

# **IMPACT OF FOREIGN DIRECT INVESTMENT INFLOW ON ECONOMIC GROWTH IN A PRE AND POST DEREGULATED NIGERIA ECONOMY. A GRANGER CAUSALITY TEST (1970-2010)**

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## **Abstract**

The research study takes a look 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 between 1970 - 2010. However, the analysis de-aggregates the economy into three period; 1970 to 1986, 1986 to 2010 and 1970 to 2010, to test the causality between foreign direct investment inflow (FDI) and economic growth (GDP). However, 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 FDI, 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.

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**Keywords:** Economic Growth, Foreign direct investment inflow, deregulated Economy, Granger Causality test

## **Introduction**

An agreed framework of foreign direct investment exists in the literature that is foreign direct investment (FDI) is an investment made to acquire a lasting management interest (normally 10% of voting stock) in a business enterprise operating in a country other than that of the investor defined according to residency (World Bank, 1996). Such investment may take the form of either “Greenfield” investment (also called mortar and brick

investment) or merger and acquisition (M&A), which entails the acquisition of existing interest rather than new investment.

In corporate governance, ownership of at least 10% of the ordinary shares of voting stock is the criterion for the existence of a direct investment relationship. Ownership of less than 10% is recorded as portfolio investment. Foreign direct investment comprises not only merger and acquisition and new investments, but also reinvested earnings and loans and similar capital transfer between parent companies and their affiliates. Countries could be host to foreign direct investment projects in their own countries and a participant in investment projects in other countries. A country's inward foreign direct investment position is made up of the hosted foreign direct investment projects, while outward foreign direct investment comprises those investment projects owned abroad.

One of the most salient features of today's globalisation drive is conscious encouragement of cross-border investments, especially by transactional corporations and firms (TNC's). Countries and continents (especially developing) now see attracting foreign direct investment as an important element in their strategy for economic development. This is most probably because foreign direct investment is seen as an amalgamation of capital, technology, marketing and management.

However, sub-saharan Africa as a region now has to depend very much on foreign direct investment for so many reasons some of which are amplified by Asiedu (2001). The preference for foreign direct investment stems from its acknowledged advantages (Sjoholm, 1999; Obwona, 2001, 2004). The effort by several African countries to improve their business climate stems from the desire to attract foreign direct investment. In fact, one of the pillars on which the new partnership for Africa's development (NEPAD) was launched was to increase available capital to \$64billion US dollars through a combination of reforms, resource mobilisation and a conducive environment for foreign direct investment (Funke & Nsouli, 2003)

Unfortunately, the efforts of most countries in Africa to attract foreign direct investment have been futile. This is in spite of the perceived and obvious need for foreign direct investment in the continent. The development is disturbing, sending very little hope of economic development and growth for these countries. Further, the pattern of the foreign direct investment that does exist is skewed towards the extractive industry, meaning that the differential rate of foreign direct investment inflow into sub-Saharan African countries have been adduced to natural resources although the size of the local market may also be a consideration.

However, Nigeria as a country, given her natural resource base and large market size qualifies to be a major recipient of foreign direct investment in Africa and indeed is one of the top leading African countries

that have consistently attracted foreign direct investment in the last decade. However, the level of foreign direct investment attracted by Nigeria is mediocre (Asiedu, 2003) compared with the resource base and potential need. Further, the empirical linkage between foreign direct investment and economic growth in Nigeria is yet unclear; despite numerous studies that have examined the influence of foreign direct investment on Nigeria's economic growth with varying outcomes (Oseghale & Amonkhienam; 1987; Odozi, 1995; Adelegan, 2000; Akinlo, 2004; Ayanwale, 2007). Most of the previous influential studies on foreign direct investment and growth in sub-Saharan African countries are multi country studies.

However, recent evidence affirms that the relationship between foreign direct investment and growth may be country and period specific (Asiedu, 2001) submits that the relationship between foreign direct investment in one region may not be the same for other regions. In the same vein, the determinants of foreign direct investment in countries within a region may be different from one another and from one period to another.

