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## **DEVELOPMENT INTERVENTIONS, FOREIGN CAPITAL INFLOWS AND GROWTH OF NIGERIAN ECONOMY**

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### **ABSTRACT**

In recent years, foreign direct investment inflows to Nigeria have exhibited muted development. This has led to calls to improve incentives for direct investment in order to contribute to an increase in economic growth. This study investigates the effects of development interventions, foreign capital inflows on economic growth of Nigeria using a disaggregated approach. The estimation result suggests that external debt, interest rate, inflation rate and real exchange rate exert positive effect on economic growth. The result equally shows that ordinary development assistance, foreign direct investment and official development assistance has negative impact on economic growth in Nigeria

**Keywords:** Development interventions, Ordinary development assistance, Foreign direct investment, Official development assistance, Foreign Capital Inflows, Economic Growth,

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### **1. INTRODUCTION**

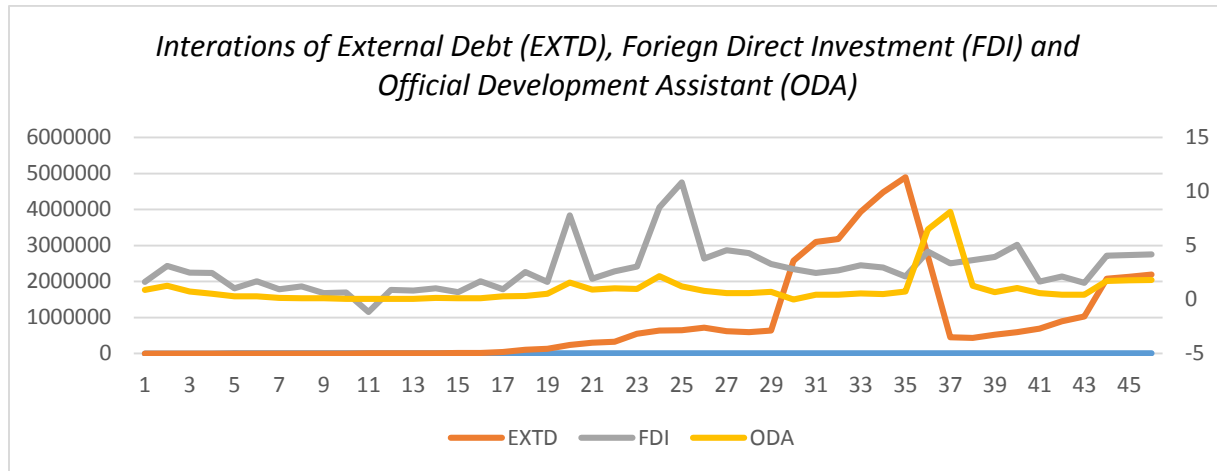
Foreign direct investment (FDI) is central to the economic growth of a country and represents an important financing source for capital investment. In addition, direct investment can also support the transfer of technology, expertise and organizational capital between countries, and thus also stimulate productivity growth (Contessi and Weinberger 2009; UNCTAD, 2015). Foreign capital inflows by definition is too broad as it can be view from both private and public sources. From the private stands, foreign capital inflows can come in terms of foreign private/portfolio

investment, foreign direct investment and remittances. Comparably, from the public source, it could also come in terms of official development assistant from bilateral and multilateral affiliates, as well as foreign commercial bank loans in addition to export credits (Okodua, 2009).

Nigeria as a developing economy has received series of development assistance through foreign capital inflows. The introduction of the structural adjustment programme (SAP) in Nigeria in 1986 incorporated and encouraged investment from foreign and international communities in the forms of foreign direct investment. Development interventions represent a major foreign capital inflow from developed to developing countries. Foreign capital inflows through development interventions could come in forms of foreign direct investment (FDI), official development assistance (ODA), external debt, and so on. Development interventions as well as foreign capital flows are aid towards economic integration and globalization, since it is viewed as pivotal to economic growth and development. Development interventions alongside foreign capital inflows can be perceived as the movement of financial resource from one country (especially developed economies) to another country (developing economies).

