeled to the productive and manufacturing sectors for the region's development.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

The findings from the specific objectives of this study are as follows:

1. That foreign direct investmenthadpositveand significant effectonmarket capitalization ratio of the selected Sub-Saharan African countries.
2. That foreign direct investment hadpositiveand significant effectonstock market turnover ratio of the selected Sub-Saharan African countries.
3. That foreign direct investment had positive andsignificant effecton value of stock traded ratio in the selected Sub-Saharan African countries.
4. That foreign direct investment had positiveand significant effecton number of listed securities of the selected Sub-Saharan African countries.
5. That foreign direct investment hadpositive and significant effecton the All Share Index of the selected Sub-Saharan African countries.
6. That foreign direct investment had no causal effect on stock market development indicatorsof the selected Sub-Saharan African countries.

5.2 Conclusion

This research work studied the effect of foreign direct investment on stock market development in selected Sub-Saharan African countries following largely from the work as postulated by Dunnings and Efficient Market Hypothesis. They largely held that the stock market benefits and develops from foreign direct investment inflows, which constituted the focus of this

work. Arguments in favour of the foreign direct investments and stock market development and contradictions to the postulations were reviewed from theoretical and empirical literature. Even lines of argument which suggests that stock market developments depends on direction, availability and volume of foreign direct investments within the Sub-Saharan African countries understudy, were also reviewed. Empirical analysis unbundled stock market development indicators into Market capitalization, market turnover ratio, number of listed shares, value of stock traded and all share index in measuring the effect. The apparent volatility in the global stock market over the years undoubtably cast doubt on the reality of the theoretical basis of the study.

The need to domesticate the study of this nature to our Sub-Saharan African region,contribute to current literature on subject, validate other scholars view point, introduce other variable such as All share index, which to the best of researcher's knowledge had not been includedon a Sub-Saharan African scale as well as introduce a dummy variable such as National security in view of recent security challenges in the region; use a more dynamic and robust analytical tool that captured the panel and time series nature of the data involved motivated this study.

It was against the foregoing that the study chose a broad objective of examining the Effect of foreign direct investment on stock market development with evidence from selected Sub-Saharan African countries focusing on three major economies namely – Nigeria, South Africa and Kenya. This work further incorporated the impact of national security challenges in panel studies for the selected sample countries on foreign direct investment inflow into the

region and its subsequent impact on stock market development within the sub-region. It was observed that this dramatically put the results of this investigation in proper perspective.

The results emanating from our study proved that foreign direct investment haspositively significant effect on stock market development. A long-run negative significant effect was also established and documented appropriately.In conclusion, based on the outcome of our Study, we affirmthat foreign direct investments has significant positive effect on stock market development in Sub-Saharan African countries in the short-run and significant negative effect in the long-run equilibrium periods.

5.3 Recommendations

In line with the objectives of this study, we summarise our recommendations as follows:

1. The governments should create foreign direct investments enabling environments within the sub-saharan African region to attract foreign investors and capital inflows.These will include the provision of tax incentives, ease of doing business, provision of excellent (conducive) security arrangements and improved regulatory environment. This will allow the region and respective countries to maximize the gains of the spillover effects of foreign direct investments thereby leading to increased market capitalization.
2. The governments should encourage compulsory listing of all local MNC/MNE (FDI benefiting institutions) to improve stock market indicators such as Market liquidity, All Share Index and Market capitalization.

3. The regulatory authorities should improve on the listing requirements to attract more and new FDIs to the stock market. This will be evidenced by an increase in the number of listed shares.
4. The regulatory authorities are advised to adopt market friendly regulations especially investor protection and better governance regulations to promote the development of the stock market.
5. The various governments through their ministry of trade and investments is concouraged to create financial market awareness activities to expose the benefits of the Sub-saharan African economic environments in the international markets and launder its image to both local and foreign investors alike. This will help improve the volume of FDI sourced into the region as well as the number of listed securities and market liquidity in the Sub-saharan Africa stock markets.
6. The respective governments of the Sub-Saharan African Countries should be encouraged to consolidate their market strengthening and deepening efforts through the establishment of regional global stock market that is electronically linked to all stock markets in the Sub-region. This will facilitate speedy developments of the stock markets; encourage the development of single regional trading currency; improved ease of liquidity flow between the various markets within the region; encourage improved transparent corporate governance and greater foreign investor participation. This will enable capital inflows into the financial systems to be channelled appropriately towards the development of relevant market fundamentals.

5.3.1 Contributions to Knowledge

The study empirically proves that foreign direct investment has significant effect on stock market development in the selected Sub-Saharan Africa Countries which validates the objective of this study.

1. This work contributes to current literature on subject by extending number of years used by other scholars from 20 years to 32 years (1984 – 2015).
2. This work further validates the findings of some Erudite researchers such as Lamouchi and Zouari (2013), World Bank (2014), Adaramola and Obisesan (2015), and Soumare and Tchana (2015)that FDI significantly affects SMD variables positively namely Market capitalization, Market turnover ratio, value of stock traded ratio and number of listed shares.
3. Most reviewed literature employed a combination of market capitalization, market turnover ratio, value of stock traded or number of listed shares. This work employed all four variables to measure stock market development as provided by World Bank (2015) and in addition used All share index (ASI), which showed a positive and significant FDI effect and to the best of the researcher's knowledge no Sub-Saharan African studies have tested for this effect on this scale. This work thus provides an empirical basis for the adoption of ASI as a measurement criterion for stock market development in the Sub-Saharan African hemisphere.
4. This work incorporated the influence of national security challenges (NS) in attracting FDI into the Sub-Saharan African stock market, not used by previous scholars in this

field of study to the best knowledge of the researcher(s). This assisted in putting the findings of this study in proper perspective.

5.3.2 Recommendations for Further Studies

As this work does not claim to be exhaustive, this study recommends the following for further studies:

1. The Effect of Foreign Portfolio Investments on Stock Market Development using Autoregressive Distributed lag model (ARDL)
2. Secondly, this research work recommends for further studies the use of Generalized Autoregressive Conditional Heteroscedasticity Model (GARCH) to study Effect of Foreign Direct Investments on Stock Market Development occasioned by volatility in stock prices return due to information asymmetry.

REFERENCES

Adam, A. M. & Tweneboah, G. (2008). Foreign direct investment and stock market development: Ghana's evidence.*International Research Journal of Finance and Economics,* 26 (4), 178-185.

Adaramola, A. O. & Obisesan, O. G. (2015). Impact of foreign direct investment on Nigerian capital market development.*International Journal of Academic Research in Accounting, Finance and Management Science,* 5(1), 103-108.

Adenuga, A. O. (2011). Stock market development and economic growth in Nigeria: a vector error-correction approach. *West African Journal of Monetary and Economic Integration*, 11(1), 95-124.

Adeyeye, P. O., Ayodele, S. O. & Akinuli, B. O. (2016). Impact of security expenditure on foreign direct investment in Nigeria. *International Journal of Accounting, Finance and Risk Management,* 1(1), 33-38. Doi: 10.11648/j.ijafrm.20160101.15.

Adigwe, P.K., Nwanna, I.O. & Amala, A. (2015). Stock market development and economic growth in Nigeria: An empirical examination (1985 – 2014). *Journal of Policies and Development Studies,* 9(5), 134-154.

Adrino, M. (2012). The effect of foreign direct investment on economic growth: evidence from South Africa. An unpublished thesis submitted to the *University of Pretoria, South Africa.*

Aduda, J., Masila, J. M. & Onsongo, E. N. (2012). The determinants of stock market development: the case for the Nairobi stock exchange. *International Journal of Humanities and Social Science* 2(9), 214-230.

African Development Bank Group (2014a). Open Data for Africa. FDI inflows by country – Sub-Saharan Africa. Retrieved from *http://opendataforafrica.org/dqcelid/afdb-socio-economic*-database-jan- 2017.

African Economic Outlook (2005/2006). Published by the *OECD Development Centre and the African Development Bank,* with financial support from the European Commission

Agarwal, J. P. (1980). Determinants of foreign direct investment. *Weltwirtschaftliches Archiv*, 4(116), 739-773.

Agiomirgiannakis, G., Voulgaris, F. & Papadogonas, T. (2006). Financial factors affecting profitability and employment growth: the case of Greek manufacturing.*Int. J. Financial Services Management,* 1(2/3), 232–242.

Ajayi, A.I (2006). Accelerating Africa's development five years into the twenty-first century. A Paper presented at the *ADB/AERC International Conference, Tunis,* Tunisia November 22-24, 2006.

Akinlo, A.E. (2004). Foreign direct investment and growth in Nigeria: An empirical investigation. *Journal of Policy Modelling,* 26(1), 627-639.

Akpan, I.T. & Chukwudum, Q. (2014). Impact of interest rates on stock prices: An analysis of the all share index.*International Journal of Finance and Accounting,* 2014, 3(2), 96-101. Doi: 10.5923/j-ijfa.20140302.06

Al Nasser, O. M. & Soydemir, G. (2010). Domestic and international determinants of foreign direct investment in latin America.*FMA Annual Meeting,* New York, USA.

Alajekwu, U. B. & Achugbu, A. A. (2012). The role of stock market development on economic growth in Nigeria: A time series analysis. *African Research Review, 6* (1), 51-70.

Alfaro, L., Chanda, A., Kalemli-Ozcan, S. & Sayek, S. (2004). FDI and economic growth: the role of local financial markets.*Journal of International Economics*, 64(1), 89-112.

Alfaro, L., Chanda, A., Kalemli-Ozcan, S. & Sayek, S. (2006).How does foreign direct investment promote economic growth? Exploring the effects of financial markets on linkages.*NBER Working Paper no. 12522*, National Bureau of Economic Research, Cambridge, MA.

Ali, U. A., Adam, A., Zunaidah, S. & Abdullahi, A. T. (2015). Causal relationship between stock market returns and macroeconomic variables in Nigeria.*IOSR Journal of Humanities And Social Science (IOSR-JHSS)* 20(5), 74-96.

Ali, A.M. & Isse, H. S. (2002). Determinants of economic corruption: a cross-country comparison.*Cato J.* , 22(2) , 449.

Allen, F., Otchere, I.& Senbet, L. W. (2010). African financial systems. A review.*Nomura Institute of Capital Markets Research.*

Anjum, A. & Nishat, M. (1998). The determinants of foreign direct investment in Pakistan.*The Pakistan Development Review,* 43(4),651–664.

Anokye, M. A. &George, T. (2008).Macroeconomic factors and stock market movement: Evidence from Ghana.*Munich Personal RePEc Archive*

Anyanwu, J.C.(1998). *An econometric investigation of determinants of foreigndirect investments.* Enugu, Nigeria, 1998.

Apergis, N., Lyroudi, K.& Vamvakidis, T. (2006). The Relationship between Foreign Direct Investment and Economic Growth: Evidence from Transitional Countries. [Online] Available: Retrieved from *http://ssrn.com/abstract=990251*.