The results of studies carried out on the linkage between foreign direct investment and economic growth are not unanimous in their submissions. A closer examination of these previous studies reveals that conscious effort was not made to take care of the fact more than 60% of the foreign direct investment inflows into Nigeria is made into the extractive (oil) industry. Hence, these studies actually modelled the influence of natural resources on Nigeria's economic growth.

In addition, the impact of foreign direct investment on economic growth is more contentious in empirical than theoretical studies, hence the need to examine the relationship between foreign direct investment and economic growth in different economic dispensations. There is the further problem of endogeneity, which has not been consciously tackled in previous studies in Nigeria. Foreign direct investment may have a positive impact on economic growth leading to an enlarged market size, which in turn attracts further foreign direct investment.

Finally, there is an increasing resistance to further liberalization within the economy. This limits the options available to the government to source funds for development purposes and makes the option of seeking foreign direct investment more critical.

### **Literature Review And Theoretical Framework**

Renewed research interest in foreign direct investment stems from the change of perspective among policy makers from "hostility" to "conscious encouragement", especially among developing countries. Foreign direct investment had been seen as "parasitic" and retarding the development of domestic industries for export promotion until recently. However, Bende-Nabende and Ford (1998) submit that the wide externalities in respect of

technology transfer, the development of human capital and the opening up of the economy to international forces, among other factors, have served to change the former image.

Caves (1996) observes that the rationale for increased efforts to attract more foreign direct investment stems from the belief that foreign direct investment has several positive effects. Among these are productivity gains, technology transfers, the introduction of new processes, managerial skills and know how in the domestic market, employee training, international production networks, and access to markets.

Borenstein et al (1998) sees foreign direct investment as an important vehicle for the transfer of technology, contributing to growth in larger measure than domestic investment. Findlay (1978) postulates that foreign direct investment increases the rate of technical progress in the host country through a “contagion” effect from the more advanced technology , management practices and so on, used by foreign firms.

On the basis of these assertions, governments have often provided special incentives to foreign firms to set up companies in their countries. Carkovic and Levine (2002) note that the economic rationale for offering special incentives to attract foreign direct investment frequently derives from the belief that foreign investments produces externalities in the form of technology transfers and spillover.

Curiously, the empirical evidence of these benefits both at the firm level and at the national level remains ambiguous. De Gregorio (2003), while contributing to the debate on the importance of foreign direct investment, notes that foreign direct investment may allow a country to bring technologies and knowledge that are not readily available to domestic investors, and in this way increases productivity growth throughout the economy. Foreign direct investment may also bring in expertise that the country does not possess, and foreign investors may have access to global markets. In fact, he found that increasing aggregate investment by one percentage point of gross domestic product (GDP) increased economic growth of Latin American countries by 0.1% to 0.2% a year, but increasing foreign direct investment by the same amount increased growth by approximately 0.6% a year during the period 1950-1985, thus indicating that foreign direct investment is three times more efficient than domestic investment.

A lot of research interest has been shown on the relationship between foreign direct investment and economic growth, although most of such work is not situated in Africa. The focus of the research work on foreign direct investment and economic growth can be broadly classified into two. First, foreign direct investment is considered to have direct impact on trade through which the growth process is assured (Markussen and Vernables,

1998). Secondly, foreign direct investment is assumed to augment domestic capital thereby stimulating the productivity of domestic investments (Borensztein et al., 1998; Driffield, 2001). These two arguments are in conformity with endogenous growth theories (Romer, 1990) and cross country models on industrialization (Chenery et al., 1986) in which both the quantity and quality of factors of production as well as the transformation of the production processes are ingredients in developing a competitive advantage. Foreign direct investment has empirically been found to stimulate economic growth by a number of researchers (Borensztein et al., 1998; Glass and Saggi, 1998). Dees (1998) submits that foreign direct investment has been important in explaining China's economic growth, while De Mello (1997) presents a positive correlation for selected Latin American countries. Inflows of foreign capital are assumed to boost investment levels.