According to IMF (2015), the amount of foreign direct investment (FDI) inflow into Nigeria reached US\$2.23 billion in 2003 and it rose to US\$5.31 billion in 2004 which further rose to US\$9.92 billion in 2005. FDI in Nigeria averaged US\$1379.76 billion from 2007 until 2015, reaching all time high of US\$3084.90 billion in the fourth quarter of 2012 and recorded low of US\$501.83 billion in the fourth quarter of 2015. Despite the quantum of development assistance and foreign capital inflow, Nigeria's economic growth over the past decades remain much to be desired. Annual indices of growth of GDP from 1960-1970 was 3.1 percent. In 1980, growth of GDP was 4.2 percent, -1.05 percent for 1982, -8.75 percent for 1986, 2.8 percent for 1999 and 4.28 percent for 2012. Economic growth for third quarter of 2007 was estimated at 6.05 percent compared to 5.73 percent in the second quarter. Nigeria's growth rate had slowed down steadily in the past six quarters sliding into negative of -4 percent in the last quarter of 2015. For most countries, it has been argued by Baldi, Fichtner, Michelsen and Rieth (2014) that shares in inflows of direct investment have steadily decreased and fallen considerably due to financial crisis and huge debt burden. However, emerging countries were able to increase their significance growth as investment destinations in the course of dynamic economic growth. The figure below shows the interactions and movements of foreign direct investment (FDI), official development assistant (ODA) as well as the streams and external debt in Nigeria over the years

**Figure 1: Interactions and Movements of Foreign Capital Inflows to Nigeria, 1970-2015**



**Source:** World Bank Development Indicators (WDI) (2015)

Although studies such as Fasanya and Onakoya (2012), Imoughele and Ismaila (2014), Mbah and Amassoma (2014), Chigbu, Ubah and Chigbu (2015) have examined the impact of foreign aids and foreign direct investment on economic growth of Nigeria, they fail to decompose the component of development assistance received by Nigeria. An increasing number of studies have been published, which attempt to isolate the effect of FDI on variables such as productivity or economic growth. Many of these studies indicate that direct investment can increase growth potential. As noted by Balasubramanyam, Salisu and Sapsford (1996), these results exhibit a high degree of heterogeneity among various countries. For this reason, the findings of these studies cannot necessarily be generalized.

It has been argued that foreign direct investment can contribute to the stimulation of economic growth of a country. This line of argument is based on empirical findings which have frequently investigated the connection between foreign direct investment and economic growth with a variety of methods. A survey of these studies by Carkovic and Levine (2002; Alfaro and Carlton, (2007) reveal that positive effects on economic growth could be found for foreign direct investment. However, the estimates of the size of the effect vary considerably, which makes it difficult to quantify the growth-enhancing effect of foreign direct investment. Some studies found that an increase of the inward foreign direct investment-to-gross domestic product ratio by one percentage point increases economic growth by more than one percentage point, while others find very low effects. Several other studies also indicate that additional factors, summarized under the concept of absorption capacity also play a decisive role in the influence of foreign direct investment on economic growth. These include the education level (Borensztein, De

Gregorio and Lee 1998), the quality of the infrastructure (Donaubauer, Mayer and Nunnenkamp 2014) and transport government, less risk in operating business and judicial independence (Roy and Roy, 2016) development of the financial markets (Alfaro, Chandra, Kalemlı-Ozcan and Sayek, 2006). The role of trade openness (measured by the share of exports and imports) in the gross domestic product is also highlighted (Baldwin, DiNino, Fontagne, De Santis and Taglioni (2008); Turkcan and Yetkiner, 2010). Overall, the results of the empirical literature indicate that foreign direct investment works as a catalyst and strengthens existing developments. Studies such as Girma, Gong, Görg, and Lancheros (2015) that focused on the newest developments of the European countries show that the influence of foreign direct investment on gross domestic product growth increases as the absorption capacity of a country improves.

Although it is empirically difficult to establish an independent causal effect of direct investment on economic growth, overall, the results of the existing literature indicate that foreign direct investment not only provides financing capital for capital investment but can also accentuate growth indirectly through the transfer of management knowledge or technology. But what remains unclear is the component of foreign direct investment that engenders growth most. With various proposals currently being suggested to encourage higher foreign direct investment to assist in stimulating economic growth in Nigeria, it therefore became imperative to examine the impact of development interventions and foreign capital inflows in the growth process of Nigeria using disaggregated approach.