Ariyo, A. (1998). Investment and Nigeria's economic growth.Investment in the growthprocess. *Proceedings of Nigerian Economic Society Annual Conference,*Ibadan, Nigeria.1998, 389-415,

Árvai, I.& Heenan, G. (2008). A framework for developing secondary markets for government securities. *IMF Working Paper* 08/174.

Asaolu, T. & Ogunmuyiwa, M. (2011). An econometric analysis of the impact of macroeconomic variables on stock market movement in Nigeria. *Asian Journal of Business Management*, 3(1), 72-78.

Asiedu, E. (2001). The determinants of foreign direct investment in developing countries: is Africa different?*World Development*, 30 (1), 107 – 119.

Asiedu, E. (2003).Capital controls and foreign direct investment. *World Development*, 32 (3), 479 – 490

Ayadi, F.S. (2007). Foreign direct investment. Available at http*://www.allbusiness.com. Retrieved 1 9/3/2016*

Ayanwale, A. B. (2007). FDI and economic growth, evidence from Nigeria. AERC Research Paper 165, *African Economic Research Consortium, Nairobi*.

Ayanwale, A. B. & Bamire, A. S. (2001). The influence of foreign direct investment on firm level productivity of Nigeria's Agro/Agro-allied sector. Final Report Presented to the *African Economic Research Consortium, Nairobi*, Kenya

Bakshi, G. S. & Chen, Z. (1996). Inflation, asset prices, and the term structure of interest rates in monetary economics.*Review of Financial Studies*, 9(1), 241-275.

Bandera, V.N. & White, J.T. (1988). U.S. direct investments and domestic markets in Europe. *Economia Internazionale*, 21(1), 117-133.

Barbour, P. (2005). An assessment of South Africa's investment Incentive regime with a focus on the manufacturing sector.*ESAU working paper* 14 London: *Economics and Statistics Analysis Unit, Overseas development Institute.*

Bariviera, A. F. (2011).The influence of liquidity on informational efficiency: the case of the Thai stock market physica A. *Statistical Mechanics and its Applications*. 390(1),4426-4432.

Barrell, R. & Pain, N. (1997). Foreign direct investment, technological change and economic growth within Europe.*The Economic Journal*107(1), 1770-1786.

Barrell, R. & Pain, N. (1998). Real exchange rates, agglomerations, and irreversibilities: macroeconomic policy and FDI in EMU.*Oxford Review of Economic Policy*, 14(3), 152-167.

Becker, G.S. & Barro, R. J. (1988). A reformulation of the economic theory of fertility. *Quarterly Journal of Economics*103(50), 1-25.

Bekaert, G., Harvey, C.R. & Lundblad, C. (2004a). Growth volatility and financial liberalization.*Unpublished working paper, Duke University*, Durham, North Carolina.

Bekaert, G., Harvey, C.R., Lundblad, C. & Siegel, S. (2004b). Growth opportunities and market integration. *Unpublished working paper, Columbia University*, New York.

Bende-Nabende, A. (2002*).* Foreign direct investment determinants in Sub-Saharan Africa: A Co-integration Analysis.*Economics Bulletin*, 6(4), 1-19.

Benjamin G. (2012). *The Intelligent Investor; the definitive book on value investing*. Harper Business Essential, London.

Besim C., Eldin, M. & Emir, A. (2000). *Foreign direct investment location and institutional development in the manufacturing sector in South East European Countries.*

Bhasin, A., Jun, K.& Economou, P. (1994). Assessing the sustainability of foreign direct investment flows in Walsh, J.P. and Yu, J. (2010). Determinants of foreign direct investment: A sectoral and institutional approach. *IMF Working Paper WP/10/187 Asian Pacific Department.*

Bhasin, A., Jun, K. & Economou, P. (1994) Assessing the sustainability of foreign direct investment flows.*World Bank, International Economics Department*

Black, A. & Mitchell, S. (2002). Policy in the South African motor industry goals, incentives and outcomes.*South African Journal of economics*, 70(8), 1273-1297.

Black, F.& Myron S. (1973). The pricing of options and corporate liabilities.*The Journal of Political Economy*, 81(3), 637-654.

Blackburn, K., Bose, N.& Capasso, S. (2005).Financial development, financing choice and economic growth: *Review of Development Economics*, 9(2), 135-149.

Blomström, M. & Kokko, A. (2003). The economics of foreign direct investment incentives.Working paper 168, *Bundesbank-Conference*, Stockholm, Sweden.

Bora, K., Muslumov, A. & Güler, A. (2002). Evolving market efficiency in Istanbul stock exchange.*METU International Conference in Economics* VI, Ankara, Turkey.

Borensztein, E., De Gregorio, J. & Lee, J.W. (1998). How Foreign Direct Investment Affect Economic Growth? *Journal of International Economics*, 45(1), 115–135.

Box, G. E. P.& Jenkins, G. M. (1990), *Time Series Analyses, Forecasting and Control*. (Holden Day) San Francisca CA.

Boyd, J. H. & Prescott, E. C. (1986). Financial intermediary-coalitions. *Journal of Economics Theory* 38(2), 211–232.

Boyd, J. H., Levine, R. & Smith, B. D. (2001). The impact of inflation on financial sector performance. *Journal of Monetary Economics*, 47(2), 221–48.

Braunerhjelm, P. & Svensson, R. (1998). *"Agglomeration in the geographical location of Swedish MNFs" in P*. Braunerhjelmand K. Ekholm (eds), The geography of multinational firms, Kluwer Academic Publishers

Breusch, T. & Pagan, A (1979). A simple test for heteroscedasticity and random coefficient variation.*Econometrica*.47(1), 1287-1294

Brooks, C. (2014). *Introductory Econometrics for Finance.* (New York) Cambridge University Press 3rd Edition.

Burda, M. & Wyploszy, C. (2001). *Macroeconomica European Text (3e).* New York, Oxford University press Inc.

Carkovic, M. & Levine, R. (2005).Does FDI accelerate economic growth? In T.H. Moran, E.M.Graham, & M.Blomström, Does Foreign Direct Investment Promote Growth?. Washington DC: *Institute for International Economics*, 25(1), 195-220.

Carkovic, M. & Ross, L. (2002). Doesforeign direct investment accelerate economic growth?*University of Minnesota Department of Finance Working Paper*.

Carlton, D. W. (1983). The location and employment choices of new firms: An econometric model with discrete and continuous endogenous variables.*Review of Economics and Statistics* 65(1), 440-449.

Carvajal, A.&Elliott, J. (2007). Strengths and weaknesses in securities market regulation: Aglobal analysis.*IMF Working Paper* 07/259.

Catalan, M., Impavido, G. &Alberto, R.M. (2000).Contractual savings on stock markets development: Which leads?.*Policy Research Working Paper* 2421, World Bank, Policy Research Department.

Caves, R. E. (1996). *Multinational Enterprise and Economic Analysis. 2nd Edn.,* Cambridge University Press, Cambridge, ISBN-10: 0521478588, pp: 322.

Central Bank of Nigeria (2013). Economic and Business Reviews. *Statistical Bullettin* 1(24), 1-62. No.4.

Chami, R., Fullenkamp, C., Sharma, S. (2009).A Framework for Financial Market Development. *IMFWorking Paper* 09/156.

Chauhan, S. (2013). Impact of foreign capital inflows on Indian stock market. TRANS Asian *Journal of Marketing and Management Research,* 2(3-4), 79-90.

Chan, S.S. & Todaro, M.P. (2006). *Economic Development.* Elangga, 2006

Cheng, L. K. & Zhao, H. (1995*).* Geographical patterns of foreign direct investment in china: location, factor endowments, and policy incentives*.Department of Economics, Hong-Kong University of Science and Technology,* February.

Cheng, L. K.& Kwan, Y. K. (1999). *FDI Stock and its Determinants. In: Wu, Y. (Ed.), Foreign Direct Investment and Economic Growth in China,* Chapter 3. Edward Elgar, Cheltenham, pp. 42-56

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

Choe, J. (2003). Do foreign direct investment and gross domestic investment promote economic growth? *Review of Development Economics.* 7, 44-57.

Claessens, S., Klingebiel, D.&Schmukler, S.L. (2006).Stock market development and internationalization: Do economic fundamentals spur both similarly *Journal ofEmpiricalFinance*, 13(3), 316–50.

Claessens, S., Klingebiel, D. &Schmukler, S.L. (2003). Government bonds in domestic andforeigncurrency: The role of macroeconomic and institutional factors.Centre forEconomic PolicyResearch, London, *CEPR Discussion Paper* No. 3789.

Claessens, S.,Klingebiel, D. & Schmukler, S. L. (2001).FDI and stock market development: complements or substitutes?.*Mimeo*; Retrieved from: www.iadb.org/res/publications

Claessens, S., Klingebiel, D. & Lubrano, M. (2007).Corporate governance reform issues in the Brazilian equity markets. *International Research Journal of Finance and Economics*,8(3),245-276.

Cleeve, E. (2009). The eclectic paradigm and foreign direct investment in Sub-Saharan Africa.*IAABD* 2006 Conference Proceeding.

Cohen, L., Manion, L.& Morrison, K. (2000). *Research methods in Education,* London: Routledge Falmer.

Cosh, H. & Singh, H. (1992). *Foreign direct investment in developing countries and growth.* (3ed.) Cambridge, London

Culahovic, B.(2000) FDI, fiscal incentives and the role of development policy" Foreign direct investment in South East Europe: Implementing best policy practices. *OECD Conference,* 2000.

Dailami, M., & Aktin, M. (1990). Stock markets in developing countries: key issues and a research agenda. *Policy Research and External Affairs Working Papers* Series, No. 515. Financial Policy Systems, the World Bank.

David, P., Barri, M. & Ofei, k. (2014). Overview of foreign direct investment in Africa. *King and Wood Mallesons partners*, London.*http:www.kwm.com/knowledge/insight*.

De Mello, L.R. (1999). Foreign direct investment-led growth: Evidence from time series and panel data.*Oxford Economic Papers*, 51(1), 133-151.

De Mello, R. L. (1997). Foreign direct investment in developing countries and growth: A selective survey.*Journal of Development Studies*, 34(1),1-34.

De Menil, G. (1999). Real capital market integration in the EU: How far has it gone? What will the effect of the euro be?*Economic Policy,*Development New York: United Nations.28(1),165-189.

Desai, M. A., Foley, C. F. & Hines Jr., J. R. (2006). Capital controls, liberalizations, and foreign direct investment. *The Review of Financial Studies*, 19(1), 1434-1464.

Dickie, R. & Layman, T. (1988). *Foreign Investment and Government Policy in the Third World.* New York: St Martin's Press.

Domar, E., (1947). The problem of capital acccumulation. *American Economic Review* 37(1),34- 35.

Drakos, K. (2004). Terrorism-induced structural shifts in financial risk: airline stocks in the aftermath of the September 11th terror attacks. *European Journal of Political Economy, 20, 349-366.*

Dunning, J. & Rugman, A. (1985). The influence of hymer's dissertation on the theory of foreign direct investment. *American Economic Review* 75, (2):228-232.

Dunning, J. H. (1994*).* Re-evaluating the benefits of Foreign Direct Investment. *Transnational corporations.*3(1), 23-51.