Blomstrom et al. (1994) reports that foreign direct investment exerts a positive effect on economic growth, but that there seems to be a threshold level of income above which foreign direct investment has positive effect on economic growth and below which it does not. The explanation was that only those countries that have reached a certain income level can absorb new technologies and benefit from technology diffusion, and thus reap the extra advantages that foreign direct investment can offer. Previous works suggest human capital as one of the reasons for the differential response to foreign direct investment at different levels of income. This is because it takes a well educated population to understand and spread the benefits of new innovations to the whole economy. Borensztein et al. (1998) also found that the interaction of foreign direct investment and human capital had important effect on economic growth, and suggests that the differences in the technological absorptive ability may explain the variation in growth effects of foreign direct investment across countries. They suggest further that countries may need a minimum threshold stock of human capital in order to experience positive effects of foreign direct investments.

Balasubramanyan et al. (1996) report positive interaction between human capital and foreign direct investment. They had earlier found significant results supporting the assumption that foreign direct investment is more important for economic growth in export-promoting than import-substituting countries. This implies that the impact of foreign direct investment varies across countries and that trade policy can affect the role of foreign direct investment in economic growth. In summary, UNCTAD (1999) submits that foreign direct investment has either a positive or negative impact on output depending on the variables that are entered alongside it in the test equation. These variables include the initial per capita gross domestic product, education attainment, domestic investment ratio, political instability, terms of trade, black market, exchange rate premiums,

and the state of financial development. Examining other variables that could explain the interaction between foreign direct investment and growth, Olfsdotter (1998) submits that the beneficiary effects of foreign direct investments are stronger in those countries with a higher level of institutional capability. He therefore emphasized the importance of bureaucratic ideas in enabling foreign direct investment effects.

The neoclassical economists argue that foreign direct investment influences the amount of capital per person. However, because of diminishing returns to capital, it does not influence long run economic growth. Bengos and Sanchez-Robles (2003) assert that even though foreign direct investment is positively correlated with economic growth, host countries require minimum human capital, economic stability and liberalized markets in order to benefit from long term foreign direct investment inflows. Interestingly, Bende-Nabende et al. (2002) found that direct long term impact of foreign direct investment on output is significant and positive for comparatively economically less advanced Phillipines and Thailand but negative in the more economically advanced Japan and Taiwan. Hence, the level of economic development may not be the enabling factor in the foreign direct investment growth nexus. On the one hand, the endogenous school of thought opines that foreign direct investment also influences long run variables such as research and development (R&D) and human capital (Romer, 1986; Lucas, 1988).

Foreign direct investment could be beneficial in the short term but not in the long term. Durham (2004), for example, failed to establish a positive relationship between foreign direct investment and growth, but instead suggests that the effects of foreign direct investment are contingent on the “absorptive capability” of host countries. Obwona (2001) notes in his study of the determinants of foreign direct investment and their impact on growth in Uganda that macro economic and political stability and policy consistency are important parameters determining the flow of foreign direct investment into Uganda and that foreign direct investment affects growth positively but insignificantly. Ekpo (1995) reports that the political regime, real income per capita, rate of inflation, world interest rate, credit rating and debt service explain the variance of foreign direct investment in Nigeria. For non oil foreign direct investment, however, Nigeria’s credit rating is very important in drawing the needed foreign direct investment into the country.

Further more, spill over effects could be observed in the labor markets through learning and its impact on the productivity of domestic investments (Sjoholm, 1999). Sjoholm suggests that through technology transfer to their affiliates and technological spill over to unaffiliated firms in host economy, transnational corporations (TNCs) can speed up development of new intermediate products varieties, raise the quality of the product,

facilitate international collaboration on research and development (R&D), and introduce new forms of human capital.

Foreign direct investment also contributes to economic growth via technology transfer. Transnational companies can transfer technology either directly (internally) to their foreign owned enterprises (FOE) or indirectly (externally) to domestically owned and controlled firms in the host country (Blomstrom et al., 2000; UNCTAD, 2000). Spillovers of advanced technology from foreign owned enterprises can take any of four ways: vertical linkages between affiliates and domestic suppliers and consumers; horizontal linkages between the affiliates and firms in the same industry in the host country (Lim, 2001; Smarzynska, 2002); labor turnover from affiliates to domestic firms; and internationalization of research and development (Hanson, 2001; Blomstrom and Kokko, 1998). The pace of technological change in the economy as a whole will depend on the innovative and social capabilities of the host country, together with the absorptive capacity of other enterprises in the country (Carkovic and Levine, 2002).

