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Foreign Direct Investment and Economic Performance Indicators-empirical Evidence from Nigeria

Obiakor, Rowland. T.
Professor, Department of Economics, Banking and Finance
Babcock University, Ilishan-Remo, Ogun State, Nigeria
Chukwu, Alexander. O.
Student, Department of Economics, Banking and Finance
Babcock University, Ilishan-Remo, Ogun State, Nigeria

Abstract:
The Federal Government of Nigeria like every other developing country in the world is to improve welfare of her citizens and develop its infrastructures for the country's economic growth. However, lack of infrastructures, and inadequate national savings, occasioned by poor leadership, corruption and policy inconsistency, has greatly affected the ability of the country to achieve an all-inclusive economic growth. The study examined the impact of Foreign Direct Investment on the economic growth in Nigeria using Gross Domestic Products growth rate (GDPGR), Gross Fixed Capital Formation (GFCF) and Index of Industrial Production (IIP) as measures of economic growth, while FDI, Inflation, Exchange rate, Interest rate, Financial Deepening and Degree of Openness were used as independent variables. The study used secondary data from 1981-2016 which were extracted from the Central Bank of Nigeria Statistical Bulletin (2016), the Annual Abstract of Statistics of the National Bureau of Statistics (NBS), World Bank's Development Indicator and from Internet sources. Descriptive statistics and inferential statistics using Granger Causality and Ordinary Least Square regression methods were employed. The result of the findings revealed a negative relationship between Foreign Direct Investment and Gross Domestic Product growth rate (GDPGR), (0.1273 > 0.05); even though FDI has a no significant impact on Nigerian's economic growth at 5% significance level. It was also noted from the study that FDI has significant positive relationship with Gross Fixed Capital Formation Capital (GFCF), (0.0003 < 0.05). The study further showed that FDI has a significant positive relationship with Index of Industrial Production (IIP), (0.0003 < 0.05). The study concluded that FDI has positive impact on the Nigerian economy which is needed for the nation's economic growth. The study recommends that Federal Government of Nigeria should put in policies that will liberalize the economy and attracts foreign direct investments. It is also recommended that government at all levels in Nigeria, should aggressively invest in infrastructural development, which helps to reduce the cost of doing business, while the Central Bank of Nigeria should allow the foreign exchange market to be driven by the forces of demand and supply, as a way of boosting foreign investors' confidence in the economy.

Keywords: *Foreign direct investment, gross domestic products, gross fixed capital formation, index of industrial production and economic growth, investment*

1. Introduction

1.1. Background to the Study

Major problem in most African countries is inadequate resources to finance long-term investment. Investment plays an important role in economic growth of any country through increase in productivity levels. According to Sichei and Kinyondo (2012), the inability of African countries to attract foreign direct investment is troubling, because it presents a potential solution to the challenges of the continent's growth and development. In recent years, fiscal and monetary authorities in the developing countries have come to believe that foreign direct investment is needed to boost the economic growth of their respective economies. Political leaders realized that foreign direct investment can create employment, increase technological development in the host country and improve the economic condition of the country in general (Adewunmi, 2006). The role of foreign direct investment is quite critical in Africa given the fact that poverty levels are generally high. This is because domestic savings and income remain extremely low as income is mainly channelled to consumption expenditure (Sichei & Kinyondo, 2012; Kudaisi, 2014).

Foreign direct investment provides a major source of capital which brings about up-to-date technology. The significance of foreign capital for the provision of infrastructure development for both macroeconomic and microeconomic activities of the less developed countries such as Nigeria cannot be overemphasized, in view of the level of infrastructural deficient in the Sub Sahara Africa particularly in Nigeria (Ebekozien, Ugochukwu & Okoye, 2015). Considering the poverty level in the continent, raising the required capital to address infrastructural deficient will be difficult to generate through domestic savings. Aside the challenges of inadequate domestic savings, it will still be difficult to import the necessary

technology from abroad, since the transfer of technology to firms with no previous experience of using it is difficult, risky, and expensive. It creates many externalities in the form of benefits available to the whole economy which most companies cannot appropriate as part of the firm's own income. These include transfers of general knowledge and specific technologies in production and distribution, as well as industrial upgrading, work experience for the labour force and the introduction of modern management and accounting methods (Antwi, Mills, Mills & Zhao, 2013).

In order to increase the country's share of foreign direct investment inflows, attracting foreign investment and liberalizing economies have become important strategic policy components for Sub-Sahara Africa countries. Various countries in Africa have officially encouraged foreign direct investment and have undertaken significant steps to attract foreign direct investment by adopting foreign direct investment-specific regulatory framework to support their investment related objectives (Kudaisi, 2014), and provides substantial incentives for foreign investments (Kornecki, 2008). They have eased restrictions on foreign direct investment, strengthened macro stability, privatized state-owned enterprises, and instituted domestic financial reforms, capital account liberalization and granted tax incentives and subsidies (Antwi *et al*, 2013).

Nigerian government on her part has over the years, especially with the advent of democracy in the country, offered attractive investment opportunities for foreign companies and has adopted a number of policies towards attracting foreign direct investment (Umah, 2007). Such policies include the privatization and commercialization of government owned enterprises, as well as breaking of government monopolies of some sectors of the economic (telecommunication sector) among others. However, factors like inadequate infrastructures, policy inconsistencies, poor financial system, corruption, security challenges, and political instability have continued to hamper the growth of the foreign direct investment in the country (Oba & Onuoha, 2013).

This lack of investible funds is a big setback and hindrance to economic growth and development (Adewunmi, 2006). The efforts of African governments and Nigerian in the past decades with respect to reducing poverty and attracting foreign direct investment have been disappointing at best (United Nation, 2005). Africa, as a region, has not benefited from the foreign direct investment boom since the volume of foreign direct investment inflows to the continent is not only low as a share of global foreign direct investment, but is also on a downward trend (Sichei & Kinyondo, 2012). However, given the importance attached to foreign direct investment, Africa countries must therefore learn how to attract greater volumes of these important potential resources (Kudaisi, 2014). The major target of foreign direct investment is to boost economic growth. According to Aigbokhan (1995), economic growth means an increase in the average rate of output produce per person usually measured on a per annum basis. It is also the rate of change in national output or income in a given period. Economic growth is the increase of per capital gross domestic product (GDP) or other measures of aggregate income. It is often measured as the rate of change in real GDP. Economic growth refers only to the quantity of goods and services produced in a given period. Godwin (2007) defines economic growth as an increase in real gross domestic product (GDP). That is, gross domestic product adjusted for inflation. The growth can either be positive or negative. Negative growth can be referred to by saying that the economy is shrinking or in recession. This is characterized with economic recession and economic depression as witnessed in 2016 in Nigeria, when the country's GDP recorded negative growth. Ullah and Rauf (2013) noted that whenever there is increase in real GDP of a country, it will boost the overall output and it is called positive economic growth. The economic growth helps to increase the income of the society, reduces unemployment rate especially where there is inclusive growth and assist in delivering public services as the resources are appropriately applied. Apart from GDP, economic activities can be ascertained by fluctuations in the gross fixed capital formation of a country. The gross fixed capital formation is a national expenditure in a given time period on physical productive assets, e.g., buildings, civil engineering works, machinery, equipment and vehicles. This indicator also plays a vital role in the overall economic activity of the country.

An efficient financial system is one of the foundations for building sustained economic growth and for sustaining an open and vibrant economic system. In recent years, the Nigerian economy has been characterized by trends towards increased liberalization, greater openness in trade and higher degree of financial integration (Adelakun, 2010). It is widely believed that foreign direct investment directly impacts economic growth due to the possibility of direct transfer of multinational enterprises (MNEs)'s technology and organizational knowledge to its affiliate in host economies, upgrading of intangible assets such as management and marketing know-how of the local affiliates. Foreign direct investment is significant for economic growth in developing countries because it affects the economic growth by stimulating domestic investment, capital formation expansion and the enhancement of technology transfer in the host countries (Falki, 2009; Ogunleye, 2014). Foreign direct investment helps with the investment capital needed which brings about employment, technology, and managerial skills and finally accelerate growth and development (Asiedu, 2002; Asiedu, 2003).

Foreign direct investment has become an important source of private external finance for many developing countries including Nigeria. Thus, the crux of the work is to evaluate empirically the potential positive effects of FDI on economic growth in Nigeria so as to be certain that steps taking to attract FDI are worthwhile.

1.2. Statement of the Problem

Recent trends in the global investment world have it that a country like Nigeria with large population with emerging huge market potentials will continue to be a potential destination of foreign direct investment if the operating business environment is conducive for investors. The foreign direct investment component of the global investable funds will have significant positive impacts on the economy (United Nation, 2002; Sichei & Kinyondo, 2012; Maku, 2015). The impact will cause domestic investment to exceed domestic savings through additional source of financial resources,

attraction of technological know-how, experience, managerial and marketing skills, and international best practices of doing business, benefits arising from increased competition (Sukar, Ahmed & Hassan, 2007).

However, there are controversies over the role and impact of foreign direct investment on economic growth. There are concerns that foreign direct investment will crowd out domestic investment. This effect will take place when domestic enterprises abandon their investment plans in order to avoid competing with more efficient foreign companies, and the released resources do not go to other activities in which local enterprises have stronger competitive advantages (United Nation, 1999). This phenomenon occurs through backward and forward linkages, knowledge-spill over, and adverse multiplier effects (Gallagher & Zarksy, 2007). Thus, instead of Foreign direct investment serving as an important engine for growth, it will rather have negative effect on the economy (Maku 2015). FDI affect the gross domestic product of the host country by positively balancing trade (United Nation, 2002). Though it enhances the potentials of corporate revenue and improving the fiscal situation, it may have a deleterious effect on the economy (Sukar, Ahmed & Hassan, 2007). Hence to address this gap in knowledge and put an end to this lingering doubt, the question is asked what impact does foreign direct investment really has on gross domestic product growth in Nigeria? In Nigeria, there seems to be an upward trend in both foreign direct investment and gross domestic product (GDP) for some years especially since the advent of democracy in 1999 coupled with increase in crude oil prices prior to 2008/2009 world economic crisis. Yet despite the upward trends observed during the period studies conducted revealed mixed evidence on the effects of foreign direct investment on economic growth with respect to gross fixed capital formation. In addition, studies in Nigeria are not elaborate on the influence of foreign direct investment on gross fixed capital formation as an agent of economic growth (Otanga, Mogwambo, Patrick, Momanyi, Robert & Nyatete, 2015). In order to address this knowledge gap, this work will examine the effect of FDI on gross fixed capital formation in Nigeria. In all, an empirical challenge arises on the overall contribution of FDI to economic growth in Nigeria, as some researchers are of the opinion that foreign direct investment has a negative impact on the economic growth of the host country on the basis that transnational corporations can provide their foreign affiliates with insufficient or wrong kind of technological capabilities (Ayanwale, 2007). Some other scholar like Michalowski (2012) pointed out that the outflows of earnings from foreign direct investment may lead to the deterioration in the balance of payments of a host country. Corporate income tax revenues in the host country were also singled out as one of the factors that may be adversely affected by transfer pricing or other strategies of transnational corporations to minimize taxes (Gropp & Kostial, 2000). These effects according to some researchers will adversely affect the overall contribution of FDI to economic growth. It becomes pertinent then to investigate the overall effect FDI would have on economic growth to forestall spending hard earn resources in areas where it has not significantly contributed to economic growth.

1.3. Objective of the Study

The main objective of this study is to establish the impact of foreign direct investment on economic growth in Nigeria. The specific objectives are to:

- Determine the impact of foreign direct investment on gross domestic product growth rate in Nigeria;
- Show the effect of foreign direct investment on gross fixed capital formation in Nigeria and
- Identify the contribution of foreign direct investment on index to industrial production in Nigeria.

1.4. Research Questions

The following research questions were answered in this study:

- What is the impact of Foreign Direct Investment on Gross Domestic Product growth rate in Nigeria?
- What is the effect of Foreign Direct Investment on Gross Fixed Capital Formation in Nigeria?
- What is the contribution of Foreign Direct Investment to Index of Industrial Production in Nigeria?

1.5. Hypotheses

The following research hypotheses were tested at 0.05 level of significance.

- $H_0$1: Foreign Direct Investment has no significant impact on Gross Domestic Product growth rate in Nigeria.
- $H_0$2: Foreign Direct Investment has no significant effect on Gross Fixed Capital Formation in Nigeria.
- $H_0$3: Foreign Direct Investment has no significant contribution to Index of Industrial Product in Nigeria.

1.6. Scope of the Study

This study covered the period from 1981 to 2016 using yearly data. The period selected was considered adequate to establish the impact of Foreign Direct Investment on Nigeria's economic growth. The study used secondary data obtained from the Annual Abstract of Statistics of the Nigerian Bureau of Statistics (NBS), Statistical Bulletins of Central Bank of Nigeria, World Bank indicator and internet sources.

1.7. Significance of the Study

There have been conflicting findings by researchers on the impact of foreign direct investment on the economic growth and development of the host country, while some of the findings claimed there was negative correlation between foreign direct investment and the economy of the host country, others were of opinion that foreign direct investment aids the economic growth of the host country. In view of lack of consensus by various researchers on the impact of foreign direct investment on the economic growth of the host country, this research is undertaken in order to ascertain the contribution of foreign direct investment to economic growth in Nigeria. The outcome of the research would help to

determine whether the call for more foreign direct investment is truly justified in the country. Despite the benefit of foreign direct investment mentioned by various researchers, few researchers still believe that the emphasis place on foreign direct investment does not result to the "assumed benefit". There is need to ascertain the impact of foreign direct investment on economic growth in Nigeria so as to justify the call for foreign investors in the country. Also, for policy making, the expected result outcome would serve as useful guide for future policies as it relates to stimulating growth within the economy. The outcome of the study would further serve as a reservoir of knowledge for other related studies in academic research in the country and across the globe.

1.8. Operationalization of Variables

The data analysis was done using the appropriate statistical tools. The following models were used for this study:

GDPGR = f (FDI, INF,EXR,INT,DO,FD)_____ (1)
GFCF = f (FDI, INF,EXR,INT,DO,FD)_____(2)
IIP = f (FDI,INF,EXR,INT,DO,FD)_____(3)

Equation 1

$$(GDPGR_t) = \alpha + \sum_{i=1}^{N1} \beta_i (logFDI_{t-i}) + \sum_{t=1}^{N2} \beta_2 (INF_{t-i}) + \sum_{t=1}^{N3} \beta_3 (EXR_{t-i}) + \sum_{t=1}^{N4} \beta_4 (INT_{t-i}) + \sum_{t=1}^{N5} \beta_5 (DO_{t-i}) + \sum_{t=1}^{N6} \beta_6 (FD_{t-i}) + \varepsilon_t$$

Equation 2

$$Log(GFCF_t) = \alpha + \sum_{i=1}^{N1} \beta_i (logFDI_{t-i}) + \sum_{t=1}^{N2} \beta_2 (INF_{t-i}) + \sum_{t=1}^{N3} \beta_3 (EXR_{t-i}) + \sum_{t=1}^{N4} \beta_4 (INT_{t-i}) + \sum_{t=1}^{N5} \beta_5 (DO_{t-i}) + \sum_{t=1}^{N6} \beta_6 (FD_{t-i}) + \varepsilon_t$$

Equation 3

$$(IIP_t) = \alpha + \sum_{i=1}^{N1} \beta_i (logFDI_{t-i}) + \sum_{t=1}^{N2} \beta_2 (INF_{t-i}) + \sum_{t=1}^{N3} \beta_3 (EXR_{t-i}) + \sum_{t=1}^{N4} \beta_4 (INT_{t-i}) + \sum_{t=1}^{N5} \beta_5 (DO_{t-i}) + \sum_{t=1}^{N6} \beta_6 (FD_{t-i}) + \varepsilon_t$$

Where:
GDPGR = Gross Domestic Product growth rate
GFCF= Gross Fixed Capital Formation
IIP = Index of Industrial Production
INF = Inflation Rate
FDI = Foreign Direct Investment
EXR = Exchange Rate
INT= Interest Rate
DO= Degree of Openness (Export plus import/GDP)
FD= Financial Deepening (Credit to private sector/GDP))
βi (t = 1,2,3, 4, 5, 6) are the coefficients of the independent variable
ϵt= Error Term

1.9. Operational Definition of Terms

- Economic growth - Economic growth is an increase in the capacity of an economy to produce goods and services, compared from one period of time.
- Foreign Direct Investment (FDI): A foreign direct investment (FDI) is a controlling ownership in a business enterprise by foreigners either wholly or partly.
- Gross Domestic Product (GDP): Gross Domestic Products refers to the market value of all final goods and services produced within a country in a given period.
- Investment – is the purchase of a financial product or other item of value with an expectation of favourable future return.

2. Review of Literature

2.1. Introduction

Foreign direct investment is an integral part of an open and effective international economic system and a major catalyst to economic growth and development (OECD, 2002). Foreign direct investment is an important vehicle for technology transfer from developed countries to developing countries. It also stimulates domestic investment and facilitates improvements in human capital and institutions in the host countries (Miraskari, Masouleh, & Alavi, 2014). Foreign direct investment has been lauded as the primary modality for stimulating growth and consequently for effecting positive social changes in developing economies (Dunning, 2002).

2.2. Conceptual Review

2.2.1. Investment

There are different forms, types and approaches of Investment. It may involve putting money into bonds, treasury bills, notes or common stock. It also includes investment in mortgages, cattle ranching or theatre performance. Investment involves setting up enterprises, building infrastructures among others. Diversity and challenges characterize investment practices (Obi, 2012). Despite whichever investment options one ventured into, the fundamental objective of any

investment is to make gains and increase the wealth for stakeholders. An investment can be defined as committing the money and other resources you have at the present into businesses activities or assets with the expectation of deriving greater resources from them in the future. An investment arises as a result of capital accumulation, which in turn depends upon savings (Ndulu, 1990 cited in Sunday, 2012). Investment generally, entails the commitment of a lump sum now for future streams of income flow and or for capital appreciation. Simply puts in a different context, it is an acquisition of an asset by an individual or institution with a view of earning returns, either through its income or capital gains (Aluko, Nuhu, & Saibu, 2008).

2.2.2. Types of Investment

According to investopedia.com, investment can be classified into the following:

2.2.2.1. Ownership Investments

Ownership investments are the most risky and volatile aspect of investment, even though too, it is highly profitable class of investment if successfully managed. Some of the examples of ownership investments include the following:

2.2.2.2. Stocks

Stocks are certificates that an individual owns a portion of a company. More broadly speaking, all traded securities, from futures to currency swaps, are ownership investments even though all an individual own is a contract. If one own shares in Zenith Bank Plc and Zenith posts a record profit, other investors are going to want Zenith shares too. Their demand for Zenith shares will drive the share price up, thereby increasing the profit for holders of such shares, if he or she decides to divest from bank's stock.

2.2.2.3. Business

The money put into starting and running a business is an investment. Entrepreneurship is one of the hardest investments to make, because it requires more than just money. Consequently, it is also an ownership investment with extremely large potential returns. By creating a product or service and selling it to people who want it, entrepreneurs can make huge personal fortunes.

2.2.2.4. Real Estate

Houses, apartments or other dwellings that can be rented out or repair and resell are investments. The personal dwelling is a different matter because it is filling a basic need. The personal dwelling fills the need for shelter and, although it may appreciate over time, it shouldn't be purchased with an expectation of profit.

2.2.2.5. Lending Investments

Lending investments makes it possible for an investor to be the bank. They tend to be lower risk than ownership investments and returns less as well. They include the following:

2.2.2.6. Savings and other Deposit Accounts

Regular savings account holder can be considered as an investor. The savings are deposited in the bank, where it accrues interest on daily basis even though the depositor's accounts are credited on monthly basis by the bank. The bank in turn lends it out in the form of loans after meeting other regulatory requirements as stipulated from time to time by the Central Bank of Nigeria (CBN) and other financial services regulators like Nigerian Deposit Insurance Corporation (NDIC). The returns on such investment are low when compared to other forms of investment even though the risk is low while other forms of investment with higher returns are associated with higher risks, which conforms with the general norm in business, that the higher the risk, the higher the returns and vice versa.

2.2.2.7. Bonds

Bond is a universal term for a wide variety of investments from Federal and State Governments' debt instruments to corporate junk bonds and international debt instruments. It is usually long term in nature. The risks and returns vary widely between the different types of bonds, but overall, lending investments pose a lower risk and provide a lower return than ownership investments especially government bonds.

2.2.2.8. Cash Equivalents

These are investments that are as good as cash, which means they are easy to convert back into cash.

2.2.2.9. Money Market Funds

With money market funds, the return is very small when compared to other forms of investments though some of them are risk free investments like treasury bills. Although money market funds have "broken the buck" in recent memory, it is rare enough to be considered a black swan event. Money market funds are also more liquid than other investments, meaning checks are issued out of money market accounts just as a checking account.

2.2.2.10. Foreign Direct Investment (FDI)

One of the economic problems of developing countries is that they do not have enough national savings to finance its investments needs. Developing nations are always in need of foreign capital in forms of both direct and indirect investments (Demirhan & Masca, 2008). Foreign direct investment appeared to be one of the easiest ways to get foreign capital without undertaking any risks associated with debt instruments. It has become an attractive alternative to bank loans as a source of capital inflows.