Dunning, J. & Rugman, A. (1985). The influence of hymer's dissertation on the theory of foreign direct investment. *American Economic Review* 75(2), 228-232.

Dunning, J. H. (1973). The determinants of international production.*Oxford Economic Papers* 25(7), 36-48.

Dunning, J. H. (1980). Toward an eclectic theory of international production: Some empirical tests. In *Journal of International Business Studies* 11(8), 112-121.

Dunning, J. H. (1988). The eclectic paradigm of international production:a restatement and some possible extensions. *Journal of International Business Studies,*19 (2), 50-84.

Durbin, J. (1960). Estimation of parameters in time series regression models. *Journal of the Royal Statistical Society*, 22(1) 139-159 Economic Research Consortium Paper 165. Nairobi.

Dutta, N. & Roy, S. (2011). Foreign direct investment, financial development and political risks. *The Journal of Developing Areas*, 44 (2), 303-327.

Edozien, E. C. (1968). Linkages, direct foreign investment and Nigeria's economic development. *Nigeria Journal of Economic and Social Studies*; 10(2), 191-203.

El-Wassal, K.A. (2005).Understanding the growth in emerging stock markets.*Journal ofEmerging Market Finance*, 4(3), 227–261.

El-Wassal, K.A. (2013).The development of stock markets: in search of a theory. *International Journal of Economics and Financial Issues*,3(3), 606-624.

Elie, N. (2015). Financial development and economic growth in Sub-Saharan Africa: A dynamic panel data analysis. *European Journal of Sustainable Development*, 4(2), 369-378.

Enders, W. (2004*). Applied Econometric Time Series*. 2nd ed. New York:

Engle, R. F. & Victor, K. N. (1993). Measuring and testing the impact on volatility. *The Journal of Finance*, 48(5), 1749-1778.

Eniekezimene, A. F. (2013). The impact of foreign portfolio investment on capital market growth evidence from Nigeria.*Global Business and Economics Research Journal* ISSN: 2302-4593, 2 (8): 13 – 30

Errunza, V. R. (1983). Emerging markets - A new opportunity for improving global portfolio performance.*Financial Analysts Journal*, 39 (5), 51-58.

Errunza, V. (2001). Foreign portfolio equity investments, financial liberalization, and economicdevelopment. *Review of International Economics*, 9, 703-726.

Fabayo, J. A. (2003).Foreign direct investment and manufacturing industries in Nigeria: Performance, Prospects and Problems. As cited in Nnanna, O.J.; Okafor, C.M. and Odoko, F.O. (eds.): Foreign Private Investment in Nigeria; Proceedings of the *12th Annual Conference of the Regional Research Units*, Central Bank of Nigeria.

Falki, N. (2009). Impact of foreign direct investment on economic growth in Pakistan. *Int. Rev. Bus. Res. Papers*, 5(1), 110-120.

Fama, E. (1965a). The behavior of stock market prices. *Journal of Business* 38(1), 34–105.

Fama, E. (1965b). Random walks in stock market prices. *Financial Analysts Journal* 21(3), 55–59.

Fama, E. F. & French, K. R. (1992). The cross-section of expected stock returns. *Journal of Finance* 47(2), 427–65.

Fama, E. F. & French, K. R. (1998). Value versus growth: The international evidence.*Journal of Finance* 53(1), 1975–99.

Fedderke, J.W. & Romm, A. T. (2004). Growth impact and determinants of foreign direct investment into South Africa.*University of Cape Town.Working Paper*: 12.

Findlay, R. (1978). Relative backwardness, direct foreign investment and the transfer of technology: A simple dynamic model. *QuarterlyJournal of Econ*., 92(1), 1-16.

Firth, M. (1979). The relationship between stock returns and rate. *Journal of Economics Letters.* 6(3), 255-259.

Fisher, I. (1930). *The Theory of Interest Rate*. New York: Macmillian

Fuller, W. A. (1976). *Introduction to statistical.* Time series, New York: Wiley

Funke, N. & Nsouli, S. M. (2003). The New partnership for Africa's development (NEPAD): opportunities and challenges. IMF, Washington, DC. *IMF Working papers*NO 03/69.

Glen, J. (1994). An introduction to the microstructure of emerging markets.*International FinanceCorporation Discussion Paper* No.2.

Granger, C.W.J. (1981). Some properties of time series date and their use in econometric model specification. *Journal of Econometrics,* 16(1),121-130

Greenwood, J.& Smith, B. (1996). Financial markets in development and the development of financial markets. *Journal of Economic Dynamics and Control*, 21(1), 145-181

Gudaro, A. M., Chhapra, I. U. & Sheikh, S. A. (2010). Impact of foreign direct investment on economic growth: A case study of Pakistan.*Journal of Management and Social Sci*., 6(2), 22-30.

Gujarati, N. D. & Porter, D. C. (2009). *Basic Econometrics.* (Bolton) McGraw Fifth Edition

Gultekin, N. B. (1983). Stock market returns and inflation: Evidence from other countries. *Journal of Finance* 38(1), 49-65.

Gumus, G.K. (2015). The relationship between investment and macroeconomic indicators: Evidence from Turkey. *European Scientific Journal,* November 2015 (ed.), 11(31), 131-145.

Guntlach, E. (1995). The role of human capital in economic growth: New results and alternative interpretations. *Weltwirtschaftliches Archiv*, 131(1), 383-402.

Hailu, Z. A. (2010). Demand side factors affecting the inflow of foreign direct investment to African countries: Does capital market matter? *International Journal of Business and Management*, 5(5) 20-39.

Halvorsen, R. (1995). *Fiscal incentives for investment in Thailand.* In Shah, A (Ed) Fiscal incentives for investment and innovation, New York, Oxford University Press.

Harris, R. (1995).*Using co integration analysis in econometric modelling.* London*:* Prentice Hall.

Harrord, R. (1939). An essay in dynamic theory. *Economic Journal 3(1),* 14-33.

Hassett, K. A. & Hubbard, R. G. (2002). Tax policy and business investment. In *Handbook of Public Economics,* Vol. III, eds. Alan J. Auerbach and Martin Feldstein, 1293-1343. Amsterdam: North-Holland.

Hau, H. & Rey, H. (2006). Exchange rates, equity prices, and capital flows.*Review of Financial Studies* 19(1),273–317.

Head, C. K., Ries, J. C. & Swenson, D. L (1996). Inter-city competition for foreign investment: Static and dynamic effects of China's incentive areas. *Journal of Urban Economics*, 40 (1), 38- 60.

Head, C. K., Ries, J. C. & Swenson, D. L. (1995). Agglomeration benefits and locational choice: Evidence from Japanese manufacturing investments in the United States.*Journal of International Economics*, 10(1), 92-116.

Henry, P. B. (2000).Do stock market liberalizations cause investment booms? *Journal of Financial Economics,* 50(2), 301-334.

Hermes, N. & Lensink, R. (2003). Foreign direct investment, financial development and economic growth.*The Journal of Development Studies,* 40(3), 142-163.

Herzer, D., Klasen, S. & Nowak-Lehmann, D. F. (2008). In search of FDI-led growth in developing countries: The way forward.*Econo. Modelling*, 25(1) 793-810. Doi: 10.1016/j.econmod.2007.11.005.

Hill, C., George, J. & Williams, G. (2001). *Undergraduate Econometrics*. (New York) John Wiley and Sons

Hong Kong Special Administrative Region, Census and Statistics Department, (2001). External direct investment statistics of Hong Kong.(*Hong Kong SAR).*

Hubbard, G. (1997). Capital market imperfections and investment.*Journal of Economic Literature* 36(1), 193–225.

Hymer, S. H. (1976).The international operations of national firms: A study of direct foreign investment, *MIT monographs in Economics;* 14, MIT Press, Cambridge, Mass.

Hymer, S. (1976). The international operations of nation firms: a study of foreign direct investment (1960 dissertation). *Cambridge*, MLT Press.

Ifionu, E.P. & Omojefe, G.O. (2013). The capital market and performance of the Nigerian economy: A time series analysis. *West African Journal of industrial and Academic Research,* 8(1),130-142.

International Monetary Fund, (2003a). & Organisation for Economic Co-operation and Development (2003b). Foreign Direct Investment Statistics: How Countries Measure. FDI (Washington: *International Monetary Fund*).

International Monetary Fund, (2003a). International financial statistics, October 2003 issue (Washington) Unravelling the Developmental Impact of Foreign Direct Investment in Sub- Saharan Africa. *IZA Working Paper* No. 3296.

International Monetary Fund (2003). Growth and Institutions. *World Economic Outlook*, Washington: IMF.

Issouf, S. & Fulbart, T. T. (2015). Causality between fdi and financial market development: Evidence from emerging markets.*World Bank Economic Review-Oxford Journal*.

Jarque, M. & Bera, A. K. (1980). Efficient tests for normality, homoscedastisity and serial independence of regression residuals in inflation.*The journal of Finance, XXXIV (3).*

Jegadeesh, N. & Titman, S. (1993). Returns to buying winners and selling losers: Implications for stock market efficiency. DOI: 10.1111/j.1540-6261.1993.tb04702.x

Jeon, Y. D. (1992*)*. The determinants of Korean foreign direct investment in manufacturing industries.*Weltwirtschaftliches Archv*, 128(1), 527-541.

Johansen, S. & Juselius, K. (1990). Maximum likelihood estimation and inference from cointegration – with applications to the demand for money. *Oxford Bulletin of Economics and Statistics* 52(3), 169-210.

Johansen, S. (1988). Statistical analysis of cointegration vectors. *Journal of Economic Dynamics and Control* 12(1), 231-254.

Johansen, S. (1991). Estimation and hypothesis testing of cointegration vectors in Gaussian vector autoregressive models. *Econometrica* 59(1), 1151-1580.

Johansen, S. (1995). *Likelihood-based Inference in Cointegrated Vector Autoregressive Models.* Oxford University Press: Oxford.

Jones, C. I. (1998). Introduction to economic growth. London: W.W. Norton and Company Ltd; London.*Journal of Economic and sustainable Development*5(3), 34-39.

Kaleem, R. & Shahbaz, M. (2009). Impact of foreign direct investment on stock market development: The case of Pakistan.*9th Global Conference on Business and Economics,* Cambridge University, UK.

Karim, N. A. (2009). Foreign direct investment: Key to poverty reduction in Malaysia. *The IUP Journal of Applied Economics,*8(5), 55-64.

Katie, R. E. (2014). *Non experimental research designs and survey rese*arch. Retrieved from Online source 06-11-14.

Kenny, C. & Moss, T. (1998). Stock markets in Africa: Emerging lions or white elephants?*World Development*, 26(5), 829-843.

Kenya *Investment Authority* (2004). A yearly publication of the Kenya Investment Council.

Kenyan *Institute of Economic Affairs* (2012). Annual Pulication, Kenya.

Kerlinger, F. N. & Rint, N. (1986). *Foundations of Behaviour Researc*h. London: Winston Inc.

Khan, M. S. (1986). Islamic interest-free banking: A theoretical analysis.*IMF Staff Papers*, 33(1), 1-27.