Other than the capital augmenting element, some economists see foreign direct investment as having a direct impact on trade in goods and services (Markussen and Vernables, 1998). Trade theory expects foreign direct investment inflows to result in improved competitiveness of host countries' exports (Blomstrom and Kokko, 1998).

Transnational companies can have a negative impact on the direct transfer of technology to the foreign owned enterprises, however, and thereby reduce the spillover from foreign direct investment in the host country in several ways. They can provide their affiliate with too few or the wrong kind of technological capabilities, or even limit access to the technology of the parent company. The transfer of technology can be prevented if it is not consistent with the transnational company's profit maximizing objective and if the cost of preventing the transfer is low. Consequently, the production of its affiliates could be resistant to low-level activities and the scope for technical change and technological learning within the affiliate reduced. This would be by limiting downstream producers to low value intermediate products, and in some cases "crowding out" local producers to eliminate competition. They may also limit exports to competitors and confine production to the needs of the transnational companies. These may also ultimately result in a decline in the overall growth rate of the "host country and worsened balance of payment situation" (Blomstrom and Kokko, 1998).

Moreover, the classical theory claims that foreign direct investment and multinational corporations are very vital and contribute to the development of host countries through several channels. These channels

include; the transfer of capital, advanced technological equipment and skills, improvement in the balance of payments, the expansion of the tax base and foreign exchange earnings, creation of employment, infrastructural development and the integration of the host economy into international markets (Zein, 2006).

The product life cycle theory posits that foreign direct investment exist because of the search for cheaper cost of production. It states that many manufactured products will be produced first in the countries in which they were researched and developed, these countries are typically industrialized and overtime the production will tend to become capital intensive and production will shift to foreign locations. So over time, a product initially introduced in a country and exported from that country may end up becoming a product produced elsewhere and then imported back into that country.

The product life cycle theory assumes the following dimensions:

The introduction stage which has to do with innovation, production and sales in the original country.

The second stage is referred to as the growth stage which is characterized by increase in export by the innovating country, more competition, and increase in capital intensity and some foreign production.

The maturity stage is the third stage which has to do with decline in exports from the innovating country, more product standardization, more capital intensity and increased competitiveness of price.

This stage is the decline stage which is characterized by concentration of production in less developed countries (LDC's) and innovating country becoming net importer.

The limiting criterion of the product life cycle theory is that the growing process of globalization and integration of the world economy however invalidates this theory. This is because since globalization is aimed at breaking trade barriers the innovating country can easily employ cheap factors of production from the less developed countries. However, this theory is also in line with the classical theory. The shift of production from one country to another leads to the transfer of capital, advanced technological equipments and skills, improvement in the balance of payments, the expansion of the tax base and foreign exchange earnings, creation of employment, infrastructural development and the integration of the host economy into international markets.

Foreign direct investment consists of external resources, including technology, managerial and marketing expertise and capital. All these generate a considerable impact on host nation's productive capabilities. At the current level of gross domestic product, the success of government's policies of stimulating the productive base of the economy depends largely

on her ability to control adequate amount of foreign direct investments comprising of managerial, capital and technological resources to boost the existing production capabilities.

Foreign direct investment is therefore supposed to serve as a means of augmenting Nigeria's domestic resources in order to carry out effectively her development programmes and raise the standard of living of her people (Shiro, 2005).

According to Nwankwo (1998), factors responsible for the increased need for foreign direct investment by developing countries are:

The world recession of the late 1970's and early 1980's and the resultant fall in the terms of trade of developing countries, this averaged about 11% between 1980 and 1982.

High real interest rate in the international capital market, which adversely affected external indebtedness of these developing countries.

### **The High External Debt Burden**

Bad macro economic management, fall in capita per income and fall in domestic savings.

Foreign direct investment is now becoming a source of capital for many developing countries. This is becoming a crucial issue particularly in the case of Africa with a very small share of foreign direct investment inflow compared to other developing regions (Asiedu, 2003). Foreign direct investment, according to Abdur and George (2003), has potentially desirable features that affect the quality of growth with significant implications for poverty reduction. Klein et al, (2001) posits that foreign direct investment generates revenue and support the development of a safety net for the poor. Adison and Heshmati (2003) also support the view that the determinants of foreign direct investment in developing countries clearly suggests the centrality of infrastructure, skills, macroeconomic stability and sound institutions for attracting foreign direct investment. The importance of information and communication technology (ICT) has also been documented in recent empirical works.