Foreign Direct Investment (FDI) is defined as when a company from one country known as home country makes some physical investment in other country known as host country. It is a process in which one country (home country) acquires the ownership of the assets of the firm in the other country (host country) so that they can have a control over the production, manufacturing, distribution and all the other activities (Wajid & Zhang, 2017). According the World Bank the foreigner investor must own at least 10 percent or more of the ordinary shares in the company or enterprise operating in an economy other than that of investor (Investee Company). It can be done either by setting up subsidiary company in host country, or acquiring the shares or through mergers and acquisitions. FDI refers to the flow of capital between countries. United Nations Conference for Trade and Development (UNCTAD) defines FDI as, an investment made in such enterprises operating beyond the borders of the economy of the investor in order to gain long lasting interest. FDI is associated with cross-border mergers and acquisitions which can be; Horizontal-where the firm are at same stage of production; Vertical-where firms are at different stages of production; and Conglomerate-where firms are in different industries. In developing countries FDI has remained the largest form of capital flow over last couple of decades for supporting portfolio equity investment, private loans, and official assistance (Wajid & Zhang, 2017).

Different studies (Dunning, 1993; Sichei & Kinyondo, 2012) describe three main types of foreign direct investment based on the motive behind the investment from the perspective of the investing firm. The first type of foreign direct investment is called market-seeking foreign direct investment, whose aim is to serve local and regional markets. It is also called horizontal foreign direct investment, as it involves replication of production facilities in the host country. Tariff-jumping or export-substituting foreign direct investment is a variant of this type of foreign direct investment. Since the reason for horizontal foreign direct investment is to better serve a local market by local production, market size and market growth of the host economy play important roles. Obstacles to accessing local markets, such as tariffs and transport costs, also encourage this type of foreign direct investment.

The second type of foreign direct investment according to Dunning (1993) is called resource-seeking: when firms invest abroad in order to obtain resources not available in the home country, such as natural resources, raw materials, or low-cost labour. Particularly in the manufacturing sector, when multinationals directly invest in order to export, factor-cost considerations become important. In contrast to horizontal foreign direct investment, vertical or export-oriented foreign direct investment involves relocating parts of the production chain to the host country. Availability of low-cost labour is a prime driver for export-oriented foreign direct investment. Naturally, foreign direct investment in the resource sector, such as oil and natural gas, is attracted to countries with copious natural endowments.

The third type of foreign direct investment called efficiency-seeking, takes place when the firm can gain from the common governance of geographically dispersed activities in the presence of economies of scale and scope.

2.2.3. Overview of Foreign Direct Investment in Nigeria (FDI)

The impact of economic freedom has been widely acknowledged among growth analysts. A country which enjoys more economic freedom tends to attract more foreign direct investment inflows and grow faster than a country that is without the same freedom (Ajide, 2014). Economic freedom, according to Ajide, (2014) has been defined as the absence of government coercion or constraint on the production, distribution, or consumption of goods and services beyond the extent necessary for citizens to protect and maintain liberty itself. Empirical studies have shown that countries vary in the ways and manners by which economic freedoms are exercised and implemented. Observably, in the developed nations, economic freedom is undeniably a public good as can be observed from unfettered enjoyment of it among and, or between the various economic agents. This is lacking and even if it exists is scarcely enjoyed by various economic agents from the developing countries, within Sub-Saharan African region in particular. This is because the region is largely seen as operating on the negative and extreme end of economic freedom continuum thus raising pertinent issues about economic issues in the region.

The overwhelming evidence of positive impact of international trade on economic growth cannot be over emphasized (Edoumiekumo & Opukri, 2013). Most economists especially development and international economists have argued in favor of international trade as it relates to global and domestic economic growth and development. They believed that international trade leads to specialization based on the law of comparative advantage, increase in resource productivity, large total output, creation of employment, generation of income and relaxation of foreign exchange restraints (Nnadozie, 2003).

Successive Nigerian governments especially since the return of democracy in 1999 have recognized the vital role of foreign direct investment in enhancing economic growth and development. In view of that, various strategic policies and regulatory frameworks have been put in place with a view of creating incentives for promotion of inflow of foreign direct investment into the country (Adeleke, Olowe & Fasesin, 2014). According to Lall, (2002), privatization was also adopted, among other measures, to encourage foreign investments in Nigeria including creation of Free Trade Zones (FTZ) across the country. The privatization involved transfer of management of state-owned enterprises (manufacturing, agricultural production, public utility services such as telecommunication, transportation, electricity and water supply) to the private companies either through Public Private Partnership (PPP) or completely or partly under the ownership and management

of private individuals or companies. Shiro (2009), pointed that since the enthronement of democracy in 1999, the government of Nigeria has taken a number of measures necessary to encourage and woo foreign investors into Nigeria. These measures, he noted, includes the repeal of laws that are inimical to foreign investment growth, enactment of investment laws, various overseas trips for image laundry by several Presidents and other top Federal and State Government officials among others.

2.2.4. Factors affecting Foreign Direct Investment in Nigeria

There are numerous challenges hindering the country from attracting foreign investors. The benefits of foreign direct investment to the economic growth of the developing countries had made it imperative for every nation to make her territory attractive ground for foreign investors. Some inherent factors in Sub Sahara Africa countries (like Nigeria), which may actually affect the smooth inflow of foreign direct investment, are as follows:

2.2.4.1. Political Instability

One of the major characteristics of African nations is incessant changing of government, which usually come up as a result of military intervention in government, ethnic crisis, and frequent occurrence of war. Rogoff and Reinhart (2003) in their study concluded that there is a statistically significant negative correlation between foreign direct investment and conflicts in Africa, which emphasizes on the fact that intervention of foreign business in the country has no relationship with the causes of war in the region. Political instability will surely hinder the inflow of foreign direct investment in Nigeria

2.2.4.2. Frequent Changes in Government Policies and Lack of Policy Transparency

The fact that political instability is one of the inherent features in Nigeria which heightened insecurity. In Nigeria, there has been smooth transition of power from one government to the other since return to democracy 1999; however, such smooth transition of power has not impacted positively on government policies even when the transition is within the same political party. This is because of lack of defined political cultures and philosophy in the country. Party manifestos are not being adhered to and as a result of which the manifestos are hardly implemented by politicians. The lack of the political culture and failure of party supremacy leads to incessant change of government policies because each new government comes up with her own policies and programmes which most often may be at varies with that of the predecessor. Lack of consistency in policy formulation and implementation by successive government makes it difficult for investors to plan and make informed investment decisions about the country. For instance, frequent change of foreign exchange policies, increment in transactions cost, tax, rules and regulations would not be easily measure by the foreign investors and this will make it risky for the investors to invest.

2.2.4.3. Unstable Macro-Economic Environment

The presence of stable macroeconomic environment is one of the basic determinants of foreign direct investment inflow in any country and when macroeconomic variables have been destroyed or not put in place by any nation; it affects the inflow of foreign direct investment. None harmonization of government fiscal and monetary policy objectives makes it difficult of foreign investors to make investment decisions. The presence of inflation, Unrealistic budget deficit, unstable currency, lack of efficient and transparent foreign exchange policy cum market etc, in Nigeria makes the country less attractive to foreign investors. According to Onyeiwu and Shrestha (2004); Ogunleye, (2014) countries with high inflation tend to attract less foreign direct investment.

2.2.4.4. Poor Infrastructures

African countries in general lack proper and adequate infrastructure like telecommunication, transportation, reliable power supply, etc to stimulate the interest of foreign investors in the region. Asiedu (2002) provided evidence that good infrastructure has a positive impact on foreign direct investment flows to Africa. However, on contrary Onyeiwu and Shrestha (2004) find no evidence that infrastructure has any impact on FDI flows to Africa. The most important ingredient for business environment to attract foreign investment is availability, reliability, and cost of infrastructure facilities (power, telecommunication, transportation and supply of water etc). Those countries with poor infrastructure ultimately face increasing transaction cost and limited access to local and international markets which is considered serious hurdle and discourages inflow of factor for FDI into such countries. In most developing countries, infrastructure is not well developed so they are unable to attract sufficient amount of FDI (Wajid & Zhang, 2017).

2.2.4.5. Market Size and GDP Growth-rate

Some of the major factors that make Nigeria to be termed developing country are low annual GDP rate, per capital income, life expectancy ratio with very high mortality ratio when compared with other countries in the world. Even with the growing annual GDP rate witnessed between 2003 and 2013, it was not inclusive growth as the rate of unemployment was also high during the same period. The country's huge population creates a big market size which ordinarily should facilitate inflow of foreign direct investment into the country but the high poverty rate with its resultant small middle-class income group constitutes a hindrance to the inflow of foreign direct investment. Eibadawi and Mwega (1997) opined that economic growth is an important determinant of foreign direct investment flows to the region.

2.2.4.6. Environmental Problem

It is a duty of foreign investors to identify nations with better environmental and sustainable factors and which could enhance their investments. Climatic problem as a result of several harms done to the African environment makes the continent very risky for foreign investments. According to Basu and Srinivasan (2002), some domestic investment policies, for example, on profit repatriation as well as on entry into some sectors of the economy were not conducive to the attraction of foreign direct investment.

2.2.4.7. Corruption and Maladministration

Corruption is embedded in Nigerian governments and governments of most Sub Sahara Africa countries. There are no strong laws designed to eradicate corruption and even where such exist, African leaders hardly implement and enforce it. Due to successive governments' failures to tackle corruption, it creates issues such as insecurity, poor infrastructure, high poverty rate and other social vices which are detrimental for foreign investors to invest in the region. Ogundele and Opeifa (2004) described corruption as consisting of several elements including deceit, trickery, cheating, intentional deception, dishonesty and the conscious premeditated action of a person or group of persons to alter the facts of a matter or transaction for selfish personal gains. Wei and Shleifer (2000) found that corruption affects negatively both the volume and the composition of capital inflows into emerging markets which substantially reduces the inflow of foreign direct investment into the region.

2.2.5. Economic Growth

Measuring the strength of the economy, however, can be difficult as it depends on surveys and administrative source data that are necessarily imperfect and incomplete. The level of income in an economy at any point in time represents the accumulated growth in incomes over time. Therefore, identifying what produces higher incomes is really investigating the determinants of economic growth. The total output of the economy can be measured in two distinct ways—Gross Domestic Product (GDP), which adds consumptions, investments, government spending, and net exports; and Gross Domestic Income (GDI), which adds labour compensation, business profits, and other sources of income. In theory, these two measures of output should be identical; however, they differ in practice because of measurement error (CEA, 2015). According to Aigbokhan (1995), economic growth means an increase in the average rate of output produce per person usually measured on a per annum basis. It is also the rate of change in national output or income in a given period. Economic growth is the increase of per capital gross domestic product (GDP) or other measures of aggregate income. It is often measured as the rate of change in real GDP. Economic growth refers only to the quantity of goods and services produced in a given period.

Godwin (2007) defined economic growth as an increase in real gross domestic product (GDP). That is, gross domestic product adjusted for inflation. The growth can either be positive or negative. Negative growth can be referred to by saying that the economy is shrinking or in recession. This is characterized with economic recession and economic depression as witnessed in 2016 in Nigeria. Ullah and Rauf (2013) noted that whenever there is increase in real GDP of a country it will boosts up the overall output and it is called positive economic growth. The economic growth helps to increase the incomes of the society, reduces unemployment rate especially where there is inclusive growth and assist in delivering public services as the resources are appropriately applied.

An efficient financial system is one of the foundations for building sustained economic growth and for sustaining an open and vibrant economic system. In recent years, the Nigerian economy has been characterized by trends towards increased liberalization, greater openness in trade and higher degree of financial integration (Adelakun, 2010). This is evident through the banking consolidation in 2005 by the then Governor of CBN, Prof Charles Soludo and the introduction of sound risk management framework and cashless policy by the immediate past CBN Governor, Sanusi coupled with the enactment and signing into law the Freedom of Information Act by the immediate past federal government in 2014.

On factors that impact economic growth, Udjo *et al*. (2000) identified infrastructure as having both direct and indirect impact on the growth of an economy. Infrastructure is said to add to economic growth and development by raising efficiency and providing facilities which enhance the quality of life. Infrastructure as defined by Akinyosoye (2010) is the unpaid factor of production which tends to raise productivity of other factors while serving as intermediate inputs to production. The current level of infrastructure deficit in Nigeria has been identified by Sanusi (2012) as the major constraint towards achieving the nation's vision of becoming one of the largest twenty economies in the world. Macroeconomic theory has identified various factors that influence the growth of a country from the classical, neoclassical and the new growth theories. Antwi, Mill and Zhao (2013) asserted that these factors include natural resources, investment, human capital, innovation, technology, economic policies, governmental factors, foreign aid, trade openness, institutional framework, foreign direct investment, political factors, socio-cultural factors, geography, demography and many others.

2.2.6. Economic Growth Indicator

The economic indicators considered are: Real Gross Domestic product (GDP), Gross National Product (GNP), Gross fixed capital formation, National debt, the balance of trade, external debt, exchange rate, credit rating, trade openness and distribution of wealth. They are discussed below:

2.2.6.1. Real GDP (Gross Domestic Product)

The real GDP is the market value of all goods and services produced in a nation during a specific period of time usually measured in annual basis. It is labeled "real" because each year's data is adjusted to account for changes in year-to-year prices. The real GDP is a comprehensive way to gauge the health and well-being of an economy. Gross domestic product is a measure of economic activity in a country in a given period. It is calculated by adding the total value of a country's annual output of goods and services. Gross Domestic Product (GDP) is one of the most important variables in analysis of economic growth.

2.2.6.2. National Debt

National debt is the total outstanding borrowing of a country's government (usually including Federal, States and local government). It is often described as a burden, although public debt may have economic benefits. Certainly, debt incurred by one generation may become a heavy burden for future generations, especially if the money borrowed is not invested wisely. The national debt is a total of all the money ever raised by a government that is yet to be paid off; this is very different from an annual public-sector budget deficit.

The balance of trade (or net exports, sometimes symbolized as NX) is the difference between the monetary value of exports and imports of output in an economy over a certain period. It is the relationship between a country's total imports of goods and services and her exports. A positive or favorable balance of trade is known as a trade surplus, where the nation exports more than imported; a negative or unfavorable balance is referred to as a trade deficit or, informally, a trade gap.

Measuring the balance of trade can be problematic because of problems associated with recording and collection of data. As an illustration of this problem, when official data for the entire world's countries are added up, exports exceed imports by a few percent; it appears the world is running a positive balance of trade with itself. This cannot be true, because all transactions involve an equal credit or debit in the account of each nation. The discrepancy is widely believed to be explained by transactions intended to launder money or evade taxes, smuggling and other visibility problems. However, especially for developed countries, accuracy is likely to occur.

2.2.6.3. Credit Rating

A credit rating estimates the credit worthiness of an individual, corporation, or even a country. It is an evaluation made by credit bureaus of a borrower's overall credit history. A credit rating is also known as an evaluation of a potential borrower's ability to repay debt, prepared by a credit bureau at the request of the lender. Credit ratings are calculated from financial history and current assets and liabilities of the borrower or the person being assessed. Typically, a credit rating tells a lender or investor the probability of the subject being able to pay back a loan. However, in recent years, credit ratings have also been used to adjust insurance premiums, determine employment eligibility, and establish the amount of a utility or leasing deposit. A poor credit rating indicates a high risk of defaulting on a loan, and thus leads to high interest rates or the refusal of a loan by the creditor.

2.2.6.4. Degree of Openness

According European Central Bank (2014), degree of openness measures the extent to which an economy is be influenced by trade with other nations. It is calculated as a sum of total imports and exports to gross domestic products. Degree of openness is also known as Impex rate. Degree of openness shows how non- domestic transactions affect the market size and growth within an economy. It is a measure of economic policies that either restrict or invite trade between countries. It increases the size of the market, allows economies to better capture the benefits from increasing returns to scale and exploit economies of specialization as well as law of comparative advantages. Also, trade openness creates incentives for governments to adopt less deforming policies and more disciplined types of macroeconomic management through the pressures of international competitions and institutions (Adelowokan & Maku, 2013). Trade openness generates a greater importance for competitive institutions of governance, resulting in enhanced long-run economic growth (Wacziarg, 2001). Increased trade openness can result in magnified gains owing to large knowledge spill-over, greater level of competition, product variety and technology transfer. Higher exports increase real output while higher imports mitigate production cost. As a result, it is commonly accepted that a high degree of trade openness is a growth enhancing policy tool (Vasiliki Pigka-Balanika, 2014).

2.2.6.5. Wealth Distribution

The distribution of wealth is a comparison of the wealth of various members or groups in a society. It differs from the distribution of income in that it looks at the distribution of ownership of the assets in a society, rather than the current income of members of that society.

Wealth is a person's net worth, expressed as: Wealth = assets − liabilities

The word wealth is often confused with income. These two terms describe different but related things. Wealth consists of those items of economic value that an individual owns, while income is an inflow of items of economic value.

2.2.6.6. External Debt

External debt refers to the resources of money in use in a country that is not generated internally and does not in any way come from local citizens whether corporate or individual of the country. The World Bank (1998) as stated in Oke and Suleiman (2012) described external debt as the amount of money at any given time disbursed and outstanding

contractual liabilities of residents to pay interest, with or without principal. External debt is a major source of public receipts and financing capital accumulation in any economy. It is a medium used by countries try to bridge their financial budget deficits and carry out economic projects that can increase the standard of living of the citizenry and promote sustainable growth and development (Utomi, 2014).

2.2.6.7. Exchange Rate

It is the price of foreign currency in terms of a home currency. The exchange rate is the rate at which one currency is exchanged for another. It is the price of one currency in terms of another currency (Jhingan, 2005 cited in Udoye, 2009). It is the charge for exchanging currency of one country for the currency of another. A higher exchange rate would attract low FDI, while a lower exchange rate indicates that an economy is doing well which may lead to attracting FDI which in turn makes a country have a better RGDP. It determines the relative prices of domestic and foreign goods, as well as the strength of external sector participation in the international trade. Appreciation of exchange rate depends on increased exports and reduced import (Aliyu, 2011). Exchange rate helps to connect the price systems of two different countries by making it possible for international trade and also affect the volume of imports and exports, as well as country's balance of payments position (Adeniran, Yusuf & Adeyemi, 2014). The high rate of inflation in 2016 in Nigeria was largely caused by worsen exchange rate of the country's currency (Naira) to United States dollar due to fall in price of crude oil in international market. This is because crude oil is major source of foreign exchange earner for the country.

2.2.6.8. Inflation

Inflation refers to a sustained increase in the average price level and is measured by the consumer price index (Abbas *et al.* 2011). Inflation is defined as a generalized increase in the level of price sustained over a long period in an economy (lipsey1995). It is a rise in the general level of prices of goods and services in an economy over a period. Inflation has positive as well as negative effects on the economy and investment is mostly affected by it. Increase in capital inflow raises the local currency value which in turn decreases export and increases inflation. The relationship between inflation and foreign capital inflow has been viewed in different ways by different scholars. Kim and Yang (2008) suggested that capital inflows cause asset prices to appreciate. According to Agcaoili (2011) stated that domestic economy of the emerging markets is capable of absorbing the strong inflow without resulting inflation. Therefore, it is important to evaluate whether there is a significant inflationary impact of capital inflows from FDI (Nazir *et al.* 2012).

2.2.6.9. Gross Fixed Capital Formation

Gross capital formation is the total investment or addition to the physical stock of capital in the economy for the given period which includes domestic as well as foreign direct investment (Adewumi *et al.* 2006). It is also called the creation of productive assets used to produce goods and services and is used as a macroeconomic parameter that determines the growth of an economy (Scott, 2003). Establishing backward and forward linkages with local industries to encourage domestic investment, transferring technologies and better management techniques, having access and capability to consider a wide variety of investment options, FDI also serves to boost the formation of gross capital in the host country (Sun, 2002).

2.2.6.10. Index of Industrial Production (IPP)

This index that details out the growth of various sectors in an economy. The sectors covered includes electrical, manufacturing, mining etc. According OECD (2017) industrial production refers to the output of industrial establishments and covers sectors such mining, manufacturing, electricity, air-conditioning among others. It is an index measurement indicator that captures changes in the volume of production output.

2.2.6.11. Financial Deepening Indicators

This refers to the role of financial intermediaries in an economy. It involves provision of financial services to both unbanked and under bank segment of the country (Gonzalez-Vega, 2013; Wikipedia). Term financial Deepening was introduced in 1973 by Shaw to describe a process of expanding financial transactions through market at a faster rate than the growth of non-financial activities. The opposite of financial deepening is financial repression. Financial Deepening indicators can be measure through money supply (M) to GDP and credit private sector (CPS) to GDP. A measure of financial deepening indicator used in this study is CPS/GDP.

2.2.6.12. Interest Rate

The Keynesian Theory of investment which was developed by a British economist John Maynard Keynes emphasized on the importance of interest rates in investment decisions. Changes in interest rates will have an effect on the level of planned investment undertaken by private sector businesses in the economy. However, a fall in interest rates reduces the cost of fund relative to the potential yield and as a result planned capital investment projects on the margin become worthwhile. There is inverse relationship between investment and rate of interest as noted by Keynesian theory. In countries like Nigeria, high interest rate or cost of fund makes business survivals difficult and also hinders establishment of new businesses. Even when the businesses exist, expansion and growth become more challenging because of high cost of funds coupled with dearth of infrastructure. This variable is ideal for a study where the effect of interest is assumed to have a significant impact on investment decisions.

2.2.7. Contributions of Foreign Direct Investment to Economic Growth

Growth in foreign direct investment (FDI) is perhaps the clearest sign of globalization in the past decades. The average annual growth rate of FDI has been 23 percent since 1986, which is twice as much as that of trade. At $1.5 trillion, flows of global FDI exceeded pre-financial crisis levels in 2011. Despite record cash holdings, transnational corporations have yet to convert available cash into new and sustained FDI, and are unlikely to do so while instability remains in international financial markets. Even so, half of the global total will flow to developing and transition economies, underlining the important development role that FDI can play, including in least developed countries (United Nations Conference on Trade and Development, UNCTAD, 2015).