Kholdy, S. & Sohrabian, A. (2005). Financial markets, FDI, and economic growth: Granger causality test in panel data models.*Working Paper, California State Polytechnic University*.

Kholdy, S. & Sohrabian, A. (2008). Foreign direct investment, financial markets and political corruption. *Journal of Economic Studies*, 35 (6), 486-500.

Kim, Y. H. & Jimmy, Y. J. (2004). What makes circuit breakers attractive to financial markets: A survey.*Financial Markets, Institutions, and Instruments* 13(3), 109–146.

Kim, Y. H., Jose, Y. & Jimmy, Y. J. (2008). Relative performance of trading halts and price limits: Evidence from the Spanish stock exchange.*International Review of Economics and Finance* 17(1), 197–215.

Kinyanjui, S. (2014). The impact of terrorism on foreign direct investment in Kenya. *International Journal of Business Administration,* 5(3), 148-157. Doi: 10.5430/ijba.v5n3p148

Klemm, A. (2008). Effective average tax rates for permanent investment. *IMF working Paper* No. 08/56.

Kohli, R. (2003). Capital flows and domestic financial sector in India. *Economic and Political Weekly*, 22(2), 761-767.

Kojima, K. & Osawa, T. (1984). Micro and macro-economic models of foreign direct investment. *Hitosubashi Journal of Economics*, 22(4), 24-39.

Kojima, K. (1982). Macro-economic versus international business approaches to foreign direct investment. *Hotosubashi Journal of Economics* 23(1), 19-38.

Koutsoyannis, A. (1977). *Theory of Econometrics*. (New York) Palgrave 2nd Edition

Kransdorff, M. (2010). Tax incentives and foreign direct investment in South Africa, Consilience. *The Journal of sustainable development.* 3(1), 68-84.

Kumar, N. (2002). *Globalization and the quality of foreign direct investment. Oxford:* Oxford Press.

Kyaw, S. (2003*).* FDI in developing countries in the globalized world. Paper Presented at the *DSA Conference*. University of Strathclyde, Glasgow.

Lamouchi, A. & Zouari, E. (2013). Financial development and capital inflows: The effect on the real exchange rate. *Global Journal of Management and Business Research Finance*, 13(3), 30-42.

Lee, H. (1993).Seasonal cointegration: Japanese Consumption Function.*Econometrica,* 55(1),275-298.

Lehman, E. L. (1959) *Testing Statistical Hypotheses*. (New York) John Wiley and Sons

Levine, R. & Zervos, S. (1998). Stock market, banks and economic growth.*American Economic Review,* 88(1), 537-558.

Levine, R., Loayza, N. & Beck, T. (2000). Financial intermediation and growth: Causality and causes.*Journalof Monetary Economics*, 46(1), 31-77.

Lewis, J. D. (2002). Promoting growth and employment in South Africa.*South African Journal of Economics*, 70(4), 725-776.

Lim, E. G. (2001). Determinants of and the relation between foreign direct investment and growth: A summary of recent literature. *IMF Working Paper* No. 175.

Ljung, G. M. & Box, G. E. P. (1978). On a measure of lack of fit in time series models. *Biometrika.* 66(1), 66-72.

Lothian, J. R. & McCarthy, C. (2001). Equity returns and inflation: The puzzlingly long lags.*Research in Banking and Finance Elsevier*, 2(1), 149-166.

Lumbila, K. N. (2005). What makes FDI work? A panel analysis of the growth effect of fdi in Africa. *Africa Region Working Paper Series No. 80*.

Lyroudi, K., Papanastasiou, A. & Vamvakidis, A. (2004). The importance of FDI on economic growth: Evidence from transition economy. *South- Eastern Europe Journal of Economics.*1(1), 97-110.

Mainardi, S. (1992). Foreign direct investment in Latin America and Southeast Asia: Relevance of macroeconomic and policy-related factors.*Giornale delgi Economisti*, 51(5), 259-279

Malik, K. (2013). The rise of the south:human progress in a diverse world.*Human Development Report 2013. (World Bank)*

Mankiw, N. G. (2003). *Market Development on Economic Growth in Nigeria (1980-2009). Macroeconomics (5ed):* World Publishers, New York.

Maunder, P., Myers, D., Wall, N., Miller, R. (1991) *Economics Explained*. 2nd ed, London:HarperCollins.

Michael, N. (2014). Overview: Ex Post Facto (aka "causal-comparative").*Designs Strategies for Educational Inquiry* (Online Source).

Miner, C., & Pentecost, E. (1996). Locational advantage and us foreign direct investment in the UK. *Applied Economics,* 28(1), 605-15

Mochmann, E. (2012). Data archiving and the uses of secondary analysis.*Central Archives for Empirical Social Research.* University of Cologne. Retrieved from http://www.metadater.org

Mojekwu, J. N. & Ogege, S. (2012). Foreign direct investment and the challenges of sustainable development in Nigeria. *Journal of Research in International Business and Management.* 2(7). 190-198.

Moolman, C. E, Roos, E. L, Le roux, J. C., & Du toit, C. B, (2006). Foreign direct investment: South Africa's elixir of life? *University of Pretoria Working Paper*, Pretoria.

Moosa, I. A. (2002). *Foreign direct investment: Theory, evidence and practice.* London: Palgrave.

Morck, R., Shleifer, A., Vishny, R. (1990).The stock market and investment: Is the stock market asideshow?*Brookings Paper on Economic Activity*, 2(1), 157–202.

Morisset, J. & Pirnia, N. (2001). How tax policy and incentives affect foreign direct investment: a review, in using tax incentives to compete for foreign investment:Are they worth the costs? eds. L. T. J. Wells, N. J. Allen, J. Morisset and N. Pirnia. (*Washington*: *Foreign Investment Advisory Service*), 69-108.

Morisset, P. (2000*).* Foreign direct investment to Africa: Policies also matter. *Transnational Corporation Journal*,9(1), 107-125

Morrissey, O. & Rai, Y. (1995). The GATT agreement on trade-related investment and their relationship with transactional corporations.*Journal of Development Studies*, 31(2), 702-724.

Mottaleb, K. A. (2007). Determinants of foreign direct investment and its impact on economic growth in developing countries. *Munich Personal RePEc Archive*, Paper no. 9547.

Muddassar, S. & Shuangqin, L. (2015). Influence of foreign direct investment on gross domestic product: An empirical study of Pakistan. *American Journal of Economics and Business Administration,* 7 (2), 94-100. DOI: 10.3844/ajebasp.2015.94.100

Muhammad, A. K. (2007). Foreign direct investment and economic growth: The role of domestic financial sector.*Pakistan Institute of Development Economics*.2007 Conference.

Nafziger, E.W. (1997). *The Economics of Developing Countries* (3ed). Prentice Hall International, New Jersey.

Ndikumana, L. & Verick, S. (2008). The linkages between foreign direct investments and domestic investment: Unravelling the developmental impact of foreign investments in Sub-Sahara Africa. *A Journal of Developmental Policy Review*, 2008, 26(6): 713-726.

Ndikumana, L. (2003). Capital flows, capital account regimes, and foreign exchange rate regimes in Africa. Working Paper Series No. 55, *Political Economy Research Institute (PERI)*, University of Massachusetts Amherst.

Nelson, C. R. (1976). Inflation and rates of return on common stocks.*Journal of Finance*, 31(1), 471-483.

Nishat, M.& Anjum, A. (1998). The empirical determinants of foreign direct investment in Pakistan. *Saving and Development.* 24(4), 471–479.

Nnanna, J. O. (2002). *Monetary Policy and Exchange rate Stability: A general overview.* Proceedings of Nigeria Economic Society's One-day seminar held Lagos.

Nwaolisa, E. F., Kasie, E. G.& Egbunike, C. F (2013). The impact of capital market on the growth of the nigerian economy under democratic rule. *Arabian Journal of Business and Management Review* (OMAN Chapter) 3(2), 53-62.

Nweke, A. E. (1999). *Practical Approach to Research Methods and Statistics.* Onitsha Onwubiko Printing and Packaging Ltd.

Nwosa, P. I. (2015).Impact of infrastructural expenditure on stock market development in Nigeria. *Scholars Middle East Publishers*-Bulletin 1 (1), 1-4

Nyang`oro, O. (2013).Foreign portfolio flows and stock market performance in Kenya: Case of Nairobi Securities Exchange. An extract from thesis submitted to the *University of Nairobi, Kenya.*

Nyasha, S. & Odhiambo, N. M. (2015). Banks, stock market development and economic growth in South-Africa: A multivariate causal link. *Journal of Applied Economics Letters,*.22(18), 180-204.

Nyong, M. O. (1997). Capital market development and long-run economic growth: Theory, evidence and analysis. *First Bank Review*, 4(1), 13-38.

Oke, B.& Mokuolu, J. O. (2004). Stock market development and economic growth in Nigeria: An empirical analysis. *Nigeria Journal of Banking and Financial.* 6(1), 55-67.

Oke, M. O.& Adeusi, S. O. (2012). Impact of capital market reforms on economic growth: The Nigerian experience. *Australian journal of Business and management research, 2*(2), 20-30.

Oke, M. O. (2012). Foreign direct investment and the nigerian financial sector growth. *Asian Economic and Financial Review,* 2(2), 262-275.

Okodua, H.& Ewetan, O. O. (2013). Stock market performance and sustainable economic growth in Nigeria: A bounds testing co-integration approach. *Journal of Sustainable Development,* 6 (8). 124-138.

Okonkwo, O. N., Ogwuru, H. O.& Ajudua, E. I. (2014). Stock market performance and economic growth in Nigeria: An empirical appraisal. *European Journal of Businessand Management, 6* (26), 33-42.

Okonkwo, R. I, Egbunike, F, C. & Udeh, F. N. P. (2015). Foreign direct investment and economic growth in Nigeria. *A Journal of Developing Country Studies*, 5(9), 213-222.

Olowe, O., Mathew, O. & Fasina, F. (2011). Nigeria stock exchange and economic growth. *Covenant University, Nigeria, Knowledge management elibrary*, No.14, 2011.

Oluwatosin, E.O. Adekanye, T.& Yusuf, S.A. (2013). Empirical analysis of the impact of capital market efficiency on economic growth and development in Nigeria. *International Journal of Academic Research in Economics and Management Sciences*, 2(6), 44-53.

Olweny, T. O. & Kimani, D. (2011). Stock market performance and economic growth: Empirical evidence from Kenya using causality test approach. *A Journal of Advances in Management and Applied Economics*, 1(3),153 – 196.

Onu, A. J. & Njiforti, P. P. (2010). The relationship between foreign direct investment and economic growth in Nigeria (1986-2007). *A Journal of Research in National Development*, 8(1), 126-134.

Onwumere, J.U.J. (2009). *Business and Economic Research methods.* (Enugu) Vougasen limited 2nd Edition

Onwumere, J. U. J., Ibe, I. G., Okafor, R. G., & Uche, U. B. (2012). Stock market and economic growth in Nigeria: Evidence from the demand-following hypothesis. *European Journal of Business and Management*, 4(19), 1-9.