### **Foreign Direct Investment And Economic Growth Globally**

The consensus in the literature seems to be that foreign direct investment increases growth through productivity and efficiency gains. The empirical evidence is not unanimous. However, available evidence for developed countries seems to support the idea that the productivity of domestic firms is positively related to the presence of foreign firms (Globeram, 1979; Imbriani and Reganeti, 1997). The results for developing countries are, not so clear, with some finding positive spillovers (Blomstrom, 1986; Kokko, 1994) and others such as (Atiken et al.; 1997) reporting limited evidence. Still others find no evidence of positive short run spillover from foreign firms. Some of the reasons adduced for these mixed results are that

the envisaged forward and backward linkages may not necessarily be there (Atiken et al.; 1997) and that arguments of transnational companies encouraging increased productivity due to competition may not be true in practice (Atiken et al.; 1999). Other reasons include the fact that transnational companies tend to locate in high productivity industries and, therefore, could force less productive firms to exit (Smarzynska, 2002). Cobham (2001) also postulates the crowding out of domestic firms and possible contraction in the total industry and or employment. However, crowding out is a more rare event and the benefit of foreign direct investment in export promotion remains controversial and depends crucially on the motive for such investment (World Bank, 1998). The consensus in the literature appears to be that foreign direct investment spillovers depend on the host country's capacity to absorb the foreign technology and the type of investment climate.

The review shows that the debate on the impact of foreign direct investment on economic growth is far from being conclusive. The role of foreign direct investment seems to be country specific, and can be positive, negative or insignificant, depending on the economic, institutional and technological conditions in the recipient countries.

Most studies on foreign direct investment and growth are cross country evidences, while the role of foreign direct investment in economic growth can be country specific. Further, only a few of the country specific studies actually took conscious note of the endogenous nature of the relationship between foreign direct investment and growth in their analysis, thereby raising some questions on the robustness of their findings. Finally, the relationship between foreign direct investment and growth is conditional on the macro economic dispensation the country in question is passing through. In fact, Zhang (2001) asserts that "the extent to which foreign direct investment contributes to growth depends on the economic and social condition or in short, the quality of the new environment of the recipient country". In essence, the impact foreign direct investment has on the growth of any economy may be country and period specific. And as such there is the need for country specific studies.

## **Theoretical Framework**

### **Theories Of Investment**

#### **Keynesian theory of investment**

In Keynesian terminology, investment refers to real investment which adds to capital equipment. It leads to increase in level of income and production by increasing the production and purchase of capital goods. Investment thus includes new plant and equipment, construction of public works like roads, dams, buildings, e.t.c In the words of John Robinson, "By investment, is meant an addition to capital, such as addition to capital, such

as occurs when a new house is being built or a new factory is built. Investment means making an addition to the stock of goods in existence.”

### **Types Of Investment**

**Induced Investment:** Induced investment is profit or income motivated. Factors like prices, wages and interest changes which affect profits influence induced investment. Similarly demand also influences it. When income increases, consumption demand also increases and to meet this investment also increases.

**Autonomous Investment:** This investment is independent of the level of income and is thus income inelastic. It is influenced by exogenous factors like innovations, inventions, growth of population and labour force, e.t.c. But it is not influenced by changes in demand, rather, it influences the demand.

The Keynesian Theory of investment places emphasis on the importance of interest rates in investment decisions. But other factors also enter into the model-not least the expected profitability of an investment project.

Changes in interest rates should have an effect on the level of planned investment undertaken by private Sector businesses in the economy.

However, a fall in interest rates should decrease cost of investment relative to the potential yield and as a result planned capital investment projects on the margin may become worthwhile. There is inverse relationship between investment and rate of interest.

### **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.

Symbolically,  $\beta = \Delta I / \Delta C$  or  $\Delta I = \beta \Delta C$  where  $\beta$  is the accelerator coefficient,  $\Delta I$  is net change in investment and  $\Delta C$  is net change in consumption expenditure.