Despite the effort of policy makers in Africa, the continent is not attracting FDI as is supposed to be. Africa's share of FDI to developing countries has been declining over time, from about 19 percent in the 1979s to 9 percent in the 1980s and to almost 3 percent in the 1990s (Chowdhury and Mavrotas, 2003) and the rate at which it is declining is high. FDI to developing countries increased by 40% in 2004, but the flow to Africa remains the same as it was in 2003, $18 billion. It should be noted that a major part of the foreign investment to Africa is channelled to the oil and gas sector. The strong investment in this sector is because of high prices of oil and gas which will increase investor's profitability (United Nations, 2005).

The global FDI flows decreased by about 2% to $1.75 trillion in 2016 when compared to that of 2015. In the same vein investment flow to developing countries also declined by more than 14% to $646 billion. Likewise, Africa's share of FDI in 2016 was $59 billion, which represent 3% decrease when compared to 2015 FDI inflow. Even though UNCTAD predicted a modest increase of FDI flows in 2017-2018, the recovery will still fall below the peak of 2007 FDI. (United Nations Conference on Trade and Development, UNCTAD, 2017).

Group of Economics/Regions	2011	2012	2013	2024	2015	2016	2017(Projections)
World	1700	1330	1452	1324	1774	1746	1670 to 1870
Developed economies	880	517	566	563	984	1032	940 to 1050
Europe	490	216	246	272	566	533	560
North America	263	204	250	231	390	425	360
Developing economies	725	729	778	704	752	646	660 to 740
Africa	48	55	57	71	61	59	65
Asia	431	415	426	460	524	443	515
Latin America and the Caribbean	244	256	292	170	165	142	130
Transition economies	95	84	108	57	38	68	75 to 85
Memorandum: annual growth rate (per cent)							
World	21	-22	9	-8	34	-2	(-4 to 7)
Developed economies	26	-41	9	-18	75	5	(-9 to 2)
Europe	50	-56	14	-20	108	-6	-5
North America	-1	-22	23	-15	69	9	-15
Developing economies	14	1	7	4	7	-14	(2 to 15)
Africa	9	15	4	-4	-14	-3	-10
Asia	7	-4	3	9	14	-15	-15
Latin America and the Caribbean	28	5	14	-3	-3	-14	-10
Transition economies	27	-12	29	-33	-34	81	(10 to 25)

Table 1: FDI Inflows by Group of Economies and Region, 2011-2016, and 2017 Projections (Billions of Dollars and Percent)
Source: United Nations Conference on Trade and Development, (UNCTAD) 2013 and 2017)

	Averages					Projections		
Host region	2005–2007	2009–2011	2009	2010	2011	2012	2013	2014
Global FDI flows	**1 473**	**1 344**	**1 198**	**1 309**	**1 524**	**1 495–1695**	**1 630–1 925**	**1 700–2 110**
Developed countries	**972**	**658**	**606**	**619**	**748**	**735–825**	**810–940**	**840–1 020**
European Union	646	365	357	318	421	410–450	430–510	440–550
North America	253	218	165	221	268	255–285	280–310	290–340
Developing countries	**443**	**607**	**519**	**617**	**684**	**670–760**	**720–855**	**755–930**
Africa	40	46	53	43	43	55–65	70–85	75–100
Latin America and the Caribbean	116	185	149	187	217	195–225	215–265	200–250
Asia	286	374	315	384	423	420–470	440–520	460–570
Transition economies	**59**	**79**	**72**	**74**	**92**	**90–110**	**100–130**	**110–150**

Figure 1: Summary of Econometric Results of Medium-term Baseline Scenarios of FDI Flows, by Region (Billions of dollars)
Source: UNCTAD, World Investment Report 2012

Some people view the presence of multinational enterprises (MNEs) in poor countries as a threat to economic development. Others see FDI as a potential source of economic growth. There are many benefits of FDI both to the host country and the home country, these benefits are noted by different authors. For instance, Alfaro (2003), said that in addition to the direct capital financing it supplies, FDI can serve as a source of valuable technology know-how to the host developing countries by fostering linkages with local firms. These technological innovations by MNEs play a central role in the economy and they are some of the most important areas where MNEs serves as catalyst to growth in developing countries.

FDI affect economic growth (and other dimensions of development) through three key mechanisms: size effects, skill and technology effects and structural effects. Size effects refer to the net contribution of FDI to the host country's savings and investment, thus affecting the growth rate of the production base (Bosworth & Collins, 1999). Most of the potential costs and benefits of foreign capital, however, result from more indirect effects of FDI either through the transfer of skills and technologies (Baldwin *et al.,* 1999) or through structural change in markets (competition and linkages), (Kokko, 1996).

Empirical evidence on the relationship between FDI and economic growth is still inconclusive; however, there are many benefits of FDI both to the host country and the home country, these benefits are noted by different authors. For instance, Alfaro (2003) said that in addition to the direct capital financing it supplies, FDI can serve as a source of valuable technology and know-how to the host developing countries by fostering linkages with local firms. These technological innovations by MNEs play a central role in the economy and they are some of the most important areas where MNEs serves as catalyst to growth in developing countries (Fabienne, 2007).

Despite the benefits that can be derived from FDI, it should be noted that it can also bring about some negative impact. For instance, activities of MNEs can displace local firms that cannot cope with the competition from foreign firms, thereby reducing the growth of the local firms (Jones, 1996). Also, if proper regulation is not in place in the host country, FDI can serve as a source of capital flight from the developing countries to the developed ones. For instance, due to some specific risks in the host country (economic and political risks), there could be large flow of capital from the host country to the home country if there is no legislation against such practice. It will also occur when legislations are enforced. This can have adverse effect on the host economy especially if such capital is sourced for within the host country. Finally, due to MNEs' higher production capacity, FDI can cause large scale environmental damage which sometimes is not well taken care of especially in the mining sector (Bora, 2002). It should be noted that the net contribution of FDI to growth can only be measured empirically.

GDP growth is usually the parameter to measure the economic growth of a country even though it is not the only parameter. GDP includes all the production within the country for the given period. Foreign direct investment is included 5 in GDP and much has been done to uncover the relationship between FDI and growth (Sarumi, 2006). Many research works have shown that the contribution of FDI to growth is positive. Using different data and methodologies, many researchers have concluded that FDI has positive impact on growth. For instance, in a paper by Loungani and Razin (2001), it was reported that of the three sources of capital flow to the developing countries (FDI, portfolio investment and primary bank loans), FDI was discovered to be the most resilient during the global financial crises from 1997-1998 and also during the Latin American financial crises in the 1980s. Moss, Ramachandran and Shah (2005) had a similar conclusion in their study which focused on three countries in Africa: Kenya, Tanzania and Uganda. It was discovered that the percentage of export that is from MNEs is far more than the one from local investors. This shows that FDI contributed more to GDP than local investment in the three countries. The OECD (2002) simply stated that FDI increases efficiency of resources and raises factor productivity in the host country, so it sees the influence of FDI on growth as positive.

Many researchers had proved that FDI is positively related to GDP growth and FDI enhances the process of GDP growth. The researchers that proved its significant and positive impact on economic development, includes; Chenery & Strout (1966); Bosworth, Collins & Reinhart (1999); Loungani & Razin (2001); Moss, Ramachandran & Shah (2005); De Gregorio (2003); Feridunm (2004); Bornsztein, Gregorio & Lee (1998); Sanchez-Robles (1998); North (1956); Borensztein, De Gregario & Lee (1998); Glass & Saggi (1998); Blomstrom, Lipsey & Zegan (1994); Balasubramanyan, Mohammed, Salisu & Sapsford (1996); Bengos & Sanchez-Robles (2003); Nabenende, Ford, Sen & Slater (2002); Aluko (1961); Brown (1962); Obinna (1983); Oseghale & Amonkhienan (1987); Das (1987) ; Din (1994); Balasubramanyam, Mohammad, Salisu & Sapsford (1996); Dees (1998); De Mello (1997); Adewumi (2006); Hasen & Giorgioni (2006); Athukorala (2003); Zhang (2004); Trevino & Upadhyaya (2003); Sjoholm (1999) and Agrawal (2000). On the basis of a research on least developed economies, it had been concluded that FDI had a significant and positive impact on GDP and it helped in raising the economic activity. The study also made an important statement, saying that FDI played a very vital role in rousing the economic growth (Chenery & Strout, 1966).

It had been proved that the contribution of FDI to GDP is three times more than that of local investment (De Gregorio, 2003). The study revealed that FDI brings in new expertise in the local market with the benefit of having access to foreign markets. According to the analysis, the researcher found out that increasing aggregate investment by 1 percentage point of GDP increased economic growth of Latin American countries by 0.1% to 0.2% a year, but increasing FDI by the same amount increased growth by approximately 0.6% a year during the period 1950-1985, proving that FDI is three times more efficient than local investment.

Feridunm (2004) conducted a study to examine the relationship between GDP and FDI in the economy of Cyprus. The study verified that there is a strong positive relationship between GDP and FDI and stated that if the economy of Cyprus manages to get the higher FDI, its GDP will increase and vice versa. Furthermore, the results of the research

suggested that the economic development of the country resides on its ability to get more FDI. So, the government must make policies that can help the country in attracting more FDI.

Bornsztein et al. (1998) also carried out a research to test the impact of foreign direct investment on a country's economic development. The data on the FDI flow from 16 countries was taken and the cross-country regression framework was applied. The analysis reported that FDI played a positive and significant role in boosting the economic growth through technology transmission. However, the analysis assumed that the host country must had minimum threshold of human capital so that new technology can be utilized more efficiently. Robles (1998) also tested the relationship between FDI and GDP in Latin America in the period of 1975-1985 and reported that FDI and GDP had a very strong relation. Increase in FDI had caused a definite increase in GDP growth. And the impact of FDI on GDP was highly significant and positive for this region.

FDI had a positive impact on GDP and foreign direct investment played an important role in supporting the import surplus and in enhancing total investment that helped in the economic development (North, 1956). Hasen and Giorgioni' (2006) research had assessed the impact of FDI on GDP growth of four AMU countries including; Algeria, Libya, Morocco and Tunisia - between 1990 and 2006. The variables under analysis included; total output, total factor productivity, domestic capital, foreign capital, labour input and human skills. These countries were chosen for analysis because as most other developing countries these countries were the one which were transitioning toward the policies of attracting inflows of FDI. The research empirically proved that FDI and GDP had a strong relation. The FDI inflows were an important determinant of GDP growth. The research analysed that the positive impact of FDI on the economy depended on its interaction with open trade policy, macroeconomic stability, better education level and filling of technology gap. The research suggested that AMU countries would do better by concentrating on human capital, developing domestic firms, creating a stable macroeconomic framework and providing productive investments to start up the process of economic development.

In Nigeria there have been positive inflows of FDI into the country except for 1980 when negative value was recorded. However, between 2004 and 2007, Nigeria experienced some remarkable improvements in the inflows of FDI but later plummeted after financial crises of 2008 occasioned by subprime mortgage crisis which started in 2007 in the US housing sector (Ajike (2014); Michalowski (2012); UNCTAD (2012) and World Investment Report, 2012).

The generation of productivity spill overs is one possible channel through which FDI can affect growth. Some earlier studies found evidence that FDI has led to significant positive spillover effects on the labour productivity of domestic firms and on the rate of growth of domestic productivity in Mexico (Blömstrom & Persson, 1983; Blömstrom, 1986; Blomström & Wolf, 1994). However, Kokko, Tansini and Zejan (1996) cautioned in the case of Mexico and Uruguay, that spill overs are difficult to identify in industries where foreign affiliates have much higher productivity levels than local firms' number of studies on the FDI-growth nexus in Nigeria exist in the literature. For example, Otepola (2002), in a work on FDI and economic growth in Nigeria reported a low level of existing human capital suggesting that the human capital (labour) available in Nigeria is not FDI inducing. Akinlo (2004) noted that export, labour, and human capital are positively related to economic growth in Nigeria. Ayanwale and Bamire (2001) assess the influence of FDI on firm level productivity in Nigeria and report a positive spillover of foreign firms on domestic firm's productivity.

2.3. Theoretical Review

The theories used in the study could be grouped into two major theories: investment theory and growth theory. The sub theories are the new growth theory, the neoclassical growth model, Harrod-Domar theory of growth, the dual-gap theory, acceleration theories of investment and Keynesian theory of investment. The anchor theory or the backbone theory in which the study was hinged is the Neoclassical Growth Model. This theory formed the anchor theory because it emphasizes the key element of investment and growth variables used in the study.

2.3.1. Theories of Investment

2.3.1.1. Keynesian Theory of Investment

The Keynesian Theory of investment which was developed by a British economist John Maynard Keynes emphasized on the importance of interest rates in investment decisions. There are other factors that entered into the model, in particular the expected profitability of an investment project. Changes in interest rates will have an effect on the level of planned investment undertaken by private sector businesses in the economy. However, a fall in interest rates reduces the cost of fund relative to the potential yield and as a result planned capital investment projects on the margin become worthwhile. There is inverse relationship between investment and rate of interest as noted by Keynesian theory. In countries like Nigeria, high interest rate or cost of fund makes business survivals difficult and also hinders establishment of new businesses. Even when the businesses exist, expansion and growth become more challenging because of high cost of funds coupled with dearth of infrastructure. This theory is ideal for a study where the effect of interest is assumed to have a significant impact on investment decisions. The Nigerian environment is such that the effect of interest rate might not significantly affect investment decisions because there are other more important factors like a dearth in infrastructure that impacts investment decision more than interest rate (Osundina & Osundina (2014) and Uchendu, 1993).

2.3.1.2. Acceleration Theories of Investment

The principle of acceleration is based on the fact that the demand for capital goods is derived from the demand for consumer goods which the former helps to produce. The acceleration principle explains the process by which an increase or decrease in the demand for consumption goods leads to an increase or decrease in investment on capital goods. The accelerator coefficient is the ratio between induced investment and an initial change in consumption expenditure. It was developed by Thomas Nixon Carver and Albert Aftalion and became known in 20th century as Keynesian theory became popular.

2.3.1.3. The Dual-gap Theory

The dual-gap analysis provides a framework that shows that the development of any nation is a function of investment and that such investment requires domestic savings which is not sufficient to ensure that development take place (Oloyede, 2002). The dual-gap theory is derived from a national income accounting identity which imply that excess investment expenditure (investment-savings gap) is equivalent to the surplus of imports over exports (foreign exchange gap) (Utomi, 2014).

2.3.2. Theories of Growth

2.3.2.1. Harrod-Domar Theory of Growth

Harrod and Domar assign a key role to investment in the process of economic growth. They place emphasis on the dual character of investment. It creates incomes and augments the productive capacity of the economy by increasing its capital stock. The former is termed demand effect and the latter the supply effect of investment. Hence as long as net investment occurs, real income and output will continue to expand. However, for maintaining a full employment equilibrium level of income from year to year, it is necessary that both real income and output should expand at the same rate at which the productive capacity of the capital stock is expanding. Otherwise, any divergence between the two will lead to excess or idle capacity, thus forcing entrepreneurs to curtail their investment expenditures. Ultimately, it will adversely affect the economy by lowering their incomes and employment in subsequent periods and moving the economy off the equilibrium path of steady growth.

2.3.2.2. The Neoclassical Growth Model

The central idea of the theory is that an economy grows by the liberalization (opening up) of national markets which draws additional domestic and foreign investment and thus increases the rate of capital accumulation (Todaro & Smith, 2009). The Solow (1957) growth model was an important contribution to the neoclassical theory, where gross domestic product, stock of capital (human and physical), labour, and the productivity of labour are posited to influence economic growth. This is the theory upon which this study is anchored on.

2.3.2.3. The New Growth Theory

Endogenous Growth Theory emphasized the importance of financial intermediaries in enhancing economic growth through its influence on savings and investment decision. The theory equally shows that economic growth performance is related to financial development, technology and income distribution (Satope, 2014). The theory emphasized that the degree to which the providers of capital to a firm can effectively monitor and influence how firms use that capital has rami fications on both savings and allocation decisions (Levine, 2012). The endogenous growth theory holds that policy measures can have an impact on the long run growth rate of an economy. For example, a subsidy on research and development or education increases the growth rate in some endogenous growth models by increasing the incentive to innovate. The main implication of growth theory is that policies which embrace openness, competition, changes and innovation will promote growth (Olusanya, 2013). While financial intermediation is cogent for bridging the gap between lenders and borrowers, it is not the focus of this study. The study assumes that there is sufficient financial intermediation between foreign investors and the financial institutions.

2.3.2.4. Theory for the Study

The main theory upon which this study is anchored is the Neoclassical Growth Model, which emphasized the importance of liberalization of the economy. The theory stated that economic growth concurs when an economy is open up for the investing public. It is only when there is liberalization in the economy that FDI can be attracted. Other theories of investments and growths earlier examined above are relevant to other variables used in this study.

2.4. Empirical Review of Literature

2.4.1. Evidence from Developing and sub-Saharan Africa Countries

Berthelemy and Demurger (2000) carried out a study on foreign direct investment and economic growth in China. Using the Simultaneous-equation model estimation based on a sample of 24 Chinese provinces, from 1985 to 1996, confirms the fundamental role played by foreign investment in provincial economic growth in China, and stresses the importance of potential growth in foreign investment decisions

According to Dosse, Rory and Thomas (2008) in a study on foreign direct investment and economic growth in developing countries using the ordinary least square (OLS). The results from the study showed a strong direct impact of

foreign direct investment on economic growth in developing countries, as well as an indirect impact through the interaction of foreign direct investment with human capital. Additionally, their results suggest that the impact of foreign direct investment on economic growth is greater among technological leaders. They concluded that absorptive capacity in the host economy is important in allowing foreign direct investment to positively and fully impact on economic growth

Sukar, Ahmed and Hassan (2007) in a study on the effects of foreign direct investment on economic growth in sub-Sahara Africa employed the augmented endogenous growth model using panel data for the period 1975-1999. The results indicate that foreign direct investment has marginally significant positive effect on economic growth. Domestic economic conditions such as macroeconomic policy, openness, and domestic investment have significant positive effect on economic growth.

Demirhan and Masca (2008) explored the determining factors of foreign direct investment inflows in developing countries over the period of 2000-2004. According to the econometric results, in the main model, growth rate of per capita, telephone main lines and degree of openness have positive sign and are statistically significant. Inflation rate and tax rate present negative sign and are statistically significant. Labour cost has positive sign and risk has negative sign. However, both are not significant.

In a related study, Sichei and Kinyondo (2012) examined the determinants of foreign direct investment in Africa, the study identifies a number of factors that affect FDI flows in Africa, including, agglomeration economies, natural resources, real GDP growth, and international investment agreements. The study also shows that the Africa-wide environment has become more conducive to FDI since the year 2000.

Alege and Ogundipe (2013) investigated the relationship between foreign direct investment and economic growth in ECOWAS member countries using the System-GMM panel estimation technique covering the period 1970-2011. The study interacted human capital and institutions indicators with other explanatory variables in explaining the variability of foreign direct investment. The results of the System-GMM appears contrary to earlier studies, as the contribution of foreign was insignificant and impacts negatively on growth in ECOWAS members' economy despite the controlling for the role of human capital and quality of institutions in the model.

Saibu and Akinbobola (2014) examined contributions of foreign direct investment, globalization to real economic growth fluctuation in selected sub-Saharan Africa countries. The result showed that out of the eleven countries studied, foreign direct investment explained the highest proportion in just three countries, Morocco, Ethiopia, and Zimbabwe. Except in Tunisia, Tanzania and Kenya, where the degree of economic openness explained substantial proportion of the output fluctuations, the variations in most of the countries were explained by factors beyond foreign direct investment and economic openness. The result supported the existing finding on African economies that trade liberalization had not substantially impaired economic growth process of the sub-African economies. The upsurge in the capital flows to African economies was also insufficient insulate the economic from the global meltdown and furthermore kick start post crisis economy recovery in Southern African countries. The paper concluded that fluctuations in real economic growth in these countries might be beyond the external shocks from the capital inflows and trade flows.

Miraskari, Masouleh and Alavi (2014) investigated and analyzed the relationship between foreign direct investment and economic growth, and the influence of foreign direct investment on private sector in stimulating economic and industrial growth in Iran. The study examined the direct and indirect effects of foreign direct investment on economic growth of Iran during the period 1970-2012. Results of regression model estimation have showed that coefficient of foreign direct investment (foreign direct investment, net inflows (percentage of GDP)) wasn't significant, but interaction between foreign direct investment and private sector has a significant impact on economic growth of Iran in the period. The finding showed that impacts of foreign direct investment on economic growth depend on the extent of the development of the private sector. Private sector acts as a channel for the linkage effect to be realized and create positive spillovers. Also, their findings indicate that trade openness is positively and significantly correlated with economic growth of Iran in the selected period. Mona (2015) studied the growth generating effect of foreign direct investment in sub-Saharan Africa by using panel data for 41 sub-Saharan countries during the time period of 2005 until 2013. The paper reveals that foreign direct investment has a positive effect on economic growth in the host countries

Bhavish, Nitisha and Sheereen (2016) in a study on foreign direct investment and economic growth in Sub-Saharan Africa using both static panel regression techniques and dynamic panel estimates. Evidence from the study suggested that aggregated foreign direct investment does have a positive and significant impact on economic growth. Based on static random effects, the inclusion of the 2009 Euro zone crisis did not diverge the results despite its negative impact on economic growth according to the study. The contribution of foreign direct investment is observed to be relatively higher than domestic investment.