Oriakhi, D. & Osemwengie, P. (2012). The impact of national security on foreign direct investment in Nigeria: An empirical analysis. *Journal of Economics and Sustainable Development*, 3(13), 88-96.

Oseni, O. I. & Enilolobo, S.O. (2011). Effect of foreign direct investment and stock market growth.*A Journal of Finance,*14 (2), 12-20.

Oseni, O. I. & Enilolobo, S.O. (2011). Effect of foreign direct investment and stock market development on economic growth in Nigeria. *Journal of Economics and Sustainable Development,*2(9), 20-31.

Osho, A. E. (2014). The role of stock market on Nigeria's economic development. *International Journal of Scientific and Research Publications*, 4(4), 5-16.

Osinubi, T. S. (2002).Does stock market promote economic growth in Nigeria? Retrieved from*http://sta.uwi.edu/conferences/financeconference/*

Osman, C. (2000). *Policy competition for foreign direct investment.* A study of competition among government to attract FDI in OECP, Paris.

Osuala, A. E. (2010). *Econometrics: Theory and Problems* (Umuahia) Toni Prints Series

Otchere, I., Soumare, I.& Yourougou, P. (2011). FID and financial market development in Africa [Online]. Retrieved from:http://www.uneca.org/sites/default/files/page_attachments/soumare_and_otcherel-fdi_and_financial_market_development_in_africa

Ötker-Robe, İ., Polański, Z., Topf, B.& Vávra, D. (2007). Coping with capital inflows: experiences of selected European Countries.*IMF Working Paper,* WP/07/190.

Oyatoye, E. O., Arogundade, K. K., Adebisi, S. O.& Oluwakayode, E. (2011). Foreign direct investment, export and economic growth in Nigeria. *Journal of Humanities and Social Sciences*, 2(1), 14-26.

Oyejide, T. A. (2002). *Monetary Policy and its Effects on the Nigerian Economy.* Proceedings of Nigeria Economic Society's One-day seminar held Lagos.

Pack, H. (1994). Endogenous growth theory: Intellectual appeal and empirical shortcomings. *Journal of Economic Prospectives*8(1), 55-72.

Pagan, A.& Wickens, M. (1989). A survey of some recent econometric methods. *Economic Journal*, 99(398): 962-1025.

Pain, N.& Lansbury, M. (1997). Regional economic integration and foreign direct investment: The case of german investment in Europe.*National Institute Economic Review,* No. 160, 2(9). 87-99.

Parthapratim P. (2006). *Foreign portfolio investment stock market and economic development: A case study of India.* Draft paper submitted for the Annual conference of Development and Change mission promoting development in a globalized world.

Patton, A. J. (2002). *Copula Methods for Forecasting Multivariate Time Series.* Handbook of Economic Forecasting (2ed.).

Phillips, P.C.B & Perron, P. (1988). Testing for units roots in a time series regression.*Biometrika,* 75(1),335-346.

Popoola, O.T. (2014). The effect of stock market on economic growth and development of Nigeria. *Journal of Economics and Sustainable Development*, 5(15), 181-187.

Raines, P.& Brown, R. (1999). *Policy Competition and Foreign Direct Investment in Europe.* Ashagate Publishing Aldershot, England.

Rajan, R. J. & Zingales, L.(2003). *Saving Capitalism from the Capitalists: Unleashing the Power of Financial Markets to Create Wealth and Spread Opportunity.* Princeton University Press, Princeton, NJ.

Ramsey, J.B. (1969).Tests for specification errors in classical linear least-squares analysis.*Journal of the Royal Statistical Society*, Series B, 71(1), 350- 371.

Roc, C. (1996). *Emerging Asian Equity Markets Development: A Historical Perspective in The Changing Capital Markets of East Asia*, 1996, editor Ky Cao, Routledge, London.

Romer, P. (1993). Idea gaps and object gaps in economic development.*Journal of Monetary Economics.* 32(3), 543-573.

Roza, A. D. & Shahla, F. A. (2014). *Alternative Dispute Resolution Design in Financial Markets.*some more equal than others:Presented at the DSA Conference.Universality of Strathclyde, Glasgow.

Samarakoon, L. P. (1996). Stock market returns and inflation:Sri Lankan evidence. Sri Lankan.*Journal of Management*, 1(4): 293-311.http://www.livelihoods.org

Samuelson, P. (1965). Proof that properly anticipated prices fluctuate randomly.*Industrial Management Review* 6(1), 41–49.

Sanusi, J. O. (2002). *Central Bank and the Macro economics' environment in Nigeria.* A Lecture Delivered at Senior Executive course No 24 Institute for Policy and Strategy Studies.

Sarr, A. & Lybek, T. (2002). Measuring liquidity in financial markets.*IMF Working Paper*, WP/02/232.

Shabbir, T. & Mahmood, A.(1992).The effects of foreign private investment on economic growth in Pakistan.*Pak. Develop. Rev*., 31(1), 831-841.

Shah, A. & Thomas, S. (2001). Securities markets infrastructure for small countries.*Mimeo*, World Bank.

Shah, A. (1995). The Indian IPO market: Empirical facts. Working paper. *Centre for Monitoring Indian Economy*, Bombay, India.

Shaibu, I.B., Osemwengie, P.k. & Oseme, S.A. (2014). Capital market activities and economic growth in Nigeria: further evidence from var methodology. *International Journal of Business and Management Review,* 2(3), 32-47.

Shawa, M. J. (2013). Causality relationship between foreign direct investment, GDP growth and export for Tanzania. *International Journal of Economics and Finance*; 5(9), 13-19. Retrieved from http://dx.doi.org/10.5539/ijef.v5n9p13.

Simpson, M. K. & Goes, J. (2013). *Dissertation and Scholars Research Recipes for Success.* Seattle, WA Dissertation Success LLC.

Singh, A. (1999). Macroeconomics and reality. *Econometrica* 48, 1- 49.

Singh, A. & Weisse, B. A. (1998).Emerging stock markets, portfolio capital flows and long-term economic growth: micro and macroeconomic perspectives. *World Development Journal,*26(4), 607-622.

Singh, A. (1997). Financial liberalisation, stock markets, and economic development.*The Economic Journal,* 107(17), 771–782.

Smith, L. H. (1990). Stock prices behaviour in the American economy.*American Economic Review.* Proceedings 71, (419430)

Solow, R. M. (1962). Technical progress, capital formation and growth.Retrieve from: http://www.*jstor*.org/stable/1910871.

Soumaré, I. & Tchana, T. F. (2015).Causality between FDI and financial market development: Evidence from emerging markets.*World Bank Economic Review Journal, 2015*

Stern, R. L. & Bernstein, P. (1985). *Why new issue are lousy investments.* Forbes 136(3), 152-190.

Stiglitz, J. E. (1985). Credit markets and the control of capital.*Journal of Money, Credit and Banking.* 71(1), 324-376.

Stiglitz, J. E. (2000). Capital market liberalization, economic growth, and instability. *World Development Journal*25(1), 1075–1086.

Stonie, R. A. & Hague, D. (1975). *A Textbook of Economic Theory* (4e). Longman Group Ltd, London.

Streak, J. (1998). *The Determinants of FDI and South Africa's industrial development strategy: towards a research agenda*. School of Economics, University of Cape Town.

Stulz, R. (1999).Globalization, corporate finance and the cost of capital. *Journal of AppliedCorporate Finance,* 12(1), 8-25.

Stulz, R. (1981).On the effects of barriers to international asset pricing.*Journal of Finance*25(2), 783-794.

Sudweeks, B.L.(1989),*Equity Market Development in Developing Countries*. New York: Praeger.

Sulaiman, U. M. & Mohammed, I. (2014).Stock market development, foreign direct investment and macroeconomic stability: Evidence from Nigeria.*Iiste* 5(18), 112-121

Syed, A. R., Syed, T. J.& Sahar, A. (2013). Is stock market sensitive to foreign capital inflows and economic growth?:Evidence from Pakistan, *MPRA paper* No. 48399.

Sylwester, K. (2005). *Foreign Direct Investment, Growth, and Income Inequality. (3ed)*

Thirlwall, A. P. (2003). *Growth and development – with special reference to developing economies* (7e). Press Ltd Macmillan, New York.

Todd, M. G. & Kraybill, D. S. (2002). The effect of state economic development incentives on employment growth of establishments. *Journal of regional science*, 42(4), 703-730.

Tourism Investment Conference (2007)

UNCTAD (2013a). *Economic Development in Africa Report 2013* – Intra-African Trade. Unlocking Private Sector Dynamism.

UNCTAD (2013b). *Global Investment Trends Monitor* – The rise of BRICS FDI and Africa. Special Edition.

UNCTAD (2013c). *World Investment Prospects Survey* 2013-2015.

UNCTAD (2013d). *World Investment Report* 2013 – Global value chains: Investment and trade for development.

UNCTAD (2014a). *Definitions of FDI.* http://untad.org/en/Pages/DIAE/Definitions-of-FDI.aspx, retrieved March 8, 2014.

UNCTAD (2014b). *Foreign Direct Investment (FDI).* http://unctad.org/en/Pages/DIAE/Foreign-Direct-Investment-(FDI).aspx, retrieved March 8, 2014.

UNCTAD (2014c). *Global Investment Trends Monitor* No. 15.

UNCTAD (2007). *World Investment Report*_TNCs in Extractive Industries and Manufacturing.

UNCTADSTAT (2014). *Inward foreign direct investment flows, annual.* http://unctadstat.unctad.org/TableViewer/tableView.aspx?ReportId=98, retrieved March 9, 2014.

USA-Kenya Chambers of Commerce of Commerce (2005)

Utesch, F. (2014). *Manufacturing of foreign companies in Ethiopia and Kenya - Economic and social impacts.* University of Applied Sciences, Münster Department of Business Economics.

Vagias, D. & Van-Dijk, M. A. (2011). *International capital flows and liquidity.*Retrieved from: http://ssrn.com/abstract=1571858.

Venables, A. J. (1996a).Equilibrium locations of vertically linked industries.*International Economic Review,* 37(1), 341-359.

Walker, R. & Greenstreet, D. (1991). The effect of government incentives and assistance on location and job growth in manufacturing.*Regional Studies,* 25(1) 13-30.

Wang, Z. Q. & Swain, N. J. (1995). The determinants of foreign direct investment in transforming economies: evidence from Hungary and China.*Weltwirtschaftliches Archiv,* 131(1). 359-382.

Well, et al (2001). Using Tax Incentive to Compete for Foreign Investment: Are they Worth the Cost? *Foreign investment Advisory Service*, World Bank.

Wells, J. (2001). Irrational ratios. *Journal of Accountancy*, 1(1), 80-83.

Wells, L. & Allen, N. (2002). Tax holidays to attract foreign investment*:* lessons from two experiments. In L. Wells, N. Allen and others, Using tax incentives to compete for foreign investment: are they worth the cost*?*,*Occasional Paper,* No 15, Washington, D.C., International Finance Corporation/World Bank.

Wheeler, D. & Mody, A. (1992). International investment location decisions: the case of US firms. *Journal of International Economics*, 33(1), 57-76, Working Paper No. 03/69.