## **2. REVIEW OF LITERATURE**

Shedding more light on the empirical ambiguity on the impact of foreign direct investment on economic growth, Alfaro, et al (2006) adopted a small open economy where final goods production is carried out by foreign and domestic firms, which compete for skilled labor, unskilled labor and intermediate products mechanism, thus emphasizing the role of local financial markets in enhancing foreign direct investment to promote growth through backward linkages. To operate a firm in the intermediate goods sector however, entrepreneurs must develop a new variety of intermediate good, a task that requires upfront capital investments. The study found that holding the extent of foreign presence constant, an increase in foreign direct investment leads to higher growth rates in financially developed countries compared to rates observed in financially poor countries. Also, an increase in the share of the relative productivity of the foreign firm leads to higher additional growth in financially developed economies compared to those observed in financially under-developed ones. Local conditions such as development of financial markets and human capital of a country also affect the impact of FDI on economic growth. The implication of this finding is that non-economic factors play a role in attracting foreign direct investment. This was collaborated by Roy and Roy (2016) when he

found that from 2006-2012 a positive relationship exist between transparent government, less risk in operating business and judicial independence and growth in the presence of foreign direct investment for a group of 18 Middle East and North African (MENA) countries. To Noorzoy (1979), FDI assist in overcoming the problem of capital shortage in host countries and complements domestic investment when FDI focuses on high risk areas or new industries where domestic investment is in short supply. Beside, FD may help attract investment in export industries, thereby increasing demand for exports from host country.

Adopting the neo-classical modelling analytical framework combined with several procedures in modern econometric analysis/estimation techniques. Fasanya and Onakoya (2012) investigated how foreign aid accelerate the economic growth in Nigeria between 1970 and 2010 and found that flow of foreign aid has a significant impact on economic growth in Nigeria. Imoughele and Ismaila (2014) investigated the nature of foreign direct investment and its impact on sustainable economic growth in Nigeria for a period which spanned from 1986-2009. The study utilized cointegration approach and error correction model (ECM) to determine the sectorial relationship between FDI, its components and economic growth. The result of the study revealed that continuous inflow of FDI, in mining and quarrying, telecommunication, building and construction, trading and business and agricultural sectors have a robust impact on economic growth of Nigeria. Mbah and Amassoma (2014) studied the linkage between foreign aid and economic growth in Nigeria between 1981 and 2012 using ordinary least square (OLS). The outcome of the study suggests that a negative relationship exist between foreign aids to Nigeria and economic growth. This implies that foreign aids have not contributed significantly to the growth process of Nigeria. Folorunso (2008) found that the relationship between foreign direct investment and economic growth is positive, though relatively weak. However, there is imperative evidence that a positive relationship exists between human capital building and foreign direct investment.

In a comparative study, Chigbu, Ubah and Chigbu (2015) examined the impact of capital inflows on economic growth of Nigeria, Ghana and India from 1986-2012. Adopting the ordinary least squares (OLS) the study found that capital inflows have significant impact on the economic growth of the three economies. The study further found that capital inflows is indispensable in closing the savings-investment gap required for economic growth of developing countries. In another cross-sectional study, Xiaoying Li and Xiaming Liu (2005) investigated whether foreign direct investment affects economic growth based on a panel of data for 84 countries over the period 1970–1999 applying both single equation and simultaneous equation system techniques. The study found a significant endogenous relationship between foreign direct investment and economic growth from the mid-1980s onwards. Foreign direct investment not only directly promotes economic growth by itself but also indirectly through its interaction terms. The

interaction of foreign direct investment with human capital exerts a strong positive impact on economic growth while that of foreign direct investment with the technology gap has a negative impact on economic growth.