2.4.2. Evidence from Nigeria

Obida and Abu (2010) investigated the determinants of foreign direct investment in Nigeria. The error correction technique was employed to analyze the relationship between foreign direct investment and its determinants. The results revealed that the market size of the host country, deregulation, political instability, and exchange rate depreciation were the main determinants of foreign direct investment in Nigeria. He further recommends the following policies: expansion of the country's GDP via production incentives; further deregulation of the economy through privatization and reduction of government interference in economic activities; strengthening of the political institutions to sustain the ongoing democratic process; gradual depreciation of the exchange rate; and increased investment in the development of the nation's infrastructure.

Adelakun (2010) examined the relationship between financial development and economic growth. The result showed that there is a substantial positive effect of financial development on economic growth in Nigeria. The Granger causality test showed that financial development promotes economic growth, but there is evidence of causality from economic growth to the development of financial intermediaries. Thus, advancement of the financial sector development, including diversification of financial instruments should be pursued to facilitate economic development in Nigeria.

Elias and Obi (2015) investigated the determinants of economic growth in Nigeria through the application of the Johansen co-integration technique and the vector error correction methodology. The results of the co-integrating technique suggested that there is long run relationship among domestic savings, expenditures on education and health, openness to trade, foreign direct investment, public infrastructure, and financial deepening with growth of real GDP per capita. The results revealed that while domestic savings, expenditure on education, openness, and financial depth (in the second lag) are positive determinants of economic growth, foreign direct investment and public infrastructure do not drive economic growth in Nigeria. It was also discovered that expenditures on health had negative effects on growth. A major policy implication of the result is that concerted effort should be made by policy makers to ensure macroeconomic stability and a conducive investment climate (in terms of stable power supply) so as to increase foreign direct investment inflow, and relaxation of credit constraints in Nigeria.

Ismaila and Imoughele (2015) examined the macroeconomics determinants of economic growth in Nigeria measured by real gross domestic product (RGDP). Time series data obtained from CBN for a period of 26 years that is 1986 to 2012 were used. Augmented Dickey-Fuller (ADF) test was used for the unit root test and Johansen's co-integration test also conducted to establish short and long run relationships between economic growth and its macroeconomics determinants. The result shows six co-integrating equations which establish the existence of long run relationship among the variables. Ordinary Least Square statistical technique was used to assess the degree of influence the variables have on each other. The results show that gross fixed capital formation, foreign direct investment and total government expenditure are the main determinants of Nigeria economic output under a stable inflationary rate.

Olusanya (2013) looked at the impact of Foreign Direct Investment inflow and economic growth in a pre- and post-deregulated Nigerian economy, a Granger causality test was use as the estimated technique from 1970 - 2010. The result of the causality test shows that there is causality relationship in the pre-deregulation era that is (1970-1986) from economic growth (GDP) to foreign direct investment inflow (FDI) which means GDP causes foreign direct investment, but there is no causality relationship in the post-deregulation era that is (1986-2010) between economic growth (GDP) and foreign direct investment inflow (FDI) which means GDP causes FDI. However, between 1970 to 2010 it shows that is causality relationship between economic growth (GDP) and foreign direct investment inflow (FDI) that is economic growth drive foreign direct investment inflow into the country and vice versa.

Adeleke, Olowe and Fasesin (2014) analyzed the impact of foreign direct investment on Nigeria economic growth over the period of 1999- 2013. The findings revealed that economic growth is directly related to inflow of foreign direct investment and it is also statistically significant which implies that a good performance of the economy is a positive signal for inflow of foreign direct investment. This implies that foreign direct investment is an engine of economic growth.

Okonkwo, Egbunike and Udeh (2015) investigated the effect of foreign direct investment on Nigeria's economic growth over the period 1990 to 2012. The study made use of ordinary least squares (OLS) estimation techniques in analyzing the secondary data. The result showed that Export assumes a positive sign which implies that there is a positive relationship between Economic growth and Export; in conclusion FDI has led to increase in Export in Nigeria.

Uma, Eboh and Nwaka (2015) focused on the effect of resources used by foreign investors and its implications on the economic development of Nigeria from 1980-2012. Findings showed that unemployment is indeed growth retarding. Foreign direct investment including all other variables impacted significantly on economic development. On the innovation accounting, variations in RGDP are explained more by unemployment in the longer period of about 21%. This implies that economic development is accelerated by creating jobs for the teaming populace.

2.5. Summary and Gap in Literature

The chapter reviewed and critiqued various literatures on FDI and economic growth. The chapter was divided and discussed into three major sections: conceptual, theoretical and empirical framework. In the conceptual review, concepts such as GDP, economic growth, FDI, were discussed. The theories which formed the foundations of this study are theories of growth and investment theory: the new growth theory, the neoclassical growth model, Harrod-Domar theory of growth, the dual-gap theory, acceleration theories of investment and Keynesian theory of investment. In the chapter the empirical works summarised were Adelakun (2010); Adeleke, Olowe & Fasesin (2014); Alege & Ogundipe (2013); Bhavish, Nitisha & Sheereen (2016); Demirhan & Masca (2008); Dosse, Rory & Thomas (2008); Eboh & Nwaka (2015); Egbunike & Udeh (2015); Elias & Obi (2015); Ismaila & Imoughele (2015), Miraskari, Masouleh & Alavi (2014); Obida & Abu (2010); Olusanya (2013); Okonkwo, Uma, Mona (2015); Saibu & Akinbobola (2014); Sichei & Kinyondo (2012) and Sukar, Ahmed & Hassan (2007).

The above reviewed empirical literatures provided information on taxation and economic growth. However, most of the studies dwell more on GDP and limited conceptual use of taxes.

Empirical evidences on the link between foreign and economic growth have been inconclusive; with some empirical works suggesting a positive effect of foreign direct investment on economic growth likewise, there are empirical evidence suggesting a marginal contribution of foreign direct investment to economic growth while some other literatures found an inverse effect of FDI on economic growth (Alege & Ogundipe, 2013). Kabir (2012) examined the applicability of

FDI and the impact it makes to the Nigerian economy. The study showed controversial effect of FDI on productivity, which further suggest lack of consensus among the scholars on the impact of FDI on the country's economic growth.

In some other literatures, it was revealed that multinational corporations are highly adaptive social agents and therefore, the degree to which they can help in improving economic activities through FDI will be heavily influenced by the policy choice of the host country. Few other studies showed that due to profits repatriations, contract fees, and interest payment on foreign loans, by the MNE, the country has not really experienced much economic growth through FDI. In order to evaluate the relationship between FDI and major economic indicators such as GDP, Index of Industrial Production (IIP) and GFCF, ordinary least square was used with over 30 years data. In view of the inconsistencies on the effect of FDI among the economic growth agents in the country. There is need for researchers to conduct further research in order to determine and ascertain the effect of FDI on economic growth in Nigeria using latest data and the best econometric technique.

2.6. Conceptual Model for the Study

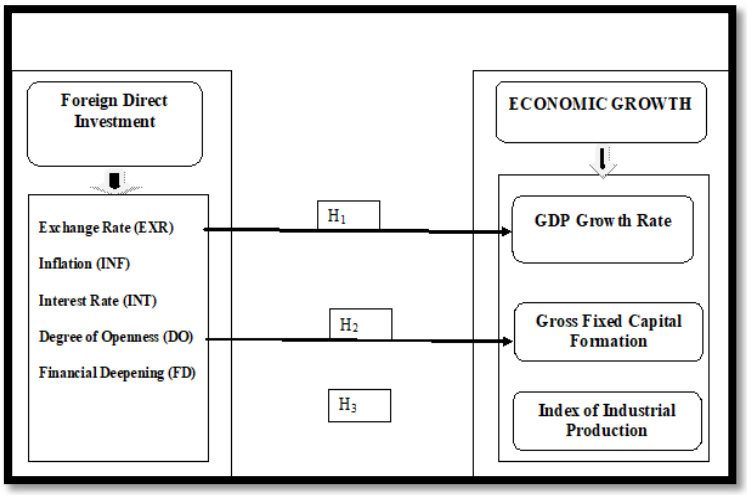

Figure 2: Conceptual Model for the Study
Source: Researcher's Conceptual Model 2018

3. Methodology

This chapter gives the methodology employed in the study, involving a discussion of data collection, analysis techniques and the research design used in the study. Efforts were made to describe different tools or techniques employed while analyzing the work. This section describes the overall structure of the analysis and the assumptions made. It lists the variables used to represent the issues of FDI and economic growth and it catalogues the preliminary analysis carried out that could influence the outcome of the result.

3.1. Research Design

In view of the nature of the data and characteristics of the problem, the study adopted the ex-post facto method of research. This is because data needed for analysis already exists. The data used are econometric data from Nigeria from 1981-2016. The research also involves hypotheses testing where the researcher tests the hypotheses of causal relationships among variables.

3.2. Population

The population of this study consisted of 36 years of Nigeria's economic Growth and FDI from 1981-2016.

3.3. Sample Size and Sampling Technique

Purposive sampling technique was used to select the duration (1981-2016) of the study. The period was selected because it constitutes and represents a wide range of time to draw up past and recent data.

3.4. Data and Sources

The data employed in this secondary data. The data on variables used was extracted from the Central Bank of Nigeria Statistical Bulletin (2016), the Annual Abstract of Statistics of the National Bureau of Statistics (NBS), World Bank's Development Indicator and from Internet sources.

Variable	Measurement	Definition	Sources of Data
Growth	GDP growth rate	GDP growth rate measures the changes economic growth of a country in a particular time period.	CBN (2016), NBS, World Bank
Gross Fixed Capital Formation (GFCF)	GFCF as a portion of GDP	The gross fixed capital formation is a national expenditure in a given time period on physical productive assets, e.g., buildings, infrastructures, civil engineering works, machinery, equipment and vehicles	CBN (2016), NBS, World Bank
Exchange Rate	Measured in Naira	It is the charge for exchanging currency of one country for the currency of another. A higher exchange rate would attract low FDI	CBN (2016), NBS, World Bank
Inflation (INF)	Measured by the percentage change in Consumer Price Index (CPI)	Inflation is measured by the consumer price index, which reflects the annual percentage change in the cost to the average consumer goods and services.	CBN (2016), NBS World Bank
Foreign Direct Investment (FDI)	Foreign direct investment as a ratio of GDP	The value of inward direct investment made by non-resident investors in the reporting economy with controlling interest.	CBN (2016), NBS World Bank
Index of Industrial Production (IIP)	IIP measures growth rate of various industry group	Measures changes in the various productive sectors of the economy over a period of time.	CBN (2016), NBS World Bank
Interest Rate (INT)	Prime rate is used to measure interest rate in this study.	It is a percentage of the principal charged by the lender. It is also known as cost of fund.	CBN (2016), NBS World Bank
Degree of Openness (DO)	Measured as a percentage of GDP	It is measured as total trade divided by GDP.	CBN (2016), NBS World Bank
Financial Deepening (FD)	Credit to private sector as measure of financial deepening indictor	This is measured by credit to private sector over GDP.	CBN (2016), NBS World Bank

Table 2: Variables, Measurement and Data Sources
Source: Researcher's Model 2018

3.5. Data Analysis

This work employed OLS multiple regressions to determine the effect of the independent variable on the dependent variable. In other to improve on the linearity of the model, log was introduced in the model for two out of the variables. The introduction of log was also because of the large numbers of the affected variables. The choice of OLS is mainly because it minimizes the error sum of squares and has a number of advantages such as unbiasedness, consistency, minimum variance and efficiency; it is widely used based on its property of BLUE (Best, Linear, Unbias, Estimate), simple and easy to understand (Koutsoyannis, 1971; Gujarati, 2004). The E-view econometric software 8.0 was used for this analysis. The statistical test of parameter estimates was conducted using their standard error, t-test, F-test, R, and $R^{2.}$ The economic criteria showed whether the coefficients of the variables conform to the economic a *priori* expectation, while the statistical criteria test was used to assess the significance of the overall regression.

3.5.1. Model Specifications

In other to achieve the objectives of this work, a multiple regression model was formulated. The value of GDP was also adjusted to take into consideration the effect of inflation. We state the model as follows:

GDPGR =f(FDI,INF,EXR,INT,DO,FD)_____(1)
GFCF = f(FDI,INF,EXR,INT,DO,FD)_____(2)
IIP = f(FDI,INF,EXR,INT,DO,FD)_____(3)

Model 1

$$(GDPGR_t) = \alpha + \sum_{i=1}^{N1} \beta_i \, (logFDI_{t-i}) + \sum_{t=1}^{N2} \beta_2 \, (INF_{t-i}) + \sum_{t=1}^{N3} \beta_3 (EXR_{t-i}) + \sum_{t=1}^{N4} \beta_4 (INT_{t-i}) + \sum_{t=1}^{N5} \beta_5 (DO_{t-i}) + \sum_{t=1}^{N6} \beta_6 (FD_{t-i}) + \varepsilon_t$$

Model 2

$$Log(GFCF_t) = \alpha + \sum_{i=1}^{N1} \beta_i\,(logFDI_{t-i}) + \sum_{t=1}^{N2} \beta_2\,(INF_{t-i}) + \sum_{t=1}^{N3} \beta_3(EXR_{t-i}) + \sum_{t=1}^{N4} \beta_4(INT_{t-i}) + \sum_{t=1}^{N5} \beta_5(DO_{t-i}) + \sum_{t=1}^{N6} \beta_6(FD_{t-i}) + \varepsilon_t$$

Model 3

$(IIP_t) = \alpha + \sum_{i=1}^{N1} \beta_i\,(logFDI_{t-i}) + \sum_{t=1}^{N2} \beta_2\,(INF_{t-i}) + \sum_{t=1}^{N3} \beta_3(EXR_{t-i}) + \sum_{t=1}^{N4} \beta_4(INT_{t-i}) + \sum_{t=1}^{N5} \beta_5(DO_{t-i}) + \sum_{t=1}^{N6} \beta_6(FD_{t-i}) + \varepsilon_t$ That is

GDPGR = $\alpha_0 + \beta_1 \log FDI + \beta_2\ INF + \beta_3\ EXR + \beta_4\ INT + \beta_5\ DO + \beta_6\ FD + \mu$----- (1)

logGFCF = $\alpha_0 + \beta_1 \log FDI + \beta_2\ INF + \beta_3\ EXR + \beta_4\ INT + \beta_5\ DO + \beta_6\ FD + \mu$------ (2)

IIP = $\alpha_0 + \beta_1 \log FDI + \beta_2\ INF + \beta_3\ EXR + \beta_4\ INT + \beta_5\ DO + \beta_6\ FD + \mu$------- (3)

Where:

GDPGR = Gross Domestic Product growth rate
GFCF= Gross Fixed Capital Formation
IIP = Index of Industrial Production
INF = Inflation Rate
FDI = Foreign Direct Investment
EXR =Exchange Rate
INT= Interest Rate
DO= Degree of Openness (Export plus import/GDP)
FD= Financial Deepening (Credit to private sector/GDP))

Where,

t= 36 years (1981 – 2016)
α_0 = Constant
$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$ = Model coefficients
μ = stochastic variable.
The stochastic term μ is included in the model to accommodate the effects of error terms.

3.6. Method of Data Analysis

3.6.1. Step 1: Pre- estimation Tests

- Stationarity/Unit Root Test: We check stationarity of data using the Augmented Dickey Fuller (ADF) test was done.
- Co integration test: Given that this study is dealing with a single equation model, it will be best to adopt the Engle and Granger (1987) co integration test. To implement the Engle-Granger co integration test, an ADF test on the residual of regression equation was carried out using a regression equation of the form below:

$$\Delta\hat{u}_t = \beta\hat{u}_{t-1} + \sum_{i=1}^{p} \alpha\Delta\hat{u}_{t-i} + \varepsilon_t$$

Where,

$$i = 1, \dots, p;\ \beta < 0; H_0: \beta = 0$$

3.6.2. Step 2: Empirical Estimation

The outcome of the co integration test informed the decision to use the estimation method adopted. If the ADF on the residual of equation (5) is stationary at level, that is if the I(d) is I(0) then the study will estimate a static model for long run effect. Short run dynamics can also be estimated using the error correction mechanism (ECM) in estimating the model where all variables are as defined above and where ε_t is the short-run random disturbance term; Δ is the first difference operator; Ni(1,2,3,4) is the number of lags and ECT_{t-1}, lagged value of the long-run random disturbance term while θ is the error-correction coefficient or speed adjustment parameter. Alternatively, the autoregressive distributed lag (ARDL) model which was proposed by Pesaran, Shin & Smith (1999, 2000, 2003) can be adopted to estimate the long run and short run dynamics of the model simultaneously if the series are of any order of integration apart form I(2). A model of the form below can be estimated:

$$\Delta(Economic\ growth_t) = \alpha + \sum_{i=1}^{N1} \beta_i\,(logFDI_{t-i}) + \sum_{t=1}^{N2} \beta_2\,(INF_{t-i}) + \sum_{t=1}^{N3} \beta_3(EXR_{t-i}) + \sum_{t=1}^{N4} \beta_4(INT_{t-i}) + \sum_{t=1}^{N5} \beta_5(DO_{t-i}) + \sum_{t=1}^{N6} \beta_6(FD_{t-i}) + \varepsilon_t$$

3.6.3. Step 3: Post Estimation Test

To ascertain the robustness of the estimates, the following post estimation tests were carried out:

- Linearity test
- Autocorrelation test: to check if there is a linear relationship between the independent variables and the error term

- Stability test: to check for structural instability in the model and its suitability for long run decisions.
- Normality test

3.6.3.1. Decision Rule

This study set the level of significance at 5% for all statistical proceedings. The decision applies that if the p- value is less than < 0.05 the null hypothesis will be rejected in favor of the alternative hypothesis, otherwise the null hypothesis is accepted. That is the a priori estimation is rejected at the null hypothesis at 5% level of significance since the probability of (F statistics) is less than 0.05.

3.6.1.3.1. A Priori Expectations

It is expected that $\beta_0, \beta_1, \beta_2, \beta_3\ \beta_4, \beta_5$ and β_6>0. The a *priori* expectation of the model is expressed below; αi (i = 0, 1, 2, 3, 4, 5, 6) > 0; μ = 0. It is expected that all the variables have a significant relationship with all the proxies of economic growth used in the study.

Hypothesis	Model	Expected Result
H_{01}: Foreign Direct Investment has no significant impact on Gross Domestic Product in Nigeria.	GDPGR = $\alpha_0 + \beta_1 \log FDI + \beta_2 INF + \beta_3 EXR + \beta_4 INT + \beta_5 DO + \beta_6 FD + \mu$ ------ (1)	P - value is less than < 0.05 (Significant)
H_{02}: Foreign Direct Investment has no significant effect on Gross Fixed Capital Formation in Nigeria.	logGFCF = $\alpha_0 + \beta_1 \log FDI + \beta_2 INF + \beta_3 EXR + \beta_4 INT + \beta_5 DO + \beta_6 FD + \mu$ ----- (2)	P - value is less than < 0.05 (Significant)
H_{03}: Foreign Direct Investment has no significant contribution on Index of Industrial Production in Nigeria	IIP = $\alpha_0 + \beta_1 \log FDI + \beta_2 INF + \beta_3 EXR + \beta_4 INT + \beta_5 DO + \beta_6 FD + \mu$ ------ (3)	P - value is less than < 0.05 (Significant)

Table 3: Expected Result

3.7. Ethical Consideration and Post Research Benefit

This study did not manipulate or window dress the results of the hypotheses test carried. The data analyzed in this study by the researcher have no intention of negatively affecting the Nigeria economy or cause embarrassment to any institutions. This research work will broaden the knowledge of policy makers, financial analysts, economist, and the general public on economic growth and FDI. Wherever applicable the study makes reference to the work of authors whose thoughts and words have been used in this study.

Policy makers, economic teams as well as researchers in the academic world will benefit from the wealth of knowledge generated in this study. The work will be published in Management and economics related journals. The results from this study would benefit government, policy makers and related finance ministries in the formation of policies, and implementation of investment decision. The outcome of this study will be of immense benefit to resource persons in CBN and other financial institutions. It is expected that the findings from this research would make available solutions and serve as useful guide for future policies as it relates to stimulating growth within the economy.

4. Data Analysis, Results and Discussion of Findings

4.1. Introduction

This chapter focuses on the presentation, analysis and interpretations of collected data from Nigeria. The study centred on Nigeria economic growth and FDI from 1981-2016. The secondary data retrieved is made up economic data from 1981 to 2016 and captures Gross Domestic Product growth rate (GDP), Index of Industrial Production (IIP), Gross Fixed Capital Formation (GFCF), Foreign Direct Investment (FDI), Exchange rate (EXR), Inflation rate (INF), Degree of Openness (DO), Financial Development Indicators (FD) and Interest Rate (INT). The data were collected from the Central Bank of Nigeria statistical Bulletin, the Annual Abstract of Statistics of the National Bureau of Statistics (NBS), World Bank's Development Indicator and from Internet sources.

The study used the descriptive, quantitative and econometrics analysis approaches in evaluating the effect of FDI on GDP, GFCF and IIP respectively from 1981 to 2016. The analysis cut across the regression analysis, correlation analysis, through applying the statistical program (E-Views) on the data. The data is presented in multivariate tables used to analyze and suggest answers to the research questions and achieve the objectives of the study.

The chapter is grouped into four sections. The first section reveals the data from the secondary sources and as well as the descriptive analysis and interpretations of the data gathered. The second part of the chapter deals with the preliminary test on the data. The third section presents relevant tables of findings for each hypothesis and interpretation. The last section discusses the findings.