Wider (1990). Foreign portfolio investment in emerging equity markets.*Study Group Series,* No. 5, WIDER. Helsinki.

Wilson, J. (1996). The tax treatment of imperfectly mobile firms; rent seeking, rent protection and rent destruction. In Feenstr, R., Grossman, G., & Irwin, D. (Eds). *The Political Economy of Trade Policy*: Papers in Honour of Jaydish Bhagwati MIT Press.

Wooldridge, J. M (2006). *Introductory Econometrics. A modern Approach* (3rd edition). Thomson South-Western. Steven Momper Publishers, Canada.

World Bank (1997) *Economic Review*

World Bank (2014) *Economic Review*

World Bank (2014). Making Foreign Direct Investment work for Sub-Saharan Africa: Local Spillovers and competitiveness in Global Value Chain (GVC). *World Bank elibrary*, April 2014. Doi: 10.1596/978-1-4648-0126-6.

World Bank (2015) *Economic and Business Review 1(15), 26-46. No.4, 2015*

Yamin, M. (2000). *A critical re-evaluation of Hymer's contribution to the theory of the transnational corporation*, Routledge, London.

Yartey, C.A. & Adjasi, C. K. (2007). Stock market development in Sub-Saharan Africa: critical issuesand challenges.*IMF Working Paper* 07/209.

Yartey, C. A. (2008). The determinants of stock market development in emerging economies: Is South Africa different?*Economic review Journal* 8(1), 67-85. (International Monetary Fund, Yu& Walsh, 2010)

Zafar, M. (2013). Determinants of stock market performance in Pakistan.*Interdisciplinary Journal of Contemporary Research in Business*, 4(9), 1017-1026.

Zuliu, H. (1995). Stock market volatility and corporate investment. *IMF Working Paper*, 95/102.

Zunino, L. et al. (2009). Multifractal structure in Latin-American market indices.*Chaos, Solitons and Fractals*, 41(5), 2331–2340.

APPENDICES

1. Annual Foreign Direct Investment and Foreign Portfolio Investments: ($'million) From 1984 – 2015 (Nigeria, South-Africa and Kenya)

Year	FDI (NIG)	FPI (NIG)	FDI (SA)	FPI (SA)	FDI (KEN)	FPI (KEN)
1984	468.05	0	0	0	6.91	0.72
1985	487.75	0	16.98	0.07	1.23	1.56
1986	420.34	0.085	1.69	(0.04)	0.23	3.46
1987	610.15	1.08	4.37	(0.08)	9.86	3.74
1988	378.46	0.57	3.87	(0.08)	14.44	2.21
1989	1885.5	0.22	5.50	(1.35)	18.93	8.11
1990	578.88	0.05	(75.72)	(1.78)	57.08	6.55
1991	712.37	0.05	254.13	(2.17)	18.83	1.51
1992	896.64	2.13	3.36	(0.51)	6.36	4.10
1993	1345.37	0.01	11.29	(0.01)	145.66	0.17
1994	1959.22	9.09	374.41	(0.52)	7.43	0.24
1995	1079.27	0.26	1248.42	(2.52)	42.29	0.29
1996	1593.46	0.55	816.39	(14.23)	108.67	0.37
1997	1539.45	0.21	3810.54	(34.34)	62.09	1.70
1998	1051.33	0.02	550.34	(54.59)	26.59	0.06
1999	1004.92	0.01	1503.33	(57.72)	51.95	0.39
2000	1140.14	0.50	966.83	(46.75)	110.90	10.86
2001	1190.63	0.83	7270.34	(89.69)	5.30	6.88
2002	1874.04	0.20	1479.80	(20.77)	27.62	10.02
2003	2005.39	0.18	783.14	(1.42)	81.74	38.68
2004	1874.03	20.17	701.42	(6.49)	46.06	71.66
2005	4982.53	6.82	6522.09	(5.94)	21.21	45.88
2006	4854.42	9.67	623.29	(13.83)	50.67	23.59

2007	6034.97	11.59	6586.79	(20.08)	729.04	25.5
2008	8196.61	15.32	9885.00	(55.14)	95.95	35.94
2009	8554.84	14.43	7624.49	(45.31)	116.26	23.67
YEAR	**FDI (NIG)**	**FPI (NIG)**	**FDI (SA)**	**FPI (SA)**	**FDI (KEN)**	**FPI (KEN)**
2010	6026.23	18.15	3693.27	(22.23)	178.06	51.17
2011	8841.11	23.97	4139.29	(32.23)	139.86	81.18
2012	7069.93	40.13	4626.03	(21.14)	163.41	40.83
2013	5562.87	53.70	8232.52	(7.85)	371.85	34.14
2014	4655.85	61.67	5740.65	(17.32)	944.33	55.38
2015						

Table 5 (Continued) -**Annual Foreign Direct Investment and Foreign Portfolio Investments: ($'million)From 1984 – 2015 (Nigeria, South-Africa and Kenya)**

Source: NIG: World bank data bank and National Bureau of Statistics, Nigeria, 2016
SA: World bank data bank and Statistics South Africa, 2016
KEN: World bank data bank and Kenya Bureau of Statistics, 2016
Translations from local currencies were through Indexmundi, 2016
Where: FDI = Foreign Direct Investments and FPI = Foreign Portfolio Investments

2. **Breusch-Godfrey Serial Correlation LM Test – Nigeria Data**

Breusch-Godfrey Serial Correlation LM Test:				
F-statistic	1.382660	Prob. F(2,19)		0.2750
Obs*R-squared	3.557447	Prob. Chi-Square(2)		0.1689
Test Equation: Equation 3.11				
Dependent Variable: RESID				
Method: Least Squares				
Date: 10/27/16 Time: 11:22				
Sample: 1988 2015				
Included observations: 28				
Presample missing value lagged residuals set to zero.				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	74.66652	98.90605	0.754924	0.4596
FDIR(-4)	-9.105566	10.35527	-0.879317	0.3902
ASI(-4)	0.000805	0.002007	0.400799	0.6930
NLS(-4)	-0.327751	0.633498	-0.517368	0.6109
TUNR(-4)	-2.454037	6.025953	-0.407245	0.6884
VSTR(-4)	1.549903	4.041208	0.383525	0.7056
GDP(-4)	0.904091	2.951371	0.306329	0.7627
RESID(-1)	0.406155	0.293418	1.384222	0.1823
RESID(-2)	0.186906	0.233698	0.799777	0.4337
R-squared	0.127052	Mean dependent var		-4.64E-14
Adjusted R-squared	-0.240505	S.D. dependent var		57.05077
S.E. of regression	63.54200	Akaike info criterion		11.39637
Sum squared resid	76714.13	Schwarz criterion		11.82458
Log likelihood	-150.5492	Hannan-Quinn criter.		11.52728
F-statistic	0.345665	Durbin-Watson stat		1.653110
Prob(F-statistic)	0.936276			

Source: Author's E-view 7 computations

3. **Breusch-Godfrey serial correlation Test for South Africa**

Breusch-Godfrey Serial Correlation LM Test:				
F-statistic	0.524342	Prob. F(2,21)		0.5995
Obs*R-squared	1.426867	Prob. Chi-Square(2)		0.4900
Test Equation:				
Dependent Variable: RESID				
Method: Least Squares				
Date: 10/27/16 Time: 12:15				
Sample: 1984 2014				
Included observations: 30				
Presample and interior missing value lagged residuals set to zero.				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-5.627294	50.35699	-0.111748	0.9121
ASI(1)	2.64E-05	0.000892	0.029588	0.9767
FDIR(1)	0.150195	3.699904	0.040594	0.9680
GDP(1)	0.941310	3.900886	0.241307	0.8117
NLS(1)	0.005964	0.075952	0.078527	0.9382
TUNR(1)	0.271721	1.758276	0.154539	0.8787
VSTR(1)	-0.112485	1.000511	-0.112427	0.9116
RESID(-1)	0.227895	0.224729	1.014090	0.3221
RESID(-2)	-0.024717	0.236133	-0.104674	0.9176
R-squared	0.047562	Mean dependent var		1.33E-15
Adjusted R-squared	-0.315271	S.D. dependent var		30.97805
S.E. of regression	35.52726	Akaike info criterion		10.22180
Sum squared resid	26505.90	Schwarz criterion		10.64216
Log likelihood	-144.3270	Hannan-Quinn criter.		10.35628
F-statistic	0.131086	Durbin-Watson stat		1.942552
Prob(F-statistic)	0.996986			

Source: Author's E-view 7 computation

4. **Breusch-Godfrey Serial Correlation Test – Kenya**

Breusch-Godfrey Serial Correlation LM Test:				
F-statistic	0.303660	Prob. F(4,19)		0.8719
Obs*R-squared	1.802615	Prob. Chi-Square(4)		0.7720
Test Equation: Equation 3.11				
Dependent Variable: RESID				
Method: Least Squares				
Date: 10/27/16 Time: 07:47				
Sample: 1984 2014				
Included observations: 30				
Presample and interior missing value lagged residuals set to zero.				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.172550	6.714323	0.174634	0.8632
FDIR(1)	-0.424898	2.302255	-0.184557	0.8555
GDP(1)	-0.193171	0.735565	-0.262615	0.7957
NLS(1)	-0.072290	0.219038	-0.330034	0.7450
TUNR(1)	0.359727	1.169807	0.307510	0.7618
VSTR(1)	-0.704558	2.451819	-0.287362	0.7769
ASI(1)	0.000814	0.002131	0.382246	0.7065
RESID(-1)	-0.046851	0.256937	-0.182344	0.8572
RESID(-2)	-0.312414	0.269740	-1.158203	0.2611
RESID(-3)	-0.045323	0.265006	-0.171025	0.8660
RESID(-4)	-0.055706	0.267476	-0.208267	0.8372
R-squared	0.060087	Mean dependent var		-1.60E-15
Adjusted R-squared	-0.434604	S.D. dependent var		5.964875
S.E. of regression	7.144426	Akaike info criterion		7.047117
Sum squared resid	969.8137	Schwarz criterion		7.560889
Log likelihood	-94.70676	Hannan-Quinn criter.		7.211477
F-statistic	0.121464	Durbin-Watson stat		2.020191
Prob(F-statistic)	0.999181			

Source: Author's E-Views 7 computation

5. Heteroskedasticity Table for Nigeria

Heteroskedasticity Test: ARCH				
F-statistic	2.655278	Prob. F(1,28)		0.1144
Obs*R-squared	2.598520	Prob. Chi-Square(1)		0.1070
Test Equation: Equation 3.11				
Dependent Variable: RESID^2				
Method: Least Squares				
Date: 10/26/16 Time: 17:28				
Sample (adjusted): 1985 2014				
Included observations: 30 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2826.431	1242.364	2.275042	0.0308
RESID^2(-1)	0.294786	0.180906	1.629502	0.1144
R-squared	0.086617	Mean dependent var		4013.468
Adjusted R-squared	0.053997	S.D. dependent var		5667.317
S.E. of regression	5512.186	Akaike info criterion		20.13165
Sum squared resid	8.51E+08	Schwarz criterion		20.22506
Log likelihood	-299.9748	Hannan-Quinn criter.		20.16153
F-statistic	2.655278	Durbin-Watson stat		2.097297
Prob(F-statistic)	0.114407			