Other studies, like Braustein and Epstein (2002) used panel data for 1986-1996 province level of China to succinctly demonstrate that foreign direct investment crowds-out economic growth. The study conclude that the social benefits of foreign direct investment are dissipated at least at the provincial level because of stiff competition among different regions which forces regions to reduce taxes, relax environmental protection regulations, wages and working conditions. Studies have equally found that foreign direct investment discourages domestic investment (*see Helpman 1984, Huang 2003, Parker, Phan and Nguyen 2005*). They aver that domestic investment policies are more friendly to foreign investors that to domestic private firms. As a result, domestic partners are eager to form partnership with foreign investment with the foreign partners dictating the pace. Consequently, foreign investors take advantage and exploit the preferential policies and even possess privileges in competing for local resources that are relatively scarce.

Conversely, Huang (1998), Braunstein and Epstein (2002) in their study conclude that direct investment crowd-out domestic investment and therefore possess danger to economic growth. They opined that foreign direct investment is an aggressive global strategy adopted by multinational cooperation designed to exert monopoly over and above indigenous firms of the host country which will ultimately force them into extinction. Other empirical evidence supporting this view include Braunstein and Epstein (2002) and Haung (2003).

### **3. METHODOLOGY**

This study generates its theoretical framework form the basic knowledge of the Harrod-Domar growth model as applied by Blanchard and Johnson, (2012); Abel and Bernanke (2001). According to the theory, the fundamentals of the small open economy where output growth is a function of additions to capital stock can be expressed as:

$$Y = f(\Delta k) = f(I) \dots\dots\dots(1)$$

*Y* is the growth of output, *K* is capital stock and *I* is investment. But from Literature, the standard macro-economic national income identity is stated as:

$$E = C + I + G + (X - M) \dots\dots\dots(2)$$

$$Y = C + S + T \dots\dots\dots(3)$$

$E$  is aggregate expenditure,  $Y$  is aggregate income,  $S$  is private saving,  $G$  is government expenditure,  $T$  is tax,  $X$  is exports and  $M$  is imports. Following the two-gap model:

$$E - Y = (I - S) + (G - T) + (X - M) \dots\dots\dots (4)$$

For the economy to be at equilibrium in (4) above,  $E - Y$  must equal zero. Then,

$$(I - S) + (G - T) = (M - X) = F \dots\dots\dots (5)$$

$F$  is the foreign capital inflow. If we omit the fiscal balance ( $G - T$ ) in (5) above, then:

$$I = F + S = F + sY \dots\dots\dots (6)$$

where:  $s$  is the economy's propensity to save. Equation (6) shows that the total investible resources ( $I$ ) required for the growth of an economy is the sum of the private savings ( $S$ ) and foreign capital inflow ( $F$ ). Arising from the above analogy, equation (6) can be substitute into equation (1) to obtain:

$$Y = f(I) = f(F, S) \dots\dots\dots (7)$$

The above derivation therefore would be the foundational functional form of this study. For this reason, the foreign capital inflows ( $F$ ) shall consist of foreign direct investment (FDI), official development assistance (ODA) and external debt (EXTD). However, for empirical analysis, our model was further developed to enable us evaluate the effect development interventions through foreign capital inflows have on the economic growth in Nigeria. Furthermore, the study incorporated disaggregated variables of development interventions that could exert influence on economic growth,

Following the works of of Adofu (2010) we adopted and modified the regression model as:

$$RGDP = f(FDI, ODA, FIR, EXTD, REX, INFR) \dots\dots\dots (8)$$

Linerally, equation (8) can be re-specified as:

$$RGDP_t = \beta_0 + \beta_1 FDI_t + \beta_2 ODA_t + \beta_3 FIR_t + \beta_4 EXTD_t + \beta_5 REX_t + \beta_6 INFR_t + \mu_t \dots\dots (9)$$

Transforming equation (9) into a logarithm equation will result as below:

$$I\_RGDP_t = \beta_0 + \beta_1 I\_FDI_t + \beta_2 I\_ODA_t + \beta_3 I\_FIR_t + \beta_4 I\_EXTD_t + \beta_5 I\_REX_t + \beta_6 I\_INFR_t + \mu_t \dots\dots (12)$$



where:  $I_t$  = Natural log, RGDP = Real Gross Domestic Product proxy for economic growth, FDI=Foreign Direct Investment, ODA = Official Development Assistance, FIR = Foreign Interest, Rate proxied by US Interest Rate, EXTD = External Debt, REX=Real Exchange Rate, INFR=Inflation Rate,  $\mu_t$ = Pure white noise.