4.2. Presentation of Data

Year	GDP Growth Rate (Annual)GR	GFCF (N' B)	IIP	FDI ($'M)	Exchange Rate (Annual Average) N/$(EXR)	Inflation (%) (INF)	Financial Deepening-CPS/GDP (%)(FD)	Interest Rate % (Prime)(INT)	Degree of Openness (Total Trade/GDP) %(DO)
1981	-13.13	8,822.13	115.6	542.33	0.61	20.81	5.9	7.75	16.48
1982	-1.05	6,841.75	122.9	430.61	0.67	7.7	6.9	10.25	12.24
1983	-5.05	4,486.73	96.4	364.43	0.72	23.21	7.2	10	10.07
1984	-2.02	2,871.65	91.6	189.16	0.76	17.82	7.3	12.5	9.55
1985	8.32	2,710.83	100	485.58	0.89	7.44	6.8	9.25	9.77
1986	-8.75	2,353.33	103.5	193.21	2.02	5.72	7.5	10.5	7.36
1987	-10.75	1,798.58	122.1	610.55	4.02	11.29	8.5	17.5	19.33
1988	7.54	1,878.75	108.8	378.67	4.54	54.51	8.5	16.5	16.43
1989	6.47	1,916.32	125	1,884.25	7.39	50.47	7.3	26.8	21.19
1990	12.77	2,656.97	130.6	587.88	8.04	7.36	6.7	25.5	31.14
1991	-0.62	2,646.85	138.8	712.37	9.91	13.01	6.9	20.01	35.4
1992	0.43	2,567.59	136.2	896.64	17.3	44.59	6.4	29.8	38.33
1993	2.09	2,978.27	131.7	1,345.37	22.05	57.17	10.1	18.32	30.53
1994	0.91	2,675.71	129.2	1,959.22	21.89	57.03	8.1	21	20.92
1995	-0.31	1,974.80	128.8	1,079.27	21.89	72.84	6.2	20.18	58.92
1996	4.99	2,332.14	132.5	1,593.46	21.89	29.27	6.3	19.74	49.54
1997	2.8	2,538.29	140.6	1,539.45	21.89	8.53	7.7	13.54	50.77
1998	2.72	2,409.92	133.9	1,051.33	21.89	10	7.7	18.29	34.63
1999	0.47	2,339.41	129.1	1,004.92	92.69	6.62	8.1	21.32	38.65
2000	5.32	2,737.85	138.9	1,140.14	102.11	6.93	7.7	17.98	42.49
2001	4.41	2,143.53	144.1	1,190.63	111.94	18.87	9.4	18.29	39.66
2002	3.78	2,579.53	145.2	1,874.04	120.97	12.88	8.2	24.85	28.74
2003	10.35	3,872.89	147	2,005.39	129.36	14.03	8.2	20.71	38.85
2004	33.74	2,943.22	151.2	1,874.03	133.5	15	8.2	19.18	38.04
2005	3.44	2,635.38	158.8	4,982.53	132.15	17.86	8.3	17.95	45.12
2006	8.21	4,200.47	120.8	4,854.42	128.65	8.24	8	17.26	36.4
2007	6.83	5,953.28	119.4	6,034.97	125.83	5.38	11.2	16.94	37.04
2008	6.27	5,910.08	117.8	8,196.61	118.57	11.58	17.7	15.14	40.81
2009	6.93	7,964.94	118.2	8,554.84	148.88	11.54	20.7	18.99	31.81
2010	7.84	9,183.06	121.5	6,026.23	150.3	13.72	18.6	17.59	36.94
2011	4.89	8,425.76	108.27	8,841.11	153.86	10.84	16.9	16.02	41.65
2012	4.28	8,640.77	109.9	7,069.93	157.5	12.22	20.4	16.79	34.73
2013	5.39	9,320.35	109.89	5,562.87	157.31	8.48	19.7	16.72	30.84
2014	6.31	10,571.74	115.94	4,655.85	158.55	8.06	19.2	16.55	26.39
2015	2.65	10,432.23	116.07	3,128.59	193.28	9.02	19.8	16.85	21.16
2016	-1.62	2,380.38	99.1	4,434.65	253.49	15.7	20.8	16.87	18.05

Table 4: Data on Nigeria GR, GFCF, IIP, FD, DO, FDI, Inflation, and Exchange from 1981– 2016
Sources of the data: CBN, NBS and World Bank

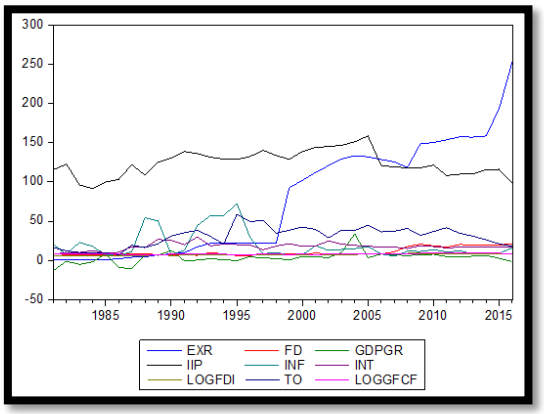

Figure 3: Relationships between Variables

	EXR	FD	FDI	GDPGR	GFCF
Mean	76.59	10.64	2,702.09	3.52	4,408.20
Median	57.37	8.17	1,566.45	4.03	2,724.34
Maximum	253.49	20.77	8,841.11	33.73	10,571.74
Minimum	0.61	5.91	189.16	-13.12	1,798.57
Std. Dev.	72.03	5.21	2,635.58	7.61	2,850.79
Skewness	0.42	1.08	1.04	1.22	0.99
Kurtosis	1.98	2.39	2.78	8.69	2.40
Jarque-Bera	2.62	7.57	6.65	57.65	6.46
Probability	0.26	0.022	0.03	0.00	0.03
Sum	2,757.30	383.13	97,275.56	126.87	158,695.51
Sum Sq. Dev.	181,634.4	953.21	2.430.08	2,028.26	2.840.08
Observations	36	36	36	36	36

Table 5: Descriptive Statistics

	IIP	INF	INT	DO
Mean	123.87	19.60	17.59	30.55
Median	122.50	12.54	17.54	33.22
Maximum	158.80	72.83	29.80	58.91
Minimum	91.60	5.38	7.75	7.36
Std. Dev.	16.18	17.69	4.75	12.87
Skewness	0.02	1.66	0.18	-0.11
Kurtosis	2.42	4.52	3.47	2.31
Jarque-Bera	0.49	20.11	0.54	0.77
Probability	0.78	0.00	0.75	0.67
Sum	4,459.37	705.70	633.42	1,099.99
Sum Sq. Dev.	9,165.49	10,953.29	792.10	5,802.57
Observations	36	36	36	36

Table 6: Descriptive Statistics

4.2. Preliminary Analysis

	EXR	FD	GDPGR	IIP	INF	INT	LOGFDI	DO	LOGGFCF
EXR	5,045.40	288.13	188.19	22.30	-478.5	34.15	62.29	241.88	20.10
FD	288.13	26.47	4.89	-29.49	-25.31	-1.71	4.09	1.63	2.018
GDPGR	188.19	48.94	56.34	43.47	-10.9	11.81	3.054	34.27	0.18
IIP	22.30	-29.49	43.47	254.59	24.52	41.09	2.36	130.30	-3
INF	-478.5	-25.31	-10.9	24.52	304.25	27.59	-3.23	19.29	-3.89
INT	34.15	-1.71	11.81	41.09	27.59	22.00	1.19	26.60	-0.92
LOGFDI	62.29	4.09	3.05	2.36	-3.23	1.19	1.17	6.84	0.32
DO	241.88	1.63	34.27	130.30	19.29	26.60	6.84	161.18	-0.47
LOGGFCF	20.10	2.018	0.18	-3	-3.89	-0.92	0.32	-0.47	0.32

Table 7: Covariance Test

Pairwise Granger Causality Tests			
Sample: 1981 2016			
Lags: 2			
Null Hypothesis:	**Obs**	**F-Statistic**	**Prob.**
INF does not Granger Cause GDPGR	34	0.37947	0.6876
GDPGR does not Granger Cause INF		1.61606	0.2161
INT does not Granger Cause GDPGR	34	2.23531	0.1251
GDPGR does not Granger Cause INT		0.52675	0.5961
DO does not Granger Cause GDPGR	34	1.75553	0.1907
GDPGR does not Granger Cause DO		0.60238	0.5542
EXR does not Granger Cause GDPGR	34	1.31469	0.2841
GDPGR does not Granger Cause EXR		0.25303	0.7781
FD does not Granger Cause GDPGR	34	0.02319	0.9771
GDPGR does not Granger Cause FD		0.10656	0.8993
FDI does not Granger Cause GDPGR	34	0.92745	0.4070
GDPGR does not Granger Cause FDI		3.03409	0.0636

Table 8: Granger Cause Test on GDPGR

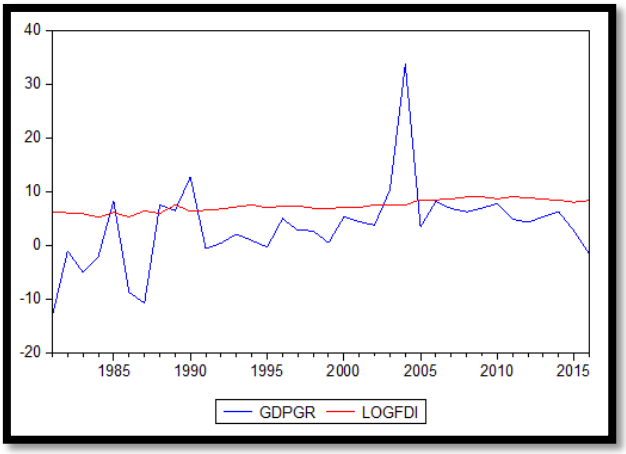

Figure 4: Relationships between GDPGR and LOGFDI

Pairwise Granger Causality Tests			
Sample: 1981 2016			
Lags: 2			
Null Hypothesis:	**Obs**	**F-Statistic**	**Prob.**
INF does not Granger Cause GFCF	34	0.06440	0.9378
GFCF does not Granger Cause INF		0.33797	0.7160
INT does not Granger Cause GFCF	34	0.31930	0.7292
GFCF does not Granger Cause INT		0.84868	0.4383
DO does not Granger Cause GFCF	34	0.85212	0.4369
GFCF does not Granger Cause DO		2.06566	0.1450
EXR does not Granger Cause GFCF	34	2.28769	0.1195
GFCF does not Granger Cause EXR		0.69080	0.5092
FD does not Granger Cause GFCF	34	1.51462	0.2368
GFCF does not Granger Cause FD		3.68894	0.0374
FDI does not Granger Cause GFCF	34	12.0369	0.0002
GFCF does not Granger Cause FDI		0.51090	0.6053

Table 9: Granger Cause Test on GFCF

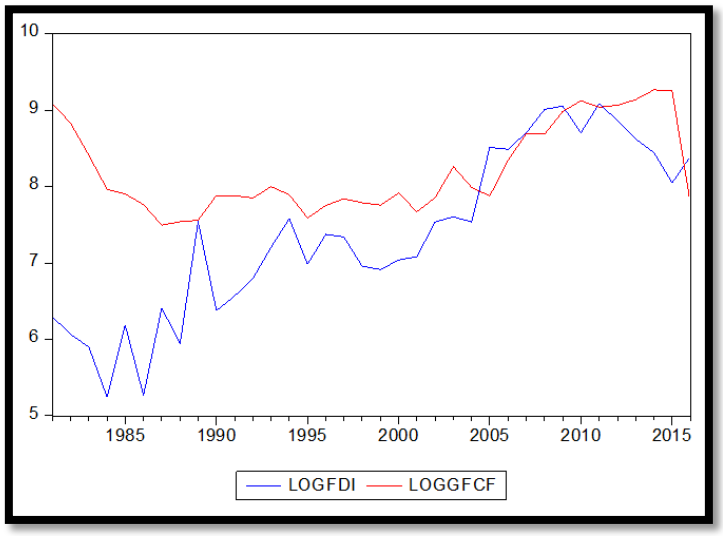

Figure 5: Relationships between LOGGFCF and LOGFDI

Pairwise Granger Causality Tests			
Sample: 1981 2016			
Lags: 2			
Null Hypothesis:	**Obs**	**F-Statistic**	**Prob.**
INF does not Granger Cause IIP	34	0.73475	0.4883
IIP does not Granger Cause INF		0.67657	0.5162
INT does not Granger Cause IIP	34	3.52182	0.0427
IIP does not Granger Cause INT		0.11338	0.8932
DO does not Granger Cause IIP	34	0.25454	0.7770
IIP does not Granger Cause DO		1.06451	0.3580
EXR does not Granger Cause IIP	34	0.71108	0.4995
IIP does not Granger Cause EXR		0.01684	0.9833
FD does not Granger Cause IIP	34	0.60985	0.5503
IIP does not Granger Cause FD		0.92122	0.4094
FDI does not Granger Cause IIP	34	0.79556	0.4609
IIP does not Granger Cause FDI		2.05492	0.1464

Table 10: Granger Cause Test on IIP

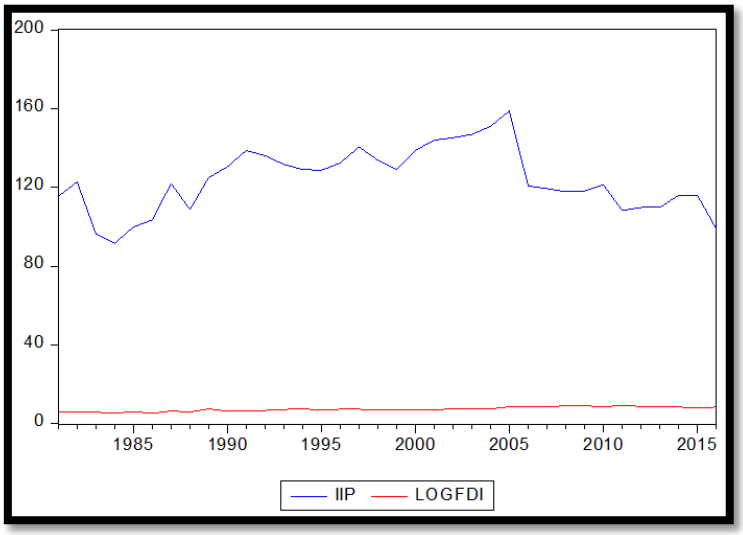

Figure 6: Relationship between IIP and LOGFDI

Null Hypothesis: Unit root (individual unit root process)				
Series: EXR, FD, GDPGR, IIP, INF, INT, LOGFDI, DO, LOGGFCF				
Sample: 1981 2016				
Exogenous variables: Individual effects				
Automatic selection of maximum lags				
Automatic lag length selection based on SIC: 0 to 1				
Total number of observations: 314				
Cross-sections included: 9				
Method			**Statistic**	**Prob.****
ADF - Fisher Chi-square			37.7464	0.0042
ADF - Choi Z-stat			-1.24553	0.1065
Intermediate ADF test results UNTITLED				
Series	Prob.	Lag	Max Lag	Obs
EXR	0.9982	0	8	35
FD	0.9216	0	8	35
GDPGR	0.0004	0	8	35
IIP	0.3765	0	8	35
INF	0.0662	0	8	35
INT	0.0168	0	8	35
LOGFDI	0.7502	1	8	34
DO	0.1916	0	8	35
LOGGFCF	0.2820	0	8	35

Table 11: Unit Root Test

4.2.1. Interpretation

From the Tables and Figures, we can deduce that the results of Unit root test for residuals of OLS regression of model. To test for co integration, we began by verifying that all our variables are each individually non-stationary. In this regard, unit root test for none-stationarity on the levels of the identified variables were carried out. The Augmented Dickey Fuller (ADF) was utilized. The ADF with trend and intercept showed the existence of unit root and therefore non-stationarity in the level of FDI, Openness, and Inflation and growth rate. We found interest rate to be stationary at a level. The results of the test indicate that the white noise of the error term occurs in the zero lag. In other words, the error term has the highest value at the zero lag. The absolute value of Dickey-Fuller statistic at the zero lag is 37.7464 and lesser than the critical value (0.003) at 95% confidence level. It means that the null hypothesis of unit root for residuals is rejected. Findings from Augmented Dickey Fuller Tests (ADF) as shown in Fuller (1976), Dickey and Fuller (1979)) showed that all series variables are non-stationary at their level forms but became stationary after taking first differences I (1) at 5% significance level. According to Granger Two- Steps Test, there was no co integration relationship among variables of model. When the result of the Granger Cause test was analyzed, it can be seen that the F-statistic and the probability values indicate if the null hypothesis should be accepted or rejected. In the column on GDPGR and FDI, we found that the null hypothesis FDI does not Granger cause GDPGR, we have the F-statistic as 0.927 with a probability value of 0.0404 which indicates non-causality. This no causality was observed also in the variable of GFCF except IIP. Furthermore, the study revealed that the variables (GDPGR, FDI, EXR, INT and INF, FD DO) that were used for the study were co integrated and have a stable relationship in the long-run. The presence of co integration between GDPGR, FDI, EXR, INT and INF, FD, DO based on the co-integration test, allowed the use of Granger Causality test to determine the causal direction between the variables.

4.3. Hypothesis Testing

This work used OLS multiple regressions to determine the effect of the independent variable on the dependent variable. In other to improve on the linearity of the model we introduced log in two of the variables in the model. The choice of OLS is mainly because it minimizes the error sum of squares and has a number of advantages such as unbiasedness, consistency, minimum variance and efficiency. It is widely used based on its property of BLUE (Best, Linear, Unbias, Estimate), simple and easy to understand. The statistical test of parameter estimates was conducted using their standard error, t-test, F-test, and R^2. The economic criteria showed whether the coefficients of the variable conform to the economic a *priori* expectation, while the statistical criteria test was used to assess the significance of the overall regression.

4.3.1. Hypothesis One

- Ho: Foreign Direct Investment (FDI) has no significant impact on Gross Domestic Product growth rate (GDPGR) in Nigeria.
- H_1: Foreign Direct Investment has a significant impact on Gross Domestic Product growth rate in Nigeria.

Model 1

$$(GDPGR_t) = \alpha + \sum_{i=1}^{N1} \beta_i (logFDI_{t-i}) + \sum_{t=1}^{N2} \beta_2 (INF_{t-i}) + \sum_{t=1}^{N3} \beta_3 (EXR_{t-i}) + \sum_{t=1}^{N4} \beta_4 (INT_{t-i}) + \sum_{t=1}^{N5} \beta_5 (DO_{t-i}) + \sum_{t=1}^{N6} \beta_6 (FD_{t-i}) + \varepsilon_t$$

Where
GDPGR = Gross Domestic Product growth rate
INF = Inflation Rate
FDI = Foreign Direct Investment
EXR = Exchange Rate
INT=Interest Rate
DO= Degree of Openness (Export plus import/GDP)
FD= Financial Deepening (Credit to private sector/GDP))
Where t= 36 years (1981 – 2016)
α_0 = Constant
$\beta 1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6,$ = Model coefficients
μ = stochastic variable.

Dependent Variable: GDPGR Method: Least Squares Sample: 1981 2016 Included observations: 36				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	-12.94221	13.45632	-0.961794	0.3441
LOGFDI	1.662471	2.536186	0.655501	0.5173
INT	0.346670	0.310125	1.117840	0.2728
INF	-0.033851	0.082633	-0.409652	0.6851
DO	0.037329	0.135844	0.274792	0.7854
FD	-0.494726	0.470723	-1.050991	0.3019
EXR	0.037680	0.035604	1.058313	0.2986
R-squared	0.274979	Durbin-Watson stat		2.123578
Adjusted R-squared	0.124975			
F-statistic	1.833143			
Prob(F-statistic)	0.127323			

Table 12: Relationship between FDI and GDPGR

GDPGR = -12.942 + 1.662LOGFDI + 0.346INT - 0.0338INF + 0.0373DO - 0.494FD + 0.0376EXR

4.3.2. Interpretations

In the estimated regression line above, the value of α_0 (the constant term) was -12.942. The regression coefficient of log FDI in the estimated regression line was 1.662, the calculated t statistics was 0.655, this shows that the relationship between FDI and GDP was not statistically significant (p = 0.5173 > 0.05) for the period under review. The regression coefficient of exchange rate (EXR) in the estimate regression line was 0.0376. In the estimated regression line above, the regression coefficient of inflation INF was -0.034. The coefficient of determination (R^2) was 0.274. Adjusted coefficient of determination (R^2) was 0.125. The Durbin-Watson statistics was 2.123 which shows presence of autocorrelation in the regression equation. The model posted a Standard Error of 7.120. In other to confirm the specification status of our model, the analysis of variance or ANOVA showed an F-ratio calculated (1.833) lesser than F-ratio critical (2.59), at 5% levels of significance respectively. The value of the probability of F-stat was 0.127 which is more than 0.05. This implies that the overall regression was not statistically significant at 5% level of significance. The result showed that jointly and collectively EXR (Exchange Rate), INF (inflation), FDI (Foreign Direct Investment) FD (Financial deepening), INT (Interest Rate) and DO (Degree of Openness) jointly have no effect on GDPGR (Gross Domestic Product Growth Rate). We conclude thus; that the variables contained in this model have no significant relationship with the level of economic growth in Nigeria. Based on the analysis and statistic examined, we reject the alternative hypothesis that says Foreign Direct Investment (FDI) has significant impact on Gross Domestic Product Growth rate (GDPGR) in Nigeria in place of the null hypothesis. We therefore accept the null hypothesis that says Foreign Direct Investment has no significant impact on Gross Domestic Product growth rate in Nigeria.