Source: Author's E-View 7 computations

6. Heteroskedasticity table for South Africa

Heteroskedasticity Test: ARCH				
F-statistic	1.275092	Prob. F(1,26)		0.2691
Obs*R-squared	1.308981	Prob. Chi-Square(1)		0.2526
Test Equation:				
Dependent Variable: RESID^2				
Method: Least Squares				
Date: 10/27/16 Time: 12:28				
Sample (adjusted): 1985 2014				
Included observations: 28 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	704.4595	290.0046	2.429132	0.0224
RESID^2(-1)	0.216071	0.191348	1.129200	0.2691
R-squared	0.046749	Mean dependent var		919.1045
Adjusted R-squared	0.010086	S.D. dependent var		1164.837
S.E. of regression	1158.948	Akaike info criterion		17.01716
Sum squared resid	34922152	Schwarz criterion		17.11232
Log likelihood	-236.2403	Hannan-Quinn criter.		17.04625
F-statistic	1.275092	Durbin-Watson stat		1.858343
Prob(F-statistic)	0.269125			

Source: author's E-view 7 computations

7. **Heteroskedasticity table for Kenya**

Heteroskedasticity Test: ARCH				
F-statistic	0.194578	Prob. F(2,23)		0.8245
Obs*R-squared	0.432595	Prob. Chi-Square(2)		0.8055
Test Equation: Equation 3.11				
Dependent Variable: RESID^2				
Method: Least Squares				
Date: 10/27/16 Time: 08:25				
Sample (adjusted): 1986 2014				
Included observations: 26 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	40.60195	18.65590	2.176359	0.0400
RESID^2(-1)	-0.120889	0.207528	-0.582521	0.5659
RESID^2(-2)	-0.060189	0.204140	-0.294841	0.7708
R-squared	0.016638	Mean dependent var		34.38485
Adjusted R-squared	-0.068871	S.D. dependent var		75.01185
S.E. of regression	77.55193	Akaike info criterion		11.64794
Sum squared resid	138328.9	Schwarz criterion		11.79310
Log likelihood	-148.4232	Hannan-Quinn criter.		11.68974
F-statistic	0.194578	Durbin-Watson stat		2.073455
Prob(F-statistic)	0.824523			

Source: Author's E-view 7 Computation

8.Ramsey Reset Specification – Nigeria Data

Ramsey RESET Test				
Equation: UNTITLED				
Specification: ASI C FDIR GDP MCR NLS TUNR VSTR				
Omitted Variables: Squares of fitted values				
	Value	df	Probability	
t-statistic	1.138314	24	0.2662	
F-statistic	1.295758	(1, 24)	0.2662	
Likelihood ratio	1.682652	1	0.1946	
F-test summary:				
	Sum of Sq.	df	Mean Squares	
Test SSR	59189056	1	59189056	
Restricted SSR	1.16E+09	25	46219507	
Unrestricted SSR	1.10E+09	24	45679109	
Unrestricted SSR	1.10E+09	24	45679109	
LR test summary:				
	Value	df		
Restricted LogL	-323.8389	25		
Unrestricted LogL	-322.9975	24		
Unrestricted Test Equation:				
Dependent Variable: ASI				
Method: Least Squares				
Date: 03/10/17 Time: 08:40				
Sample: 1984 2015				
Included observations: 32				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-8352.210	17581.65	-0.475053	0.6390
FDIR	-1079.775	967.4192	-1.116139	0.2754
GDP	161.1343	311.4835	0.517312	0.6097
MCR	-7.722902	19.11001	-0.404129	0.6897
NLS	106.0120	113.2728	0.935899	0.3586
TUNR	70.90772	1791.113	0.039589	0.9687
VSTR	-132.5971	754.7382	-0.175686	0.8620
FITTED^2	2.12E-05	1.86E-05	1.138314	0.2662
R-squared	0.839947	Mean dependent var		14200.08
Adjusted R-squared	0.793265	S.D. dependent var		14864.55
S.E. of regression	6758.632	Akaike info criterion		20.68735
Sum squared resid	1.10E+09	Schwarz criterion		21.05378
Log likelihood	-322.9975	Hannan-Quinn criter.		20.80881
F-statistic	17.99291	Durbin-Watson stat		1.576345
Prob(F-statistic)	0.000000			

Source: Author's E-view 7 Computation

9. **Ramsey Reset Specification - South Africa Data**

Ramsey RESET Test				
Equation: UNTITLED				
Specification: FDIR C GDP MCR ASI NLS TUNR VSTR				
Omitted Variables: Squares of fitted values				
	Value	df	Probability	
t-statistic	0.829523	23	0.4153	
F-statistic	0.688109	(1, 23)	0.4153	
Likelihood ratio	0.913848	1	0.3391	
F-test summary:				
	Sum of Sq.	df	Mean Squares	
Test SSR	2.877099	1	2.877099	
Restricted SSR	99.04402	24	4.126834	
Unrestricted SSR	96.16692	23	4.181170	
Unrestricted SSR	96.16692	23	4.181170	
LR test summary:				
	Value	df		
Restricted LogL	-61.99154	24		
Unrestricted LogL	-61.53462	23		
Unrestricted Test Equation:				
Dependent Variable: FDIR				
Method: Least Squares				
Date: 11/26/16 Time: 15:29				
Sample: 1984 2015				
Included observations: 31				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.284943	7.286380	0.588076	0.5622
GDP	0.112969	0.305802	0.369421	0.7152
MCR	0.000624	0.017773	0.035082	0.9723
ASI	-6.68E-05	0.000138	-0.484084	0.6329
NLS	-0.010746	0.020259	-0.530431	0.6009
TUNR	0.079187	0.199152	0.397621	0.6946
VSTR	-0.019763	0.095885	-0.206109	0.8385
FITTED^2	0.778641	0.938661	0.829523	0.4153
R-squared	0.147073	Mean dependent var		1.804194
Adjusted R-squared	-0.112513	S.D. dependent var		1.938637
S.E. of regression	2.044791	Akaike info criterion		4.486104
Sum squared resid	96.16692	Schwarz criterion		4.856166
Log likelihood	-61.53462	Hannan-Quinn criter.		4.606735
F-statistic	0.566569	Durbin-Watson stat		1.585651
Prob(F-statistic)	0.775207			

Source: Author's E-view 7 Computation

10. **Ramsey RESET Specification - Kenya data**

Ramsey RESET Test				
Equation: UNTITLED				
Specification: FDIR C GDP MCR ASI NLS TUNR VSTR				
Omitted Variables: Squares of fitted values				
	Value	df	Probability	
t-statistic	1.088178	23	0.2878	
F-statistic	1.184132	(1, 23)	0.2878	
Likelihood ratio	1.556277	1	0.2122	
F-test summary:				
	Sum of Sq.	df	Mean Squares	
Test SSR	0.456366	1	0.456366	
Restricted SSR	9.320605	24	0.388359	
Unrestricted SSR	8.864238	23	0.385402	
Unrestricted SSR	8.864238	23	0.385402	
LR test summary:				
	Value	df		
Restricted LogL	-25.35982	24		
Unrestricted LogL	-24.58168	23		
Unrestricted Test Equation:				
Dependent Variable: FDIR				
Method: Least Squares				
Date: 11/26/16 Time: 15:45				
Sample: 1984 2015				
Included observations: 31				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.183892	0.869881	0.211398	0.8344
GDP	-0.007970	0.059098	-0.134854	0.8939
MCR	0.007555	0.055057	0.137226	0.8920
ASI	-5.51E-05	0.000521	-0.105772	0.9167
NLS	0.002690	0.022359	0.120333	0.9053
TUNR	0.003007	0.174980	0.017186	0.9864
VSTR	-0.065928	0.466733	-0.141253	0.8889
FITTED^2	0.759888	0.698312	1.088178	0.2878
R-squared	0.370377	Mean dependent var		0.542903
Adjusted R-squared	0.178752	S.D. dependent var		0.685046
S.E. of regression	0.620807	Akaike info criterion		2.102044
Sum squared resid	8.864238	Schwarz criterion		2.472105
Log likelihood	-24.58168	Hannan-Quinn criter.		2.222675
F-statistic	1.932826	Durbin-Watson stat		2.356747
Prob(F-statistic)	0.110201			

Source: Author's E-view 7 Computation

11. PANEL DATA – REDUNDANT FIXED EFFECT TEST

Redundant Fixed Effects Tests				
Equation: Untitled				
Test period fixed effects				
Effects Test		Statistic	d.f.	Prob.
Period F		5.842214	(28,55)	0.0000
Period fixed effects test equation:				
Dependent Variable: MCR				
Method: Panel EGLS (Period weights)				
Date: 03/10/17 Time: 09:38				
Sample (adjusted): 1987 2015				
Periods included: 29				
Cross-sections included: 3				
Total panel (balanced) observations: 87				
Use pre-specified GLS weights				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	13.73282	2.822647	4.865225	0.0000
FDIR(-3)	-0.828796	0.811757	-1.020990	0.3102
GDP(-3)	-0.595605	0.454822	-1.309533	0.1940
MCR(-1)	1.003728	0.021893	45.84613	0.0000
	Weighted Statistics			
R-squared	0.963701	Mean dependent var		192.5639
Adjusted R-squared	0.962389	S.D. dependent var		342.5977
S.E. of regression	48.93418	Sum squared resid		198748.0
F-statistic	734.5147	Durbin-Watson stat		1.438088
Prob(F-statistic)	0.000000			
	Unweighted Statistics			
R-squared	0.849379	Mean dependent var		90.19414
Sum squared resid	104665.3	Durbin-Watson stat		1.797407

Source : Author's E-views computation

12. CORRELATED RANDOM EFFECTHAUSMAN TEST

Correlated Random Effects - Hausman Test				
Equation: Untitled				
Test period random effects				
Test Summary		Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random		3.863123	3	0.2766
Period random effects test comparisons:				
Variable	Fixed	Random	Var(Diff.)	Prob.
FDIR(-3)	-1.280979	-0.359822	2.034949	0.5184
GDP(-3)	0.784424	0.398056	0.692711	0.6425
MCR(-1)	0.977851	0.948503	0.000272	0.0752
Period random effects test equation:				
Dependent Variable: MCR				
Method: Panel Least Squares				
Date: 03/10/17 Time: 09:49				
Sample (adjusted): 1987 2015				
Periods included: 29				
Cross-sections included: 3				
Total panel (balanced) observations: 87				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.627690	5.940299	0.779033	0.4393
FDIR(-3)	-1.280979	2.469527	-0.518715	0.6060
GDP(-3)	0.784424	1.301789	0.602574	0.5493
MCR(-1)	0.977851	0.043668	22.39291	0.0000
	Effects Specification			
Period fixed (dummy variables)				
R-squared	0.920963	Mean dependent var		90.19414
Adjusted R-squared	0.876415	S.D. dependent var		89.88951
S.E. of regression	31.60040	Akaike info criterion		10.02127
Sum squared resid	54922.21	Schwarz criterion		10.92827
Log likelihood	-403.9254	Hannan-Quinn criter.		10.38650
F-statistic	20.67339	Durbin-Watson stat		1.822504
Prob(F-statistic)	0.000000			