### **Theories Of Growth**

#### **Harrod-Domar Theory Of Growth**

Harrod and Domar assign a key role to investment in the process of economic growth. But they lay emphasis on the dual character of investment. Firstly, it creates incomes, and secondly, it augments the productive capacity of the economy by increasing its capital stock. The former may be regarded as the “demand effect” and the latter the “supply effect” of investment. Hence so long as net investment is taking place, 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. Thus, if full employment is to be maintained in the long run, net investment should expand continuously. This further requires continuous growth in real income at a rate sufficient enough to ensure full capacity use of a growing stock of capital. This required rate of income growth may be called the warranted rate of growth or “the full capacity growth rate”

**The New Growth Theory**

This theory was developed in the 1980’s as a response to criticism of the neoclassical growth model. 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 recent growth theory is that policies which embrace openness, competition, change and innovation will promote growth. Conversely, policies which have the effect of restricting or slowing change by projecting or favouring particular industries or firms are likely over time to slow growth to the disadvantage of the community.

**Methodology**

Granger causality test was adopted in this research study to know whether foreign direct investment is the one that causes growth or whether growth is the one that causes foreign direct investment and a period of forty years (1970-2010) will be used for the analysis. More over, the pre and post deregulation economy of Nigeria was examined.

However, before we make use of granger causality test we must make sure that the data is stationary by carry out a stationary test between 1995 to 2010.

**Model Specification**

GDP=f (FDI) ..... (1)

Equation 1 and 2 then becomes;

GDP = a<sub>0</sub> + a<sub>1</sub>FDI + Σ<sub>1</sub> ..... (2)

So adding equation 1 and 2, it becomes;

GDP = a<sub>0</sub> + a<sub>1</sub>FDI + Σ<sub>1</sub> .....(3)

Where: GDP= Gross domestic product

FDI = Foreign direct investment

$\Sigma_1$  = Error term

**Stationarity Test**

Period	Variable	Ho; I(0)	Ho; I(1)
1970 - 1985	GDP	-1.3431	4.5345
	FDI	-2.6765	-5.3431
1986 – 2010	GDP	-2.6412	-3.9812
	FDI	-2.4345	-3.4321
1970 - 2010	GDP	-1.8871	-5.5345
	FDI	-1.3221	-5.4351

Critical value at 5% = 2.93

The result of the test displayed in the table above are examined, it can be seen that the series belonging to Foreign direct investment (FDI) and economics growth (GDP) is not stationary in level value and it becomes stationary only when first differences are taken. So we can then proceed to carry out the granger causality test between 1970 to 2010 in a pre and post deregulated economy.

**Pairwise Granger Causality Tests**

Sample: 1970 - 1985

Lags: 2

Null Hypothesis:	Obs	F – Statistics	Probability
GDP does not Granger Cause FDI	15	5.56215*	0.01221
FDI does not Granger Cause GDP		1.42541	0.42213

**Pairwise Granger Causality Tests**

Sample: 1986 - 2010

Lags: 2

Null Hypothesis:	Obs	F – Statistics	Probability
GDP does not Granger Cause FDI	24	2.21654	0.02431
FDI does not Granger Cause GDP		1.53530	0.32132

**Pairwise Granger Causality Tests**

Sample: 1970 - 2010

Lags: 2

Null Hypothesis:	Obs	F – Statistics	Probability
GDP does not Granger Cause MS	40	4.3432***	0.04542
MS does not Granger Cause GDP		3.7864	0.23145

\*5% Level of significance = v1= 2, v2=13 = 3.81.

\*\*5% Level of significance = v1=2, v2= 19 = 3.52.

\*\*\*5% Level of significance = v1=2, v2= 35 = 3.23.

According to Granger causality test done by using annual data between 1970-1985, 1986-2010 and 1970 and 2010 in Nigeria, economic growth (GDP) is the cause of FDI (FDI) in the pre-deregulation era, which implies that there is causality relationship from economic growth (GDP) to Foreign direct investment (FDI). In the post deregulation era there is no casual relationship between GDP and FDI. However, in the whole period 1970-2010 economic growth (GDP) is the cause of Foreign direct investment (FDI) in the pre-deregulation era, which implies that there is causality relationship from economic growth to Foreign direct investment (FDI). In other words, there is a one-way relationship between Foreign direct investment (FDI) and economic growth (GDP) and the direction of this relationship is from economic growth (GDP) to foreign direct investment (FDI).