4.4. Hypothesis Two

- Ho: Foreign Direct Investment has no significant effect on Gross Fixed Capital Formation in Nigeria
- H_1: Foreign Direct Investment has a significant effect on Gross Fixed Capital Formation in Nigeria

Model 2

$$(LogGFCF_t) = \alpha + \sum_{i=1}^{N1} \beta_i\,(logFDI_{t-i}) + \sum_{t=1}^{N2} \beta_2\,(INF_{t-i}) + \sum_{t=1}^{N3} \beta_3(EXR_{t-i}) + \sum_{t=1}^{N4} \beta_4(INT_{t-i}) + \sum_{t=1}^{N5} \beta_5(DO_{t-i}) + \sum_{t=1}^{N6} \beta_6(FD_{t-i}) + \varepsilon_t$$

Where
GFCF= Gross Fixed Capital Formation
INF = Inflation Rate
FDI = Foreign Direct Investment
EXR = Exchange Rate
INT=Interest Rate
DO= Degree of Openness (Export plus import/GDP)
FD= Financial Deepening (Credit to private sector/GDP))
Where t= 36 years (1981 – 2016), α_0 = Constant, $\beta 1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, =$ Model coefficients, μ = stochastic variable.

Dependent Variable: LOGGFCF Method: Least Squares Sample: 1981 2016 Included observations: 36				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	6.662839	0.732678	9.093816	0.0000
LOGFDI	0.280069	0.138092	2.028137	0.0518
FD	0.054153	0.025630	2.112844	0.0433
DO	-0.004800	0.007397	-0.648941	0.5215
EXR	-0.002665	0.001939	-1.374558	0.1798
INT	-0.035429	0.016886	-2.098129	0.0447
INF	-0.006004	0.004499	-1.334513	0.1924
R-squared	0.630054	Akaike info criterion		1.115633
Adjusted R-squared	0.553514	Schwarz criterion		1.423540
F-statistic	8.231646	Durbin-Watson stat		1.140687
Prob(F-statistic)	0.000030			

Table 13: Relationship between FDI and GFCF

LOGGFCF = 6.662 + 0.280LOGFDI + 0.0541FD - 0.0047DO - 0.003EXR - 0.035INT - 0.006INF

4.4.1. Interpretations

In the estimated regression line above, the value of α_0 (the constant term) was 6.662. The regression coefficient of logFDI in the estimated regression line was 0.280, the calculated t statistics was 2.028. This shows that the relationship between logFDI and logGFCF was positive but statistically not significant (p = 0.051 > 0.05) for the period under review. The regression coefficient of exchange rate (EXR) in the estimate regression line was -0.002 and the regression coefficient of inflation INF was -0.006. The regression coefficient of Degree of Openness (Export plus import/GDP) was -0.004 and the regression coefficient of FD= Financial Deepening (Credit to private sector/GDP) was 0.054.

The coefficient of determination (R^2) was 0.630. Adjusted coefficient of determination (R^2) was 0.553. This shows that 55.3% of variation in GFCF (proxy for economic growth) is caused by variations in the explanatory variables (Foreign Direct Investment, Exchange rate, Degree of openness, Financial deepening, Interest rate and Inflation). It also means that about 44.7% of the variation in the model is captured by the error term. This shows that the line of best fit was not highly fitted. The Durbin-Watson statistics was 1.141 which shows the presence of autocorrelation in the regression equation. The model posted a Standard Error of 0.387. Log Likelihood -13.081, Akaike information criterion 1.116 and Schwarz criterion of 1.423. In other to confirm the specification status of our model, the analysis of variance or ANOVA showed an F-ratio calculated (8.232) greater than F-ratio critical (2.59), at 5% levels of significance respectively. The value of the probability of F-stat is 0.000 which is less than 0.05 implies that the overall regression is statistically significant at 5% level of significance. The value of the F-statistic shows that the equation has a good fit, that is, the explanatory variables are good explainer of changes in FDI in Nigeria. The result showed that EXR (Exchange Rate), FD (Financial deepening), DO (Degree of openness), INF (Inflation), INT (Interest Rate) and FDI (Foreign Direct Investment) jointly have an effect on GFCF (Gross Fixed Capital Formation). We conclude thus; that the variables contained in this model have a significant relationship with the level of gross fixed capital in Nigeria. Based on the analysis and statistic examined, this study rejects the null hypothesis that says Foreign Direct Investment (FDI) has no significant impact on Gross Fixed Capital Formation (GFCF) in Nigeria. This study concludes that Foreign Direct Investment (FDI) has significant impact on Gross Fixed Capital Formation (GFCF) in Nigeria.

4.5. Hypothesis Three

- Ho: Foreign Direct Investment has no significant contribution to Index of Industrial Product in Nigeria.
- H_1: Foreign Direct Investment has a significant contribution to Index of Industrial Product in Nigeria.

Model 3

$$(IIP_t) = \alpha + \sum_{i=1}^{N1} \beta_i\,(logFDI_{t-i}) + \sum_{t=1}^{N2} \beta_2\,(INF_{t-i}) + \sum_{t=1}^{N3} \beta_3(EXR_{t-i}) + \sum_{t=1}^{N4} \beta_4(INT_{t-i}) + \sum_{t=1}^{N5} \beta_5(DO_{t-i}) + \sum_{t=1}^{N6} \beta_6(FD_{t-i}) + \varepsilon_t$$

Where
IIP= Index of Industrial Production
INF = Inflation
FDI = Foreign Direct Investment
EXR = Exchange Rate
INT=Interest Rate
DO= Degree of Openness (Export plus import/GDP)
FD= Financial Deepening (Credit to private sector/GDP))
Where t= 36 years (1981 – 2016)
α_0 = Constant
$\beta 1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_{6,}$ = Model coefficients
μ = stochastic variable.

Dependent Variable: IIP Method: Least Squares Sample: 1981 2016 Included observations: 36				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	95.60812	18.85806	5.069881	0.0000
LOGFDI	2.171272	3.554282	0.610889	0.5460
FD	-2.200472	0.659684	-3.335647	0.0023
DO	0.487733	0.190376	2.561942	0.0159
EXR	0.063181	0.049896	1.266264	0.2155
INT	1.019799	0.434618	2.346427	0.0260
INF	-0.103424	0.115804	-0.893096	0.3792
R-squared	0.684891	Akaike info criterion		7.611612
Adjusted R-squared	0.619696	Schwarz criterion		7.919519
S.E. of regression	9.979517	Durbin-Watson stat		1.686311
Log likelihood	-130.0090			
F-statistic	10.50527			
Prob.(F-statistic)	0.000003			

Table 14: Relationship between FDI and IIP

IIP = 95.608+ 2.171LOGFDI - 2.200FD + 0.488DO + 0.0631EXR + 1.0197INT - 0.103INF

4.5.1. Interpretation

In the estimated regression line above, the value of α_0 (the constant term) was 95.608. The regression coefficient of FDI in the estimated regression line was 2.171, the calculated t statistics was 0.546, this shows that the relationship between FDI and IIP was positive and statistically not significant at 5% level of significant (p =0.546> 0.05) for the period under review. The regression coefficient of exchange rate (EXR) in the estimate regression line was 0.063. The relationship between IIP and exchange rate was not statistically significant (p = 0.215). The regression coefficient of inflation (INF) was -0.103 and the t statistics was 0.379 but the relationship between Inflation and IIP was negative, and it was not statically significant (p = 0.379). Meanwhile the relationship between interest rate and IPP was positive and statically significant (p=0.026<0.05). The regression coefficient of Degree of Openness (Export plus import/GDP) was 0.487 and the regression coefficient of Financial Deepening (Credit to private sector/GDP) was -2.200.

The coefficient of determination (R^2) was 0.684. Adjusted coefficient of determination (R^2) was 0.619. This shows that 61.9% of variation in IIP (proxy for economic growth) is caused by variations in the explanatory variables (Foreign Direct Investment, Exchange rate, Degree of openness, financial deepening, interest rate and Inflation). It also means that about 38.1% of the variation in the model is captured by the error term. The Durbin-Watson statistics was 1.686 which shows the presence of autocorrelation in the regression equation. The model posted a Standard Error of 9.979. Log Likelihood -130.009, Akaike information criterion 7.611 and Schwarz criterion of 7.919. In other to confirm the specification status of our model, the analysis of variance or ANOVA showed an F-ratio calculated (10.505) greater than F-ratio critical (5.59), at 5% levels of significance respectively. The value of the probability of F-stat is 0.000 which is less than 0.05. This implies that the overall regression was statistically significant at 5% level of significance. The result showed that EXR (Exchange Rate), FD (financial deepening), Degree of openness (DO), INF (inflation), INT (Interest rate) and FDI (Foreign Direct Investment) jointly have an effect on IIP (Index of Industrial Production). We conclude thus; that the variables contained in this model has a significant relationship with the level of economic growth in Nigeria. Based on the analysis and statistic examined, we reject the null hypothesis that Foreign Direct Investment (FDI) has no significant effect on Index of Industrial Production (IIP) in Nigeria in favour of the alternative which is that Foreign Direct Investment (FDI) has a significant effect on Index of Industrial Production in Nigeria.

4.6. Discussion of Findings

4.6.1. Discussion on the Impact of FDI and GDPGR

The result of the analysis shows that FDI does not have an effect on GDP growth rate in Nigeria for the period under review. The findings from this study corroborates with the work of Salami, Fatimah, Gazi and Makua (2012), in their study which reported that FDI possess a significant negative effect on economic growth. Given contrasting evidence in the literature pertaining to the impact of Foreign Direct Investment on the host country's economy. Najia, Mryam and Nobeel, (2013), take the case of Pakistan and test the said association for the nation. The data used in their study spanned from 1981 till 2010. Their findings indicated that Pakistan's economic performance is negatively affected by foreign investment while its domestic investment has benefitted its economy. Moreover, financial deepening and inflation were found to have negative impact on its GDP growth. The reason for such non-conformity could be traced to unfavourable macroeconomic environment in Nigeria, like the general price level, interest rate, exchange rate etc. It may also be as a result of the data employed. Adjusted data like inflationary influence based on the result of Granger causality test or unidirectional causality between FDI and GDP or causality runs from GDP to FDI produces sometimes different findings from unadjusted data.

This study used GDP growth rate to measure economic growth. According to Johnson (2000) economic growth is that part of economic theory that explains the rate at which a country's economy grows over time. The use of GDP growth rate as proxy for economic growth meets our demand as a measure of economic growth because it determines whether or not an increased aggregate expenditure is matched by an increase in real output overtime. Also, GDP is a good proxy for market size; for it explains FDI inflow into an economy (Dinda, 2009; Ibrahim and Sadiat, 2009, Nurudeen, 2010).

Nigeria has a large market size thus it is expected that stock of FDI to it will be large and significant. Foreign Direct Investment (FDI) is a key element in international economic integration. It creates direct, stable and long-lasting links between economies. FDI encourages the transfer of technology and know-how between countries, and also allows the host economy to promote its products more widely in international markets in the era of liberal trade policy and export promotion.

Despite the result of the study, it can imply that FDI play a beneficial role to growth. The finding of this study is also supported by Uwubamwen and Ajao (2012) who examined the determinants impact of FDI in Nigeria from 1970 through 2009. As a tool for economic development and means of bridging the gaps between the rich and poor nations, their empirical analysis reveals that macroeconomic variables (exchange rate, interest rate, inflation) and openness of the economy are among the major and important factors that determine the inflow of FDI into Nigeria during these periods. Tan, Selvanathan and Selvanathan (2008) explore the causal link between FDI, domestic investment and economic growth in China and their results indicate that there is a bi-directorial causality between domestic investment and economic growth, while there is single-directional causality from FDI to domestic investment and to economic growth. However, the role of FDI on growth could be limited by human capital. Arshad and Shujaat (2011) further reported that Hermes and Lensink (2003) concluded that FDI exerts significant negative effect on the host country.

The study asserts that Nigeria economy played a major role in attracting foreign investment. This is because foreign investors will not keep investing in a country that shows no value for invested capital or shows no potential of appreciable return. Hence, this study declares that the growth in the domestic economy attracted the inflow of FDI into the Nigeria economy for the period under consideration. This shows that despite some tough business environment foreign investors may continue to invest in Nigeria, because it has a great potential and promises good returns on investment.

The result did not agree with the work of Borenztein *et al*. (1998), Oyaide (1977), Eke *et al.* (2003), and Egbo (2010), who found a positive and significant relationship between FDI and economic growth. Thus, policy makers armed with this new insight or grounded in their conviction can begin to steer the economy towards key economic objectives and improve the overall wellbeing of the State in real terms, all things being equal (Ceteri paribus). Although this study did not factor in population, with right population overtime the populace will experience improvement in her wellbeing precipitated by FDI. Nigeria population needs to also be favourable to growth. That is, it needs to be on a steady increase in the area of productive capacity characterized by high increase of per capita output and total factor productivity or labor productivity (Anyanwu and Oaikhenan: 1995) as well as ensure the general well-being of its citizens. It should be advocated that the wellbeing of the citizens should be emphasized rather than growth because growth refers to the volume of output in the current year vis- a –vis the volume of output in a chosen previous year, it overlooks the distribution to and hence the wellbeing of the citizens in the economy. Economic development is more embracing than GDP growth rate for it does not only concerns itself with issues of growth but also focuses on the distribution of proceeds of growth. The concept of economic development is generally seen to include improvements in material welfare especially for persons with lowest incomes, the eradication of mass poverty with its correlates of illiteracy, diseases and early death, changes in composition of inputs and outputs that generally include shifts in the underlying structure of production away from agricultural towards industrial activities (Kindleberger & Herrick, 1997).Thus a future improvement on this study should factor in economic development or wellbeing of its citizens relationship with FDI.

In this study the regression coefficient of inflation INF was -0.033 and the relationship between Inflation and GDP growth rate was not statically significant ($p = 0.082$). That is inflation did not impact GDP growth rate. This outcome has also been established in earlier studies. There are mixed evidences of the significance of inflation in determining FDI inflows and GDP outcome. It is to be understood that Inflation is a rise in the general level of prices of goods and services in an economy over a period. Inflation and economic growth rates are two important and most closely watched macroeconomic variables. High inflation rate is a very common phenomenon in most developing countries. Although it is

agreed between economists that countries with high inflation rates should adopt policies that lower inflation in order to promote growth. Inflation can lead to uncertainty about the future profitability of investment projects (especially when high inflation is also associated with increased price variability). This leads to more conservative investment strategies than would otherwise be the case, ultimately leading to lower levels of investment and economic growth. Inflation may also reduce a country's international competitiveness, by making its exports relatively more expensive, thus impacting on the balance of payments. Firms may have to devote more resources to dealing with the effects of inflation. Therefore, the coefficient of inflation rate is expected to be negative ($\beta 5 < 0$). Despite the result of inflation on GDP growth rate in this study, evidences abound that suggest that a low inflation rate will significantly attract FDI inflows. Thus, it is recommended in this study that further studies should be carried out to assert how inflation interacts with Nigeria economy.

4.6.2. Discussion on the Impact of FDI on GFCF

Gross Fixed Capital Formation (GFCF) is expenditure on fixed assets such as building, machinery and infrastructures; either for replacing or adding to the stock of existing fixed assets. It is a component of the expenditure on gross domestic product (GDP), and thus shows something about how much of the new value added in the economy is invested rather than consumed. Thus, its coefficient $\beta 1$, is expected to be positive i.e., $\beta 1 > 0$ and to enhance the economic growth of any nation.

The result of this study showed that FDI had a significant impact on GFCF ($p = 0.000<0.05$). The regression coefficient of FDI in the estimated regression line was 0.280 which implies that 20.85% of the increase in GFCF within the period under study was attributed to the inflow of FDI. The calculated t-statistics for the parameter estimates of foreign direct investment was 2.02 indicated that the relationship between GFCF and FDI is positive and statistically not significant ($P= 0.051$) for the period under review. The coefficient of determination of adjusted (R^2) was 0.553 which shows that 55.35% of variation in GFCF (proxy for economic growth) is caused by variations in the explanatory variables (foreign direct investment, exchange rate and inflation). It also means that less than 45% of the variation in the model is captured by the error term. The effect of FDI on GFCF is expected to be positive going by the fact that FDI between 2001 and 2007 for instance, accounted for well over half of the gross fixed capital formation (GFCF) compared to an average of about 15% in the rest of Africa and 12% for other developing countries taken as a group (UNCTAD, 2009).

The result of this finding is supported by work such as Orji and Mba (2012). According to Orji and Mba (2012), there is a relationship between foreign private investment, capital formation and economic growth in Nigeria. The study finds that the long run impact of capital formation and foreign private investment on economic growth is larger than their short-run impact. There is thus, a long-run equilibrium relationship among the variables as the error correction term was significant, but the speed of adjustment was found to be small in both models. The work of Aiyedogbon (2011) also corroborates this finding. Aiyedogbon (2011) found that Foreign Direct Investments impacts Capital Formation in Nigeria; he posits that, FDI has a significant positive contributor to the overall capital formation efforts in Nigeria.

Descriptively in Nigeria according to Kanu, Ozurumba and Anyanwu (2014), there have been tremendous growths in the rate of Gross Fixed Capital Formation in Nigeria. At constant price, the GFCF was N8.82 trillion in 1981. From 1982 to 1987 it declined until 1990 when it assumed an increasing trend again. The GFCF was N2.65 trillion in 1990. It rose to N2.97 trillion in 1993 before decreasing from 1994 to 2002. GFCF increases to N3.87 trillion in 2003 and attained highest level in 2014 at N10.57 trillion. In 2016 GFCF decreased to N2.80 trillion, incidentally, it was the year Nigeria economy was in recession. It is recommended that the value added in the Nigerian economy via FDI inflows be judiciously utilize in upgrading infrastructure particularly power and energy and other social amenities. This should go a long way to reduce the cost of doing business in Nigeria and could transform the country to a significant investment hub in Africa. It is necessary that more attention should be paid to increase production capacity through increase in the rate of fixed capital formation. If there is no increase in capital formation, growing population will simply add to the growing unemployment rate in the country. Meanwhile, development or formation of human capital is possible only through capital formation. The expenditure incurred on health, education, social service and social welfare will enhance the economic wellbeing of the citizenry.

The identified sources of financial capital formation in Nigeria are: Total national savings, Public corporation, foreign investment, Taxation and aids. As established in this study FDI impacts GFCF and greatly influenced positively the growth of the economy. To grow FDI, Asiedu (2005) remark that large local market, natural resource endowments, good infrastructure, low inflation, an efficient legal system and a good investment framework all tend to promote FDI. But where there is corruption and political instability and lack of basic infrastructure FDI promotion will be reduced and the impacts on GFCF will also be much.

There are situations, where FDI or global business changes do not translate to increase in capital of the nations. Donwa and Odia (2009), in their study of gross fixed capital formation in Nigeria from 1980 to 2006 using the ordinary least square found that globalization proxy by openness was negatively and insignificantly related to gross fixed capital formation. In other words, globalization has not helped in assisting fixed capital formation. This trend can be reverse when attempts are made to increase the production or national income of a country like Nigeria. However, this study revealed that degree of openness impact negatively on GFCF, even though it was not statistically significant at 5% level of significant ($p=0.521$). Increase in production can be made by two methods. Firstly, by expanding the production techniques and secondly, by improving the techniques. Both of these require capital. It is imperative to increase the rate of capital formation for the economic development. As a result of it, stocks of instruments and machines, etc., can be maintained, and

large-scale production can be achieved. Production can be increased in two ways; namely through capital deepening and capital widening which will lead to increase in employment opportunities.

This empirical study on the long-run determinants of FDI further provides evidence in support of the merit of FDI in bridging the gap in domestic saving and conveying great advantages to its host economy. The implication of this is that a sustainable FDI policy in Nigeria and a significant attraction of FDI into the Nigerian economy will allow for the greater integration of the country into the global economic and financial system. It will also make Nigerian economy much more competitive at the global economic arena. This should have a positive impact on employment, wealth creation and export stimulation in the country. The benefit of FDI inflows in terms of technological capabilities and efficiency spill over to indigenous industries could also serve as a spring board for increase in growth and productivity in the Nigerian manufacturing sub-sector. This may be a game changer for the country's manufacturing sector, which hitherto has remained dormant and less competitive when compared with other manufacturing industries in developed economies. The Nigerian economy should also witness significant reduction in foreign exchange shortages and significant improvement in her balance of payment position via the massive and sustained inflow of FDI. This is evident in the stability that has been achieved in the foreign exchange market in Nigeria since the introduction of Investors and Exporters window otherwise known as NAFEX by CBN in April 2017. Since the introduction of the market, it has witnessed huge inflow of foreign currency into the economy, thereby stabilizing the highly violate the exchange rate.

The gains of FDI do not come so automatically thus efforts must be directed at removing impediments like lack of transparency in governance and legal bottlenecks, especially in the areas of property rights, patent rights, copy right protection and commitment to enforcement of contracts etc. This study discovered that the regression coefficient of exchange rate (EXR) in the estimate regression line was -0.002 and the regression coefficient of inflation INF was -0.006. The regression coefficient of Degree of Openness (Export plus import/GDP) was -0.004 and the regression coefficient of Financial Deepening (Credit to private sector/GDP) was 0.054. This means that EXR did not significantly impact GFCF in the period under review. This means that inflation did not also impact GFCF under the period under review. However, a reduction in exchange rate distortions / misalignment; increase in energy supply by providing constant electricity and infrastructure to boost industrial energy consumption; and continuous minimization of foreign debts to reduce amount of national income used for debt servicing will result in gains on all sides. Apart from FDI, Ezekwesili (2012) posits that Nigeria's poor capital formation comes from low educational development of her people. She reiterated that, the resurgence of entrepreneurial spirit based on hard work and sound education are the panacea or critical factors to changing Nigeria, this assertion introduces a new area of research that needs to be investigated.