**4. PRESENTATION AND DISCUSSION OF RESULTS**

Recent developments in Economic Literature has shown that ordinary least square (OLS) method cannot be applied unless it is established that the variables in the model are stationary and to avoid spurious regression, it therefore became imperative to determine the stationarity of the variables used in this study since unit root problem is a common feature of time series,. This was conducted using both the Augmented Dickey-Fuller (ADF) and Phillips-Perron tests and the result is presented in Table 1 below:

**Table 1: Results of the Stationarity (Unit Root) Tests.**

Augmented Dickey–Fuller (ADF)test for unit root				Phillips–Perron (PP)test for unit root		
Variables	At Level	At First Difference	Order of Integration	At Level	At First Difference	Order of Integration
RGDP	-6.572** (-3.518)	-6.627 (-3.526)	I(0)	-6.572** (-3.518)	-42.346 (-3.520)	I(0)
FDI	-4.039** (-3.518)	-6.240 (-3.526)	I(0)	-4.047** (-3.518)	-17.797 (-3.520)	I(0)
ODA	-4.841** (-4.192)	-7.136 (-3.523)	I(0)	-3.337** (-3.518)	-13.538 (-3.520)	I(0)
FIR	-3.307 (-3.518)	-6.380** (-3.523)	I(1)	-3.197 (-3.518)	-11.688** (-3.520)	I(1)
EXTD	-3.192 (-3.520)	-3.911** (-3.520)	I(1)	-2.237 (-3.518)	-3.736** (-3.520)	I(1)
REX	-3.843** (-3.518)	-7.495 (-3.520)	I(0)	-3.743** (-3.518)	-11.513 (-3.520)	I(0)
INFR	-3.703** (-3.520)	-5.532 (-3.520)	I(0)	-2.362 (-3.518)	-5.891** (-3.520)	I(1)

\*Significant at 1%, \*\*Significant at 5%, \*\*\*Significant at 10%

Source: Stationarity test results computed using EViews 8.



The results above indicate that all variables in the model are stationary at level and first difference thereby suggesting further estimation.

**Table 2: Results of the Effect of Foreign Capital Inflows on Economic Growth**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	7.8338	0.8002	9.7904	0.0000
I_FDI	-0.3851	0.3782	-1.0182	0.3156
I_EXTD	0.4019	0.0597	6.7358	0.0000
I_ODA	-0.0574	0.2289	-0.2506	0.8036
INFR	0.0002	0.0573	0.0034	0.9973
REX	0.0016	0.0034	0.4658	0.6443
FIR	0.0020	0.0112	0.1794	0.8586
$R^2 = 0.70$ $R^2 : 0.65$ $F\text{-Statistic} = 13.6$				

**Source:** EViews Software Output

The estimation result presented in Table 2 above shows that external debt exerts positive influence on economic growth in Nigeria. Similarly, foreign interest rate, inflation rate and real exchange rate have positive relationship with economic growth. The result equally shows that ordinary development assistance, foreign direct investment and official development assistance has negative relationship with economic growth. In specific term, an increase in external debt by a naira, will raise the economic growth by 40 percent on the average holding all other variables constant. Similarly, a naira increase in the inflow of capital as foreign direct investment will lead to about 39 percent decrease in economic growth on the average assuming that all other variables are fixed. Again, a naira increase in ordinary development assistant on the average holding all variables constant will result in about 3 percent decrease in economic growth. The  $R^2$  is approximately 0.71 which shows that the explanatory variables explained about 71 percent of the total variation in economic growth.

## 5. CONCLUSION

The development interventions through foreign capital inflows have generated strong arguments and counter arguments in developing economies in recent times. For this study, it was indicated from the estimation result that foreign capital inflows such as foreign direct investment and official development assistance have a negative implications on the economic growth of Nigeria with statistically insignificant results. However, from the regression analysis carried out in which OLS technique was applied, it was equally shown that some variables in the model conformed to economic theory. Based on the findings, the study recommends that it is high time government

look inward towards generating and finding alternative sources of revenue to increase its foreign reserves which will spur growth rather than relying on development interventions through foreign capital inflows.

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