## **Recommendation And Conclusion**

### **Recommendation**

It is important that the government concentrate on providing the basic infrastructures to support the local organized private sector that are ready to invest domestic funds into the economy. The response to private initiatives by government is quite commendable, but there is need for more favorable policies targeting specifically the locals as opposed to foreigners.

Many investors regard political and economical stability, availability of natural resources and a large and growing market as important factors to attract foreign direct investment. In a global environment, the following determinants are preferred.

- ❖ A favorable environment with and stable rates and effective competition policies.
- ❖ Low transactions and business costs for labor and trade regulations, entry and exit rules, location and environment regulation.
- ❖ Subcontract services to local firms.
- ❖ Support quality assurance and technical extension to small and medium scale enterprises (SME's).
- ❖ Human capital with diverse modern skills.
- ❖ Low cost infrastructure such as efficient communications system and transportation links.
- ❖ Merger and acquisition.
- ❖ Open policies on export activities- i.e. free trade and free foreign exchange regimes to maximize economies of scale.

However, to improve the climate for foreign direct investment, an econometric analysis indicates that strong economic growth and aggressive trade liberalization can be seen to fuel the interest of foreign investors. Similarly, a closer look at the experience of Mali and Mozambique- two

countries that have shown a spectacular improvement in their business climate during the 1990's- reveals that the implementation of a few visible actions is essential in the strategy of attracting foreign direct investment. Beyond macro economic and political stability, those countries focused on a few strategic actions such as:

- ❖ Opening the economy through a trade liberalization reform; launching an attractive privatization programme.
- ❖ Modernizing mining and investment codes.
- ❖ Adopting international agreements related to foreign direct investment
- ❖ Developing a few priority projects that have multiplier effects on other investment projects and mounting an image building effort with the participation of high political figures.

Interestingly, these actions do not differ significantly from those that have been identified to be behind the success of other small countries with limited natural resources such as Ireland and Singapore about twenty years ago.

One of the development challenges facing African leaders today is how to attract foreign direct investment to the region. A number of efforts have been made in the past to boost foreign direct investment inflows to the region but they have not had any significant impact. These efforts were not successful because they were ill conceived, did not lift underlying constraints on foreign direct investment into the region, and failed to confront the challenges to the attraction of foreign direct investment to the region posed by globalization process. More over, the Nigerian Government should still try to improve the economy because through this effort foreign direct investment will improve over time in the economy as seen from the result of the granger causality test above.

### **Conclusion**

We have critically and analytically examined the impact of foreign direct investment inflow on Nigeria's economic growth in a pre and post deregulated economy in Nigeria for forty years that is from 1970-2010. The empirical part of the research study attempted to verify whether foreign direct investment inflows affect economic growth, the research contributes to the mixed results of earlier empirical studies on the macro level by finding that foreign direct investment inflows does have a positive effect on the Nigerian economy using granger causality test. This paper has argued that for foreign direct investment to enhance economic growth, the country should take advantage of spillovers and inflows of physical capital it has to offer and that it is when the economy is improving before investors can come into the country.

More over, the empirical evidence suggests that in order to induce more foreign direct investment to Nigeria, the country should focus on improving the investment climate for the foreign investors by paying special attention to measures what facilitate foreign direct investment. These measures that tend to increase a country's attractiveness to multinationals engaging in foreign direct investment include the various recommendations stated above such as creating an attractive domestic policy environment and hospitable regulatory framework for foreign investment (such as open trade regimes and continued progress in privatization programmes), the large market size (indicated by a country's gross domestic product), and favorable economic environment (which increases the prospect for growth) in the foreign direct investment recipient countries. Indeed, experience suggests that Nigeria can increase its attractiveness to foreign direct investors by reducing the impediments to capital movements.

The impact of foreign direct investment on economy can only be positively be felt if the Nigerian government ensure the effective implementation of the various policies recommendations listed above to reap the benefits of foreign direct investment.

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