Ordinarily, gross fixed capital formation is expected to exert wide and significant influence on economic growth. Hence, its application rests mainly on the contributions of the various findings of the study to economic formulation and implementation of sound and investors' friendly policies. The impact of such policies will be appreciated from the standpoint of how rapidly and effectively it fosters, innovates or modernizes local enterprises in the respective economies. The study therefore recommended that the federal government of Nigeria should reprioritize her needs and focus on capital expenditure instead of recurrent expenditure. This will help free up the much-needed savings for investments in infrastructural development. Also, since FDI impacts GFCF freeing of gross national savings could attract foreign direct investments. Future studies on the effect of national gross earning on FDI should be verified. Savings could be used by government in ensuring that exportable commodities bring in the desired fund for development purposes. Gains from exportable commodities can be reinvested to acquire or procure needed technical tools and components. Whatever is needed to set up industries, such as provisions of basic infrastructures like good roads, electricity supply and security must be seen as a national emergency.

4.6.3. Discussion on the Impact of FDI on IIP

The result showed that jointly EXR (Exchange Rate), INF (inflation), FD (financial deepening), Degree of openness (DO), INT (Interest Rate) and FDI (Foreign Direct Investment) have effect on IIP (Index of industrial Production). The coefficient of determination (R^2) was 0.680 while the adjusted coefficient of determination (R^2) was 0.619. This shows that 61.9% of variation in IIP (proxy for economic growth) is caused by variations in the explanatory variables (Foreign Direct Investment, Exchange rate, degree of openness, interest rate, financial deepening and Inflation). It also means that about 38.1% of the variation in the model is captured by the error term. The Durbin-Watson statistics was 1.686 which shows the presence of autocorrelation in the regression equation. The value of the probability of F-stat is 0.000 which is less than 0.05. This implies that the overall regression was statistically significant at 5% level of significance. The result showed that EXR (Exchange Rate), FD (financial deepening), Degree of openness (DO), INF (inflation Rate), INT (Interest Rate) and FDI (Foreign Direct Investment) jointly influence IIP (Index of Industrial Production). We conclude thus; that the variables contained in this model has a significant relationship with the level of economic growth in Nigeria.

The findings are related to the work of Agada and Okpe (2012) who saw FDI as an attempt by individuals, groups, companies and government of a nation to move resources to the productive sector with the anticipation of earning some surplus. In other hands it points to the fact that when efforts at liberalizing the economy is being pushed without making effort to improve on the technical qualities of the tradable resources, the benefit will only accrue more to the countries with superior technology. Nigeria should ensure that the qualities of exportable commodities are improved upon to bring about international competitiveness of goods. Both the private and public-sector goods in Nigeria should have high level value addition in such a manner that investors can tap into. This can be achieved through the development of the indigenous technology.

5. Summary, Conclusion and Recommendations

5.1. Summary

The study sought to determine the effect of foreign direct investment on economic growth in Nigeria. In Nigeria, there seems to be an upward trend in both foreign direct investment and gross domestic product growth rate (GDPGR) for some years especially since the advent of democracy in 1999 coupled with increase in crude oil prices prior to 2008/2009 world economic crisis. Yet despite the upward trends observed during the period, studies conducted revealed mixed evidences on the effects of foreign direct investment on economic growth with respect to gross domestic product (GDP), gross fixed capital formation (GFCF) and Index of Industrial Production (IIP). In addition, studies in Nigeria are few on the influences of foreign direct investment on gross fixed capital formation and on index of industrial production (Otanga, Mogwambo, Patrick, Momanyi, Robert & Nyatete, 2015). To fill this knowledge, gap the question on what effect does foreign direct investment has on gross fixed capital formation, gross domestic product and index of industrial production were examined. Consequently, spurred by the benefit of the outcome of this research in helping determine whether the call for more foreign direct investment (FDI) is truly justified in the country vis a vis the cost of attracting FDI, three hypothesis and questions that seek to determine the effect of FDI on GDPGR, FDI on IIP and FDI on GFCF were proposed. Chapter one of the study gives the background to the study.

Chapter two reviewed and critiqued various literatures on FDI and economic growth. Chapter two was divided and discussed into three major sections: conceptual, theoretical and empirical framework. In the conceptual review concepts such as GDP, economic growth, FDI, were discussed. The theories of growth and investment theory: the new growth theory, the neoclassical growth model, Harrod-Domar theory of growth, the dual-gap theory, acceleration theories of investment and Keynesian theory of investment were discussed and applied to the study. The empirical works of Obida & Abu (2010); Adelakun (2010); Elias & Obi (2015); Ismaila & Imoughele (2015); Olusanya (2013); Adeleke, Olowe & Fasesin (2014); Okonkwo, Egbunike & Udeh (2015) were reviewed.

Chapter three described the structure of the research, sources of data, types and nature of variables, tools and techniques used to examine the impact of foreign direct investment in Nigeria a country. The study used ex post facto research design from Nigeria from 1981 – 2016. The study employed Ordinary Least Square multiple regressions to determine the effect of FDI on GDPGR, FDI on IIP and the effect of FDI on GFCF while Granger Causality Tests was used to test the causal relationship between the variables.

The findings revealed that FDI has a negative relationship with GDPGR, even though the impact was not statically significant at 5% level of significance (p= 0.517), regression coefficient of exchange rate (EXR) in the estimate regression line was 0.037. In the estimated regression line above, the regression coefficient of inflation INF was -0.033. The coefficient of determination (R^2) was 0.274. Adjusted coefficient of determination (R^2) was 0.124. The Durbin-Watson statistics was 2.123 which shows presence of autocorrelation in the regression equation. In other to confirm the specification status of our model, the analysis of variance or ANOVA showed an F-ratio calculated (1.833) lesser than F-ratio critical (2.59), at 5% levels of significance respectively. The value of the probability of F-stat was 0.127 which is more than 0.05. This implies that the overall regression was not statistically significant at 5% level of significance. The result showed that jointly EXR (Exchange Rate), INF (Inflation), FDI (Foreign Direct Investment), FD (Financial deepening), INT (Interest rate) and DO (Degree of Openness) have no effect on GDPGR (Gross Domestic Product Growth Rate).

While, the findings on FDI and GFCF revealed that EXR (Exchange Rate), FD (financial deepening), DO (Degree of openness), INT (Interest Rate), INF (inflation), FDI (Foreign Direct Investment) jointly influence GFCF (Gross Fixed Capital Formation) in Nigeria under the period reviewed. The regression coefficient of logFDI in the estimated regression line was 0.280, the calculated t statistics was 2.028. This shows that the relationship between logFDI and logGFCF was positive but statistically not significant (p = 0.051>0.05) for the period under review. The regression coefficient of exchange rate (EXR) in the estimate regression line was -0.002 and the regression coefficient of inflation INF was -0.006. The regression coefficient of Degree of Openness (Export plus import/GDP) was -0.004 and the regression coefficient of Financial Deepening (Credit to private sector/GDP) were 0.054. The coefficient of determination (R^2) was 0.630. Adjusted coefficient of determination (R^2) was 0.553. This shows that 55.3% of variation in GFCF (proxy for economic growth) is caused by variations in the explanatory variables (Foreign Direct Investment, Exchange rate, trade openness, financial deepening and Inflation). It also means that about 44.7% of the variation in the model is captured by the error term. The analysis of variance or ANOVA showed an F-ratio calculated (8.231) greater than F-ratio critical (2.59), at 5% levels of significance respectively. The value of the probability of F-stat is (0.000) which is less than (0.05) implies that the overall regression is statistically significant at 5% level of significance. The value of the F-statistic shows that the equation has a good fit, that is, the explanatory variables are good explainer of changes in FDI in Nigeria.

Similarly, the result showed that EXR (Exchange Rate), FD (financial deepening), Degree of Openness (DO), INF (inflation Rate), INT (Interest Rate), FDI (Foreign Direct Investment) jointly have an effect on IIP (Index of Industrial Production) in Nigeria. The relationship between IIP and exchange rate was not statistically significant (p =0.063). In the estimated regression line above, the regression coefficient of inflation INF was -0.103 and the t statistics was -0.893. The relationship between Inflation and IIP was not statically significant (p = 0.379). The regression coefficient of Degree of Openness (Export plus import/GDP) was 0.487 and the regression coefficient of Financial Deepening (Credit to private sector/GDP) was -2.200. The coefficient of determination (R^2) was 0.684. Adjusted coefficient of determination (R^2) was 0.619. This shows that 61.9% of variation in IIP (proxy for economic growth) is caused by variations in the explanatory variables (Foreign Direct Investment, Exchange Rate, Interest Rate, Degree of Openness, Financial deepening and Inflation). It also means that about 38.1% of the variation in the model is captured by the error term. In other to confirm

the specification status of our model, the analysis of variance or ANOVA showed an F-ratio calculated (10.505) greater than F-ratio critical (2.59), at 5% levels of significance respectively. The value of the probability of F-stat is 0.000 which is less than 0.05. This implies that the overall regression was statistically significant at 5% level of significance.

5.1.1. Implication of Findings

The above findings have important policy implications. Firstly, since the market size of the host country has significant effect on FDI, there is need for continuous increase and growth of the nation's Gross Domestic Products. Foreign investors will be motivated and attracted when they are certain that the host country creates the needed market for their products. This can be achieved if government creates an enabling environment (or incentives) for productive activities.

Secondly, government should make efforts to further deregulate the economy (with caution) to attract more FDI into Nigeria. Government should strengthen the political institutions and adopt democratic principles that will ensure stability within the polity. Security threats like boko haram, herdsmen menace, kidnapping and other social vices must be curtailed. The restoration of peace in the different regions of Nigeria must be seen as life and death issue. Corruption should be fought to stand still so that investors will have confidence on their investment.

Policy formulators in Nigeria need to enact some investor friendly policies that will encourage, promote and provide a conducive and enabling environment for gross fixed capital formation to thrive. The public private partnership should be vigorously be pursed with a view of attracting more investments towards the infrastructural development of the economy.

Policy makers should allow the exchange rate determinant to be driven by market forces of demand and supply as doing so will increase more foreign investments to the country. Policies that put infrastructural development as a national priority should be encouraged. Infrastructures like power, energy, transportation, telecommunication, etc should be regarded as FDI attracting friendly assets. This will enhance the competitiveness of the Nigerian environment and ultimately increase FDI inflows.

5.2. Conclusion

The study concludes that FDI affects economic growth in Nigeria through IIP and GFCF. Although the effect of FDI on GDP growth rate was not statistically significant, however increase in GDP within the period under study is still be influenced by inflow of FDI. The regression coefficient of exchange rate (EXR) in the estimate regression lines showed that about a large percentage increase GFCF within the period under study was accounted for by changes in exchange rate (EXR). Inflation, Degree of Openness (Export plus import/GDP) and Financial Deepening (Credit to private sector/GDP). In the estimated regression line above, the regression coefficient of inflation INF was -0.033 and the t statistics was 0.685 but the relationship between Inflation and GDP was not statically significant. This means that inflation did not influence GDP growth rate under the period under review. Variations of GFCF and IIP were caused by variations in the explanatory variables (foreign direct investment, exchange rate, inflation, financial deepening, interest rate and degree of openness). It also means that less than a third of the variation in the model is captured by the error term. Furthermore, increase in GFCF within the period under study was attributed to the inflow of FDI. Exchange rate did not significantly impact GFCF in the period under review. On the case of inflation and GFCF, the relationship between Inflation and GFCF was not statically significant. It was seen that variations in GFCF (proxy for economic growth) were caused by variations in the explanatory variables (foreign direct investment, exchange rate, inflation, financial deepening, interest rate and degree of openness). It can be implied from the findings that the principal determinants of FDI cut across Nigeria market size, policy deregulation, exchange rate, inflationary trend and political instability. The estimated model also provides evidence in support of the openness of the economy as a potent factor in attracting FDI inflows in Nigeria.

This empirical study on the long-run determinants of FDI further provides evidence in support of the merit of FDI in bridging the gap in domestic saving and conveying great advantages to its host economy. The implication of this is that a sustainable FDI policy in Nigeria and a sustained and significant attraction of FDI into the Nigerian economy should allow for the greater integration of the country into the global economic and financial system and making the Nigerian economy much more competitive at the global economic arena. This should have a positive impact on employment, wealth creation and export stimulation in the country. The benefit of FDI inflows in terms of technological capabilities and efficiency spill over to Nigerian indigenous industries could also serve as a spring board for the increase of productivity the manufacturing sub sector of the economy.

This evidence provide support for the effort of the Nigerian government to encourage sustained investment from foreign investors through policies that were aimed at market and trade liberalization. The result obtained further provides evidence for higher inflation in the long-run in the country. This may possibly be due to the effect of a weak domestic currency which may be the result of high volume of domestic money supply and the expansion in the economy. One of the ways to sustain FDI is that gains from exportable commodities be reinvested to acquire or procure needed technical tools and components, provisions of basic infrastructures like good roads, electricity supply and security that can increase the productive capacity of Nigeria through the established industries.

5.3. Recommendations

Based on the findings of this research; we proffer the following recommendations: It is hoped that the measures will help to improve the level of gross domestic product growth rate, index of industrial production and gross fixed capital formation in Nigeria and thus, provide a consequent boost to Nigeria's' economic growth and development as well as the economy of sub-Sahara Africa.

Nigeria is mono economy, oil dominated thus oil has dominated FDI inflows in the country since the 1970's while the inflows in the non-oil sector was hampered by restriction in favour of nationalization up until the 1990's when it was relaxed and coupled with an unattractive business climate as well as political and economic uncertainties. Thus, it will be expedient for the Nigerian economy to pursue a sustained FDI policy and appropriate strategies and framework to continuously make the Nigerian economy an investment hub and hence attracting more FDI into the country. Records have it that in West Africa, Nigeria has continued to be dominant recipient of FDI and among the top three recipients in the continent (CBN publications).

The level of economic growth in Nigeria bears a significant relationship with gross fixed capital formation in both the short and long runs and so desires a closer watch for improved economic performance. There is urgent need to strengthen the investment environment by reducing the obstacles to doing business, improving economic management, stemming the tide against international financial crimes, repositioning investment agencies and export promotion schemes, strengthening intellectual's property and commitment to democratic principles in the country. This is to increase Nigerian's share of FDI inflows.

Efforts must be made to mobilize the desired level of gross national savings that could be big enough to attract foreign direct investments. This is very vital as FDI will help to complement our domestic savings. Government should work on the potential exportable commodities, the proceeds of which should be utilized in the procurement of needed technical tools and components. It is recommended that the value added in the Nigerian economy via FDI inflows be judiciously utilize in upgrading infrastructure particularly power and energy and other social amenities. This should go a long way to reduce the cost of doing business in Nigeria and could transform the country to a significant investment hub in Africa.

The study showed that exchange rate played a role influencing economic growth, thus efforts should be geared towards a reduction in exchange rate distortion, volatility and general mismanagement. There is also the need to reduce the level of capital flight out of country. Inflows should be tied to specific, relevant and purposeful projects. This would help to create employment opportunities in the long run.

Also, effort must be made to improve on the effectiveness of Nigeria's Degree of Openness (Export plus import/GDP) as well as its Financial Deepening (Credit to private sector/GDP). The Federal Government of Nigeria should reprioritize her needs. The openness of trade is significant based on the need to have more competitive products at the international markets for the foreigners to begin to demand for more of Nigeria's exportable commodities. Government at all levels should spend more on capital expenditures as against the current trend of allocating less 30% of the nation's budget on capital expenditures. Prudence and proper accountability should be the watchword in the management of accruals from official capital inflows and transfers. Such monies are expected to be channelled into productive ventures by the governments in power and not for profligacy. Macroeconomic projections should guide the overall level of expenditure. As such, their projections need to be more realistic, internally consistent and based on more accurate and timely information.

Policy formulators in Nigeria need to enact some investor friendly policies that will encourage, promote and attract more capital inflows (Be it official or private inflows) and to provide a conducive and enabling environment for gross fixed capital formation to thrive.

The study further recommends the need for government to vigorously pursue trade liberalization policy in such a way that the domestic economy is not hampered and the openness of the economy is guaranteed. Efforts should be geared towards attracting to FDI inflows especially in the manufacturing, agricultural and other non-oil sub-sectors of the Nigerian economy.

5.4. Contribution to Knowledge

This study has shown that FDI influences economic growth but more importantly the study has made significant and important contributions to knowledge in the following ways:

The study reviewed various concepts used in this study. It also shows wide range of scholars and authors all around the world that supported the concept. However, the contribution of the study to concepts is premised on the fact that known definition and understanding towards a much integral and related view of economic growth and FDI has been established in this study. Although the review of the literature provided very important background to the different concepts of inflation, FDI, economic growth but major concepts such GDP growth rate, GFCF and IIP, and how it brings about economic growth were extended upon.

In contribution to theory, the study has confirmed the validity and relevance of theories of the new growth, neoclassical growth model and the endogenous growth. These theories emphasized the importance of financial intermediaries in enhancing economic growth through its influence on savings and investment decision and liberalization of economy. According to Satope (2014) the theory equally shows that economic growth performance is related to financial development, technology and income distribution. This was also shown to be related in this study. Another aspect the study contributed to theory is in the Dual-gap theory. The dual-gap analysis provides a framework that shows that the development of any nation is a function of investment and that such investment requires domestic savings which is not sufficient to ensure that development take place (Oloyede, 2002). Thus, going by the dual-gap theory been a link to a national income accounting identity and excess investment expenditure (investment-savings gap), it shows that FDI played a role in economic growth and development.

In the area of empirical studies, the study has advance and established the some of the earlier notion by researchers on FDI and Economic growth. Also, the study further revealed empirically that a change in FDI will bring a

change in economic growth in IIP and GFCF. This result had added and given strength to pre - existing empirics such as that of Adelakun (2010); Ismaila & Imoughele (2015); Olusanya (2013) on the same phenomenon.

5.5. Limitation of the Study

One of the major limitations of the study is that it focused only on country. The study only evaluated the impact of foreign direct investment in Nigeria, leaving other countries that make up Sub Sahara Africa. Another limitation was that study is only limited to the variables used, and the period covered.

5.6. Suggestion for Further Studies

The limitation of this study has motivated some suggestions for further research as stated below.

- This research work has investigated the relationship between foreign direct investment and economic growth using GDP growth, GFCF and IIP as a measure of economic growth. A future improvement on this study should factor in the relationship between FDI and economic development or wellbeing of its citizens.
- Thus, it is recommended in this study that further studies should be carried out to assert how inflation interacts with Nigeria economy as the result of the study shows negative relationship between inflation and the nation's economy.
- This study is limited to Nigeria. Further research can be conducted using more countries within the Sub Sahara region.
- The study is also limited to the number of variables used; this can be expanded to include more variables in future.