Source: Author's E-views computation

13. RESULT: MARKET CAPITALIZATION USING PANEL GLS TEST FORMODEL 1

Dependent Variable: MCR				
Method: Panel EGLS (Period weights)				
Date: 07/23/17 Time: 19:54				
Sample (adjusted): 1986 2015				
Periods included: 30				
Cross-sections included: 3				
Total panel (balanced) observations: 90				
Linear estimation after one-step weighting matrix				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.227526	1.863334	2.268797	0.0258
FDIR(-2)	1.704761	0.826962	2.061476	0.0423
GDP(-2)	-0.433170	0.425123	-1.018927	0.3111
NS	-5.941039	2.737767	-2.170031	0.0328
MCR(-1)	0.964874	0.018256	52.85333	0.0000
	Weighted Statistics			
R-squared	0.987228	Mean dependent var		169.3700
Adjusted R-squared	0.986627	S.D. dependent var		320.6842
S.E. of regression	31.10120	Sum squared resid		82219.18
F-statistic	1642.529	Durbin-Watson stat		1.892784
Prob(F-statistic)	0.000000			
	Unweighted Statistics			
R-squared	0.872195	Mean dependent var		88.75067
Sum squared resid	90808.44	Durbin-Watson stat		1.968746

Source : Author's E-views computation

14. **RESULT:MARKET TURNOVER RATIO USING PANEL GLSTESTFOR MODEL 2**

Dependent Variable: TUNR				
Method: Panel EGLS (Period weights)				
Date: 07/23/17 Time: 20:37				
Sample (adjusted): 1987 2015				
Periods included: 29				
Cross-sections included: 3				
Total panel (unbalanced) observations: 83				
Linear estimation after one-step weighting matrix				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.153521	0.100303	1.530576	0.1299
FDIR(-3)	0.081040	0.023415	3.460976	0.0009
GDP(-3)	-0.037904	0.024304	-1.559592	0.1229
NS	1.555766	0.493823	3.150452	0.0023
TUNR(-1)	0.893913	0.032016	27.92077	0.0000
	Weighted Statistics			
R-squared	0.967333	Mean dependent var		20.27060
Adjusted R-squared	0.965658	S.D. dependent var		20.97127
S.E. of regression	4.608251	Sum squared resid		1656.406
F-statistic	577.4335	Durbin-Watson stat		1.918591
Prob(F-statistic)	0.000000			
	Unweighted Statistics			
R-squared	0.799991	Mean dependent var		10.77036
Sum squared resid	1780.785	Durbin-Watson stat		2.237831

Source: Author's Eviews computation

15. **RESULT: VALUE OF STOCK TRADED PANEL EGLS TEST FOR MODEL 3**

Dependent Variable: VSTR				
Method: Panel EGLS (Period weights)				
Date: 07/23/17 Time: 21:14				
Sample (adjusted): 1985 2012				
Periods included: 28				
Cross-sections included: 3				
Total panel (balanced) observations: 84				
Linear estimation after one-step weighting matrix				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.092973	0.328078	-0.283387	0.7776
FDIR(3)	0.254948	0.109873	2.320392	0.0229
GDP(3)	-0.191194	0.089268	-2.141813	0.0353
NS	1.500343	0.880404	1.704153	0.0923
VSTR(-1)	0.998313	0.030616	32.60727	0.0000
	Weighted Statistics			
R-squared	0.952478	Mean dependent var		19.92071
Adjusted R-squared	0.950072	S.D. dependent var		26.91135
S.E. of regression	6.747614	Sum squared resid		3596.893
F-statistic	395.8511	Durbin-Watson stat		1.742186
Prob(F-statistic)	0.000000			
	Unweighted Statistics			
R-squared	0.871692	Mean dependent var		14.34131
Sum squared resid	4703.642	Durbin-Watson stat		2.160776

Source : Author's Eviews computation

16. **RESULT: NUMBER OF LISTED SHARES – PANEL EGLS TEST FOR MODEL 4**

Dependent Variable: NLS				
Method: Panel EGLS (Period weights)				
Date: 07/23/17 Time: 22:00				
Sample (adjusted): 1985 2010				
Periods included: 26				
Cross-sections included: 3				
Total panel (balanced) observations: 78				
Linear estimation after one-step weighting matrix				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.894773	2.629183	1.861709	0.0667
FDIR	1.710031	0.678496	2.520324	0.0139
GDP(5)	-1.114182	0.553834	-2.011762	0.0479
NS(-1)	-3.271855	2.311782	-1.415295	0.1612
NLS(-1)	0.979339	0.005627	174.0439	0.0000
	Weighted Statistics			
R-squared	0.997747	Mean dependent var		590.6090
Adjusted R-squared	0.997623	S.D. dependent var		697.2942
S.E. of regression	28.04518	Sum squared resid		57416.84
F-statistic	8081.353	Durbin-Watson stat		1.541985
Prob(F-statistic)	0.000000			
	Unweighted Statistics			
R-squared	0.982965	Mean dependent var		253.0256
Sum squared resid	68796.47	Durbin-Watson stat		1.063331

Source: Author's Eviews computation

17. **RESULT: ALL SHARE INDEX – PANEL EGLS TEST FOR MODEL 5**

Dependent Variable: ASI				
Method: Panel EGLS (Period weights)				
Date: 07/23/17 Time: 22:27				
Sample (adjusted): 1986 2015				
Periods included: 30				
Cross-sections included: 3				
Total panel (balanced) observations: 90				
Linear estimation after one-step weighting matrix				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	57.08097	106.0179	0.538409	0.5917
FDIR(-2)	86.85486	41.69950	2.082875	0.0403
GDP(-2)	5.875002	14.80223	0.396900	0.6924
NS	371.6674	323.9556	1.147279	0.2545
ASI(-1)	1.029904	0.029345	35.09618	0.0000
	Weighted Statistics			
R-squared	0.960391	Mean dependent var		17729.24
Adjusted R-squared	0.958527	S.D. dependent var		15266.56
S.E. of regression	4240.176	Sum squared resid		1.53E+09
F-statistic	515.2391	Durbin-Watson stat		1.650969
Prob(F-statistic)	0.000000			
	Unweighted Statistics			
R-squared	0.862691	Mean dependent var		10839.89
Sum squared resid	2.27E+09	Durbin-Watson stat		2.165244

Source: Author's Eviews computation

18. RESULT: Residual Panel Cointegration Test Result

Pedroni Residual Cointegration Test					
Series: FDIR GDP MCR NLS TUNR VSTR ASI					
Date: 11/29/16 Time: 12:27					
Sample: 1984 2015					
Included observations: 96					
Cross-sections included: 3					
Null Hypothesis: No cointegration					
Trend assumption: No deterministic intercept or trend					
User-specified lag length: 1					
Newey-West automatic bandwidth selection and Bartlett kernel					
Alternative hypothesis: common AR coefs. (within-dimension)					
				Weighted	
		Statistic	Prob.	Statistic	Prob.
Panel v-Statistic		1.662252	0.0482	1.293912	0.0978
Panel rho-Statistic		-1.449140	0.0736	-1.669227	0.0475
Panel PP-Statistic		-4.795043	0.0000	-4.878976	0.0000
Panel ADF-Statistic		-0.313898	0.3768	-0.771467	0.2202
Alternative hypothesis: individual AR coefs. (between-dimension)					
		Statistic	Prob.		
Group rho-Statistic		-1.180149	0.1190		
Group PP-Statistic		-5.480239	0.0000		
Group ADF-Statistic		-0.466322	0.3205		
Cross section specific results					
Phillips-Peron results (non-parametric)					
Cross ID	AR(1)	Variance	HAC	Bandwidth	Obs
Nigeria	0.173	1.881082	2.301288	3.00	31
SA	-0.002	2.098668	2.324702	2.00	29
KNY	-0.195	0.327783	0.304794	2.00	29
Augmented Dickey-Fuller results (parametric)					
Cross ID	AR(1)	Variance	Lag	Max lag	Obs
Nigeria	0.409	1.752460	1	--	30
SA	-0.064	1.874137	1	--	27
KNY	-0.343	0.340085	1	--	27

Source: Author's E-views computation

19. RESULT: Johansen Fisher Panel Cointegration Tests

Johansen Fisher Panel Cointegration Test				
Series: FDIR GDP MCR NLS TUNR VSTR ASI				
Sample: 1984 2015				
Included observations: 96				
Unrestricted Cointegration Rank Test (Trace and Maximum Eigenvalue)				
Hypothesized	Fisher Stat.*		Fisher Stat.*	
No. of CE(s)	(from trace test)	Prob.	(from max-eigen test)	Prob.
None	86.22	0.0000	55.56	0.0000
At most 1	42.43	0.0000	23.62	0.0006
At most 2	22.13	0.0011	21.94	0.0012
At most 3	6.763	0.3433	4.355	0.6287
At most 4	4.772	0.5733	2.902	0.8210
At most 5	5.001	0.5436	3.326	0.7670
At most 6	10.57	0.1027	10.57	0.1027
Individual cross section results				
	Trace Test		Max-Eign Test	
Cross Section	Statistics	Prob.**	Statistics	Prob.**
Hypothesis of no cointegration				
Nigeria	166.9772	0.0000	56.5796	0.0029
SA	178.6734	0.0000	81.2030	0.0000
KNY	199.2246	0.0000	61.0941	0.0007
Hypothesis of at most 1 cointegration relationship				
Nigeria	110.3976	0.0034	38.1049	0.0820
SA	97.4704	0.0379	35.1440	0.1621
KNY	138.1305	0.0000	54.8840	0.0006
Hypothesis of at most 2 cointegration relationship				
Nigeria	72.2927	0.0313	33.1045	0.0616
SA	62.3263	0.1710	25.1343	0.3760
KNY	83.2465	0.0029	47.2622	0.0007
Hypothesis of at most 3 cointegration relationship				
Nigeria	39.1882	0.2528	17.9260	0.5013
SA	37.1920	0.3385	16.8527	0.5926
KNY	35.9844	0.3971	19.4380	0.3814
Hypothesis of at most 4 cointegration relationship				
Nigeria	21.2622	0.3415	11.2706	0.6203
SA	20.3394	0.4001	11.5103	0.5964
KNY	16.5464	0.6733	11.1405	0.6333
Hypothesis of at most 5 cointegration relationship				
Nigeria	9.9915	0.2814	5.4647	0.6824
SA	8.8291	0.3814	8.4756	0.3324
KNY	5.4059	0.7643	4.2173	0.8357
Hypothesis of at most 6 cointegration relationship				
Nigeria	4.5268	0.0334	4.5268	0.0334
SA	0.3535	0.5521	0.3535	0.5521
KNY	1.1886	0.2756	1.1886	0.2756
**MacKinnon-Haug-Michelis (1999) p-values				

Source: Author’s Eviews computation