6. References

i. Abbas, Q., Akbar, S., Nasir, A. S., Ullah, H. A. & Naseem, M. A. (2011). Impact of foreign direct investment on gross domestic product. *Global Journal of Management and Business Research,* 11(8), 35-40.
ii. Adelakun, O. J. (2010). Financial sector development and economic growth in Nigeria, *International Journal of Economic Development Research and Investment, 1(1)*.
iii. Adeleke, K. M., Olowe, S.O. & Fasesin, O.O. (2014). Impact of foreign direct investment on Nigeria economic growth. *International Journal of Academic Research in Business and Social Sciences, 4(8),* 29.
iv. Adelowokan, O. A. & Maku, A. O (2013). Trade openness, foreign investment and economic growth in Nigeria: A long-run analysis. *European Journal of Globalization and Development Research, 7(1),* 22.
v. Adeniran, J. O., Yusuf, S. A & Adeyemi, O. A. (2014). The Impact of exchange rate fluctuation on the Nigerian economic growth: An empirical investigation. *International Journal of Academic Research in Business and Social Sciences 4(8), 456-234*
vi. Adewunmi, S. (2006). The impact of FDI on growth in developing countries: An African experience. Retrieved from https://www.diva-portal.org/sash/g t/div2:44 0/fulltext01.f
vii. Adofu, I. (2010). Accelerating economic growth in Nigeria. The role of foreign direct investment. *Curr. Res. J. Econ. Theory*. 2(1), 11-15.
viii. Aigbokhan, B. E. (1995). *Macroeconomic: Theory policy and evidence*. Benin City: Idenijies Publishers.
ix. Ajide, K. B. (2014). Determinants of economic growth in Nigeria. *CBN Journal of Applied Statistics, 5(2).*
x. Akinlo, A. E. (2004). Foreign direct investment and growth in Nigeria. An empirical investigation. *Journal of Policy Modeling* 26, 627–639
xi. Akinyosoye, M. (2010). Infrastructure development in Nigeria: Road map to sustainable development. Retrieved from http://greenhillts.com/yahoo_siteadmin/assets/docs/nigeria_infrastructure_development_in_nigeria.31715406.pdf
xii. Alege, P. O. & Ogundipe, A. A. (2013). Foreign Direct investment and economic growth in ecowas: A System-Gmm Approach. *Covenant Journal of Business and Social Sciences (CJBSS), 5(1)*.
xiii. Alfaro L. (2003). Foreign direct investment and growth, does the sector matter? Retrived from www.people.hhb.edu
xiv. Alfaro, L. (2003). Foreign direct investment and growth, does the sector matter. Retrieved from www.grips.ac.jp/teacher/oono/hp/docu01/paper14.f
xv. Aliyu, S. R. U. (2011). Impact of oil price shock and exchange rate volatility on economic growth in Nigeria: An empirical investigation. *Research Journal of International Studies, 3(5), 234 -125*
xvi. Amidu, A., Aluko, B. T. Nuhu, M. B. & Saibu M. O. (2008). Real estate security and other investment assets: A comparison of investment characteristics in the Nigerian stock markets. Retrieved on February 14, 2016 from *unilag.edu. ng/opend oc.php?..Real %20 Estate%20Security%20and%20Ot..*
xvii. Antwi, S., Mills, E.F & Zhao, X. (2013), Impact of macroeconomic factors on economic growth in Ghana: A Cointegration Analysis. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 3 (1), 35–45
xviii. Asiedu, E. (2002). On the determinants of foreign direct investment to developing countries: Is Africa different? *World Development*. 30(1), 107- 119.
xix. Asiedu, E. (2003). *Foreign direct investment to Africa: The role of government policy, governance and political instability*. Kansas: University of Kansas Publications.

xx. Audu, I. (2004). The impact of external debt on economic growth and public investment: The Case of Nigeria. African institute for economic development and planning (IDEP) Dakar Senegal. http://www.unidep.org

xxi. Ayanwale, A. B., 2007, *FDI and Economic Growth: Evidence from Nigeria*, AERC Research Paper 165, African Economic Research Consortium, Nairobi. Retrieved February 18, 2016 from opendocs.ids.ac.uk › ... ›African Economic Research Consortium

xxii. Azeez, B., Oladapo, F. & Aluko, O. (2015). External debt or foreign direct investment: Which has greater significant economic impact on Nigeria? *European Scientific Journal*, l1(1), 19.

xxiii. Badeji, B. O. & Abayomi, O. M. (2011). The impact of foreign direct investment on Economic Growth in Nigeria. Retrieved on February 28, 2016 from: http: /www. study mode.com essays/the-impact-of-foreign-direct-investment-627288.html.

xxiv. Basu, A. & Srinivasan, K. (2002) Foreign direct investment in Africa: some case studies, International Monetary Fund Working Paper, 2, 61.

xxv. Berthelemy, J., & Demurger, S. (2000). Foreign direct investment and economic growth:

xxvi. Bevan & Estrin (2000). The determinants of foreign direct investment in transition economies., Retrieved on February 22, 2016 from *citeseerx.ist. psu.edu/ view doc/ownload ?do i10.1.1.124.8766*

xxvii. Bhavish, J. , Nitisha, C., & Sheereen, F. (2016). Foreign Direct Investment & Economic Growth in Sub Saharan Africa: An Empirical Study. *Theoretical Economics Letters*, 6

xxviii. Blonigen, B. A. (2005). A review of the empirical literature on FDI determinants. *Atlantic Economic Journal, 33*(12), 383-403.

xxix. Bora B. (2002*). Foreign Direct Investment Research Issues*. Routledge London, New York

xxx. Bora, B. (2002). Investment Distortions and the International Policy Architecture, World Trade Organisation, Working Paper, geneva, mimeo.

xxxi. Council of Economic Advisers (CEA, 2015). A better measure of economic growth: Gross domestic output (GDO). Retrieved from https://www. whitehouse. gov/ sites /de fault /files/docs/gdo_issue_brief_final.f

xxxii. Demirhan, E. & Masca, M. (2008). Determinants of foreign direct investment flows to developing countries: A Cross-Sectional Analysis. Retrieved on February 28, 2016 from https://www.vse.cz/polek/download.php?jnl=pep&pdf=337.pdf

xxxiii. Demirhan, E. & Masca, M. (2008). Determinants of foreign direct investment flows to developing countries: A cross-sectional analysis. Retrieved on February 28, 2016 from https://www.vse.cz/polek/download.php?jnl=pep&pdf=337.f

xxxiv. DosseToulaboe, D., Terry, R. & Johansen, T. (2008). Foreign direct investment and economic growth in developing countries. Retrieved from http://www.ser.tcu.edu

xxxv. Dunning, J. H. (2002). *Theories and paradigms of international business activity*. Cheltenham, UK: Edward Elger

xxxvi. Dunning, J. H. (1993). Multinational enterprises and the global economy. Harlow, Essex: Addison Wesley publishing Co.

xxxvii. Dunning, J. H. (2002). Theories and paradigms of international business activity. Cheltenham, UK: Edward Elger

xxxviii. Ebekozien, A., Ugochukwu, S. C. & Okoye, P. U. (2015). An analysis of the trends of foreign direct investment inflows in the Nigerian construction sector. *American International Journal of Contemporary Research, 5, 1*.

xxxix. Edoumiekumo, S. G & Opukri, C. O (2013). Economic growth factor in Nigeria: The role of global trade. *American Journal of Humanities and Social Sciences,* 1(2), 51-55

xl. Ekpo, A. H. (1995). Foreign direct investment: Evidence from time series data. *CBN Econ. Financial Rev*., 35(1), 59-78.

xli. Elbadawi, I. & Mwega, F. (1997). Regional integration, trade, and foreign direct investment in sub-saharan Africa', in Iqbal and M. Khan (eds.), *Trade Reform and Regional Integration in Africa*. Washington, DC: IMF

xlii. Elias, A. U. & Obi, K. O. (2015). *Determinants of economic growth in Nigeria: Evidence from error correction model approach*. Retrieved from www. iiste.org /Journals /index. Php /dcs/article/viewfile/22077/22663

xliii. Fabienne, F. (2007). Foreign direct investment and host country economic growth: Does the investor's country of origin play a role? *Transnational Corporations*, 16(2), 8

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

xlv. Faroh, A. & Shen, H. (2015). Impact of interest rates on foreign direct investment: Case Study Sierra Leone Economy. *International Journal of Business Management and Economic Research(IJBMER), 6(1),124-132*,

xlvi. Gallagher, K.P. & Zarksy, L. (2007). The enclave economy: foreign investment and sustainable development in mexico's sillicon valleys. Cambridge: The MIT Press,

xlvii. Godwin, M. (2007). A Survey of Economic Growth. *Economic Record,* 79 (244),112-135

xlviii. Gropp R. & Kostial K. (2000) *The Disappearing Tax Base: Is Foreign Direct Investment* (*FDI*) *Eroding Corporate Income Taxes?*, IMF Working Paper, WP/00/173, Washington, D.C.

xlix. Hansen, H. & Rand, J. (2006). On the casual links between fdi and growth in developing countries. The World Economy, 29, 21.

l. Hossain, A.(2016). Introduction to investment. Retrieved on February 22, 2016 from http://mahiiuc.weebly.com/uploads/4/5/9/2/45926123/introduction_to_investment.f

li. Imimole, B. & Imuoghele, L .E (2012). Impact of public debt on an emerging economy: Evidence from Nigeria (1980 – 2009). *International Journal of Innovative Research and Development*, 1(8).

lii. Ismaila, M. & Imoughele, L .E (2015). Macroeconomic determinants of economic growth in Nigeria: A Co-integration Approach. *International Journal of Academic Research in Economics and Management Sciences, 4(1).*

liii. Jones G. (1996). *The evolution of international business: an introduction*. London: Routrdge Ltd.

liv. Juma, M. (2012). *the effect of foreign direct investment on growth in Sub-Saharan Africa*. Dowen: Amherst College Publications

lv. Kaur, M., Yadav, S. S. & Gautam, V. (2012). Foreign direct investment and current account deficit- A causality analysis in context of India. *Journal of International Business and Economy* 13(2), 85-106

lvi. Kornecki, L. (2008). FDI in central and eastern Europe: business environment and current FDI trends in Poland. Retrieved on February 23, 2016 from http: //www .abri.com/m anuscripts/09348.f

lvii. Kosack, S. & Tobin, J. (2006). Funding self-sustaining development: The Role of aid, FDI and government in economic success. *International Organization Foundation, 60,* 1-40.

lviii. Kothari, C. R. (2004). Research methodology: methods and techniques. New Delhi: *New Age International Publishers.*

lix. Kudaisi, B. V. (2014). An empirical determination of foreign direct investment in west Africa countries: A panel data analysis. *International Journal of Development and Economic Sustainability, 2(2), 19-36*.

lx. Lall (2002). *Foreign investment transactional and development countries*. London: Macmillan Press Ltd.

lxi. Levine, R. (2012). Financial development and economic growth: Theory. Retrieved from http: th annaletchimy.webs.com

lxii. Lipsey, R. E. & Sjoholm, F. (2004). The impact of inward fdi on host countries: Why such different answers? Retrieved on February 27, 2016, from http: /www.i e. com /publica tions/chapters_preview/3810/02iie3810.pdf.

lxiii. Loungani P. & Razin, A. (2001). How beneficial is foreign direct investment for developing countries?' *Finance and development, 21(38), 2*

lxiv. Mahmood, H. & Chaudhary, A. R. (2013). Impact of FDI on tax revenue in pakistan, *Pakistan Journal of Commerce and Social Sciences,* 7(1), 59-69.

lxv. Maku, O. E. (2015) Macroeconomic consequences of foreign direct investment in Nigeria: An empirical analysis. *European Journal of Business and Management, 7(22), 423-256*

lxvi. Michalowski, T. (2012). Foreign direct investment in Sub-Saharan Africa and its effects on economic growth of the region. Retrieved on February 20, 2016 from https://ekonom.ug.edu.pl/web/download.php?OpenFile=970

lxvii. Miraskari, S. R, Masouleh, M. S. & Alavi, S. A. (2014). Analyzing impacts of foreign direct investment on private sector in economic growth of Iran. *International Journal of Academic Research in Business and Social Sciences, 4(11)*

lxviii. Mona, H. (2015). *Does foreign direct investment generate economic growth in Sub-saharan* Africa. UK: Sodertorn University Publications

lxix. Nnadozie, E. U. (2003). Does trade cause growth in Nigeria, *Journal of African Finance and Economic Development, 6 (1).*

lxx. Oba, U. O. & Onuoha, B. C. (2013). The determinants of foreign direct investments (FDIs) and the Nigerian economy. *American International Journal of Contemporary Research, 3 (11)*

lxxi. Obi, J. N. (2012). Investment Management Analysis II. School of Management Sciences. Retrieved on February 12, 2016 from www .nou. edu. ng/... /ent332 investment manag

lxxii. Obida, G. W. & Abu, N. (2010). Determinants of foreign direct investment in Nigeria: An Empirical Analysis, *Global Journal of Human Social Science, 10(1)*.

lxxiii. Ogundele O. J. K. & Opeifa, A. Z (2004). The Influence of External Political Environment on the processes of Entrepreneurship. *The Nigerian Academic Journal, 7(5), 410*

lxxiv. Ogunleye, O. (2014). *The effect of foreign direct investment: Case Study Nigeria*. Retrieved on February 29, 2016 from www.herkules.oulu.fi/thesis/nbnfioulu-201406101751.pdf

lxxv. Oke, M. O. & Sulaimon, L. A. (2012). External debt, economic growth and investment in Nigeria. *European Journal of Business and Management, 4(11),* retrieved April 2, 2016 from www.iiste.org/Journals/index.php/EJBM/article/download/2462/2484

lxxvi. Okonkwo, R. I, Egbunike, F. C. & Udeh, F. N. (2015). Foreign direct investment and economic growth in Nigeria. *Developing Country Studies, 5(9*).

lxxvii. Oloyede, B. (2002). *Principles of international finance*. Lagos: Forthright Educational Publishers, Lagos.

lxxviii. Olusanya, S. O. (2013). Impact of foreign direct investment inflow on economic growth in a Pre and post deregulated Nigeria economy. A granger causality test (1970-2010), *European Scientific Journal, 9(25)*, 24-4518.

lxxix. Onakoya, A. B., Salisu, A. A. & Oseni, I. O. (2012). Infrastructure and economic growth in Nigeria: A multivariate approach. *Research Journal of Business Management and Accounting,* 1(3), 30–39,

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

lxxxi. Organisation for Economic Co-Operation and Development (OECD) (2002) Foreign Direct Investment for Development: Maximizing benefits, minimizing costs. Retrieved February 26, 2016 from www.oecd.org/investment/investmentfordevelopment/1959815.pdf

lxxxii. Otanga, G. K., Mogwambo, A.V., Patrick, O. Momanyi, G. Robert, N. & Nyatete, P.K. (2015). Contribution of foreign direct investment on the growth of agro-processing sector: A case of selected agro-processing companies in Kenya. *European Journal of Business and Management, 7(18),* 560-423.

lxxxiii. Otepola, A. (2002). FDI as a factor of economic growth in Nigeria. Retrieved on February 27, 2016 from idep@unidep.org, http://www.unidep.org.

lxxxiv. Pigka-Balanika, V. (2014). The Impact of trade openness on economic growth: Evidence in developing countries.. Retrieved on April 1, 2016 from https: /the is.eu .n l/p b/1 590 5/ 356613-Pigka-Balanika.pdf

lxxxv. Ramzan, D. & Kiani, A. K. (2012) Analyzing the relationship between FDI, trade openness and real output growth: An ECM application for Pakistan. *International Journal of Basic and Applied Science, 1 (2)*.

lxxxvi. Rogoff, K. & Reinhart, C. (2003). FDI to Africa: the role of price stability and currency instability. *IMF Working Paper WP, 03, 10*

lxxxvii. Saibu, M. O. & Akinbobola, T. O. (2014). Globalization, foreign direct investment and economic growth in sub Saharan Africa. *Journal of Economics and International Finance, 6(3), 62-68.*

lxxxviii. Sanusi, L. S. (2012). The role of development finance institutions in infrastructure development: What Nigeria can learn from the India infrastructure finance company. Retrieved on February 28, 2016 from www.blueprintng.com/cbn-blames-slow-economic-growth-on-poor-infrastructure

lxxxix. Sarumi, A. (2006). The impact of FDI on growth in developing countries: an African experience. O n k ö p i n g: ö n k ö p i n g i n t e r n a t i o n a l b u s i n e s s s c h o o l Publications

xc. Satope, B. F. (2014). Finance, development and growth in Nigeria: Obstacles, steps adopted and DOHA recommendation. *Merit Research Journal of Accounting, Auditing, Economics and Finance, 2(2) 012-021*.

xci. Shiro, A. A. (2009). The impact of FDI on the Nigerian economy. Retrieved on February 28, 2016 from www.unilag.edu.ng/researchview

xcii. Shittu, A. I. (2012). Financial intermediation and economic growth in Nigeria. *British Journal of Arts and Social Sciences, 4(2), 178*

xciii. Sichei, M. M. & Kinyondo (2012). Determinants of foreign direct investment in Africa: A panel data analysis. *Global Journal of Management and Business Research*, 12(18), 10.

xciv. Sukar, A., Ahmed, S. & Hassan, S. (2007). The effects of foreign direct investment on economic growth: The Case of Sub-Sahara Africa. South *western Economic Review*, 4(1)

xcv. Sunday, K. U. (2012). *The impact of interest rates on savings and investment in Nigeria*. Retrieved on February 14, 2016 from http:/ /www.u nn.ed .ng/publication s/file s/i ma ges/Sunday/kingsley/uchE.f theory and application to China. *Review of Development Economics*, 4(2)

xcvi. Todaro, P. M. & Smith, C.S. (2009). Economic development, 11th edition. UK: Addison Wesley.

xcvii. Udjo, E .O., Simelane, S. & Booysen, D. (2000). Socio-economic indicators of development progress within the OECD framework in South Africa. Retrieved on February 27, 2016 from www.statssa.gov.za

xcviii. Udoye, R. A. (2009). The determinants of exchange rate in Nigeria. Retrieved on April 5, 2016 from http://www.unn. edu.ng/publications/ files/images/the determinants of exchange rate in Nigeria.

xcix. Ullah, F. & Rauf, A. (2013). Impacts of macroeconomic variables on economic growth: A panel data analysis of selected Asian Countries. *GE-International Journal of Engineering Research*, 2(5), 245

c. Uma, K. E., Eboh, F.E & Nwaka, I.D. (2015). Foreign direct investment and resources utilisation: implications for Nigeria's economic development. *British Journal of Economics, Management & Trade, 6(2), 112-128*,

ci. Umah, K. E., (2007). The impact of foreign private investment on economic development of Nigeria. *Nigeria Journal of Economic and Financial Research. 1(3).*

cii. United Nations (2002). *World investment report 2002: Transnational corporations and export competitiveness.* Retrieved on February 18, 2016 from *unct ad. Org/en /docs/ wir 2002 _en.*

ciii. United Nations conference on Trade and Development (UNCTAD, 2006). Foreign Direct Investment. Retrieved from Online http//www.unctad.org

civ. United Nations, (1999). World investment report 1999: Foreign direct investment and the challenge of development. Retrieved on February 23, 2016 from *unc ta d.o rg / en /Do cs /wir1999_en.*

cv. United Nations, (2003). FDI policies for development: National and International perspectives.. Retrieved on February 18, 2016 from http://unctad.org/en/Docs/wir2003_en.pdf

cvi. United Nations, (2005). Economic development in Africa, rethinking the role of Foreign Direct Investment. Retrieved on March 19, 2016 from http: //unc tad. org/ en/ Doc s/gds afri ca2 0051_en.f

cvii. Utomi, O. W. (2014). The impact of external debt on economic growth in Nigeria (1980-2012). Retrieved on March 22, 2016 from eprints. Covenant university. Edu.ng/../Externa l/debt/andgrowt...

cviii. Wacziarg, R. (2001). Measuring the dynamic gains from trade. *World Bank Economic Review* 15, 393-429

cix. Wajid, A. S. & Zhang, X. Y.(2017), Contribution of FDI in economic growth an empirical study on Pakistan. *International Journal of Economics, Commerce and Management*,5(2), 2348 - 0386

cx. Wei, S. J. & Shleifer, A. (2000). Local corruption and global capital flows. *Brookings Paper on Economic Activity, 3*(2), 3-354

cxi. Yaqub, J. O. (2011). Exchange rate changes and output performance in Nigeria: A sectorial analysis. *Pakistian Journal of Social Sciences*, 7(5), 12-19.

cxii. Zafar, I. & Zahid, G. (2013). Macroeconomic determinants of economic growth in Pakistan. *The Pakistan Development Review,* 37 (2), 125—148

Appendix

Pairwise Granger Causality Tests			
Sample: 1981 2016			
Lags: 2			
Null Hypothesis:	**Obs**	**F-Statistic**	**Prob.**
INF does not Granger Cause GDPGR	34	0.37947	0.6876
GDPGR does not Granger Cause INF		1.61606	0.2161
INT does not Granger Cause GDPGR	34	2.23531	0.1251
GDPGR does not Granger Cause INT		0.52675	0.5961
DO does not Granger Cause GDPGR	34	1.75553	0.1907
GDPGR does not Granger Cause DO		0.60238	0.5542
EXR does not Granger Cause GDPGR	34	1.31469	0.2841
GDPGR does not Granger Cause EXR		0.25303	0.7781
FD does not Granger Cause GDPGR	34	0.02319	0.9771
GDPGR does not Granger Cause FD		0.10656	0.8993
FDI does not Granger Cause GDPGR	34	0.92745	0.4070
GDPGR does not Granger Cause FDI		3.03409	0.0636

Table 15: Granger Cause Test on GDPGR

Pairwise Granger Causality Tests			
Sample: 1981 2016			
Lags: 2			
Null Hypothesis:	**Obs**	**F-Statistic**	**Prob.**
INF does not Granger Cause GFCF	34	0.06440	0.9378
GFCF does not Granger Cause INF		0.33797	0.7160
INT does not Granger Cause GFCF	34	0.31930	0.7292
GFCF does not Granger Cause INT		0.84868	0.4383
DO does not Granger Cause GFCF	34	0.85212	0.4369
GFCF does not Granger Cause DO		2.06566	0.1450
EXR does not Granger Cause GFCF	34	2.28769	0.1195
GFCF does not Granger Cause EXR		0.69080	0.5092
FD does not Granger Cause GFCF	34	1.51462	0.2368
GFCF does not Granger Cause FD		3.68894	0.0374
FDI does not Granger Cause GFCF	34	12.0369	0.0002
GFCF does not Granger Cause FDI		0.51090	0.6053

Table 16: Granger Cause Test on GFCF

Pairwise Granger Causality Tests			
Sample: 1981 2016			
Lags: 2			
Null Hypothesis:	**Obs**	**F-Statistic**	**Prob.**
INF does not Granger Cause IIP	34	0.73475	0.4883
IIP does not Granger Cause INF		0.67657	0.5162
INT does not Granger Cause IIP	34	3.52182	0.0427
IIP does not Granger Cause INT		0.11338	0.8932
DO does not Granger Cause IIP	34	0.25454	0.7770
IIP does not Granger Cause DO		1.06451	0.3580
EXR does not Granger Cause IIP	34	0.71108	0.4995
IIP does not Granger Cause EXR		0.01684	0.9833
FD does not Granger Cause IIP	34	0.60985	0.5503
IIP does not Granger Cause FD		0.92122	0.4094
FDI does not Granger Cause IIP	34	0.79556	0.4609
IIP does not Granger Cause FDI		2.05492	0.1464

Table 17: Granger Cause Test on IIP

Null Hypothesis: Unit Root (Individual Unit Root Process)				
Series: EXR, FD, GDPGR, IIP, INF, INT, LOGFDI, DO, LOGGFCF				
Sample: 1981 2016				
Exogenous variables: Individual effects				
Automatic selection of maximum lags				
Automatic lag length selection based on SIC: 0 to 1				
Total number of observations: 314				
Cross-sections included: 9				
Method			Statistic	Prob.**
ADF - Fisher Chi-square			37.7464	0.0042
ADF - Choi Z-stat			-1.24553	0.1065
Intermediate ADF test results UNTITLED				
Series	Prob.	Lag	Max Lag	Obs
EXR	0.9982	0	8	35
FD	0.9216	0	8	35
GDPGR	0.0004	0	8	35
IIP	0.3765	0	8	35
INF	0.0662	0	8	35
INT	0.0168	0	8	35
LOGFDI	0.7502	1	8	34
DO	0.1916	0	8	35
LOGGFCF	0.2820	0	8	35

Table 18: Unit Root Test