FOREIGN PRIVATE INVESTMENT AND THE NIGERIA’S ECONOMIC GROWTH (1980-2013)

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Abstract
Despite the influx of foreign investments into sub-Saharan African economies, there seem to be no improved growth and development found in them. As a result, many scholars have been asking whether Foreign Private Investment has any good to offer African developing economies especially Nigeria. This work therefore intends to look at the impact of foreign Private Investment on the Nigeria’s economic growth from 1980 to 2013. In order to actualise this, the relationship between real GDP and foreign private investment and other selected macro economic variables such as inflation, exchange rate and interest rate were considered. From the tests conducted, there is presence of unit roots at their first difference which conformed with the Augmented Dickey Fuller (ADF) result as well. The terrace test and maximum Eigen value test on the variables identified one co integrating vector at 5% and 1% critical levels. Also, the ECM showed a long run relationship between real GDP and other variables in the model. All these suggest the activities of FPI have impacted favourably in boosting economic activities in Nigeria within the period of study. The researcher therefore, recommends that efforts and policies should be geared towards increase in foreign private investment in Nigeria.

Key words: Foreign, Private, Investment and Economic Growth.

Introduction
The misalignment between savings and capital requirements of most economies of the world especially some developing and sub Saharan Africa (Nigeria) has been seen as a major reason why they cannot attend their desired growth level. This is also, seen as a result of insufficient domestic private investment to boost and enable those countries achieve their target. It is the role
of the foreign private investment to augment domestic resources to enable them to be more efficient in their development programmes and as such raise the standard of living of the citizens.

FDI has been seen over some periods of time as a means of boosting the economy as it helps to transfer technological and managerial practices through the host countries and thereby exhibiting more positive external influences on the economy. Though portfolio investment is also good in its own way but cannot be compared to FDI in terms of its external impact. Samuelson, (1995) opined that FDI flows tend to be more stable compared to the portfolio investment. This is because of the liquidity of FPI and the short time horizon associated with such investment. Also, FDI inflows can be less affected by change in national exchange rates as compared to FPI. However, a good combination of the two bearing in mind the unique characteristics of the recipient economy will bring about the required effects on the economy.

The positive attributes of FPI include technological transfer, increase in productivity, high income, increase in government revenue through taxes, enhancement of balance of payment ability, employment generation, diversification of the industrial base and expansion, development of existing industries. In the words of Feldstein (2000), international flows of capital reduce the risk faced by the owners of capital by allowing them to diversify their lending and investment. Also, the world integration of capital markets can contribute to the spread of best practices in corporate governance, accounting rules, and legal traditions. The global free movement of capital limits government ability to fight bad policies. In the same vein, foreign investment through FDI gives room for the transfer of technology – especially in the form of new varieties of capital inputs. Also, foreign investment through FDI can promote competition in the domestic input market. Above all, profits generated from foreign investments contribute to corporate tax revenues in the host country.

However, the case against FPI are that it may cause capital flight which may lead to net capital outflow thereby creating balance of difficulties, income distribution problems when it competes with domestic investment. It may also be capital intensive, which may not fit in the factor proportions of the recipient country.

In the later years, flows of investment have globally and dramatically increased. Despite the increased flow of investment to developing economies in particular sub Saharan African countries are still characterised by low per capita income, high unemployment rates, low savings, investment, low GDP, and other problems which foreign private investments are theoretically supposed to eradicate.

According to Obadan, (2001) Nigeria being one of the top three countries that consistently received FDI in the recent decade is not exempted from this group. The Nigerian government is putting too much effort into attracting foreign investors and yet the economy is still dwindling. It is against this background that this study is trying to know and analyse the impact of FPI on the Nigerian economy.

**Review of related literature**

FPI has contributed a lot to the Nigerian economy and has equally been debated over the years. The debate ideally, covers both developed and developing economy. As a matter of fact, a lot of more attention has been channelled into the study of FDI since it has been seen to have a larger impact on developing economy –Nigeria.
Also, in the developed world it is agreed that FPI in overall, play a positive role in the economy. These roles vary from country to country and as well depend on the policy environment, sectors, and characteristics of the country. Blomstrom and Kokko (1997) reviewed the empirical evidence on host country effects of FDI. They came with a conclusion that MNCs may play an important role in productivity and export growth in their host countries, but the nature of the impact of FDI varies between industries and countries, depending on the country’s policy environment. Udabah (2003) in an attempt to analyse empirically using cross-country data for the period 1981-1999 suggests that the total FDI exerts a heavy effect on growth. According to the result, FDI in the primary sector tend to have a negative effect on growth in the economy, while investment in manufacturing a positive one. Evidence from the service sector is ambiguous.

Ledyaeva and Linden (2006) determined the FDI impact on per capita growth in 74 Russian regions during period of 1996-2003. Their framework related real per capita growth rate to initial levels of state variables, such as the stock of physical capital and the stock of human capital, and control variables viewed as important factors in the Russian economy’s regional development in the analysed period. Their results imply that in general, FDI do not contribute significantly to economic growth in Russia within the period in question. However, some evidence of positive aggregate FDI effects in higher-income regions is relevant. Therefore, FDI seems not to play any significant role in the recent growth convergence process among Russian regions.

Stasvage (2001) in a cross-country study of 88 countries including 20 developing countries studied the effect of volatility of FDI flows on growth over the 1970-1998 periods. They estimated the standard model using cross-section, panel data and instrumental variable technique. Whilst all results were not robust, there was a consistent finding that FDI has a positive effect on growth whereas volatility of FDI has a negative impact on the growth of those countries.

Empirical evidence from the Czech Republic points to a mixed experience for the impact of foreign investment on domestic firms. Based on firm-level data, from the period 1994-1998, an industry-wide inverse relationship was detected between the extent of foreign investment and the turnover of domestic firms (Iyoha, 2000). This finding was similar to that of a study focusing on regional effects (1993-1998) which indicated that the productivity of domestic firms had declined in proportion to the level of foreign investment (Gorg and Greenway, 2004). However, these negative or neutral findings stand in contrast to those of other studies that have detected positive effects.

On the side of developing countries, the case has been a little bit different. Investigations show that they do not benefit so much from foreign investment and in most cases face crowding out of their domestic investment due to the high inflow of foreign capital. In fact, the extent of benefits from FPI depends on their general macro-economic stability and policy framework. Aremu (1997) submitted that FPI accelerate the pace of economic development of the LDCs up to a point where a satisfactory rate of growth can be achieved based on self sustenance. He equally observed that the main responsibility of FPI in LDCs is to raise the standard of living of the citizenry so as to enable them move from that level of economic stagnation to that of self sustenance. He therefore, concluded his study by recommending that FPI should continue to rise till a certain level of income is reached in underdeveloped countries. That LDCs should organise...
or mobilise a level of capital formation sufficient to ensure adequate level of economic growth and development. On the other hand, Kumar and Pradhan (2002) analyse the relationship between FDI, growth and domestic investment for a sample of 107 developing countries for the 1980-1999 period. Their model uses flow of output as the dependent variable and domestic and foreign owned capital stock, labour, human skill capital stock and total factor productivity as the independent variables. According to their result, panel data estimations in a production framework suggests a positive effect of FDI on growth and although FDI appear to crowd-out domestic investments in net terms, in general, many countries have had favourable effect of FDI on domestic investments in net terms suggesting a role for host country policies. Aitken and Harrison (1999) in testing if domestic firms benefit from direct foreign investment in Venezuela used panel data on the country’s plant and found out that foreign equity participation positively correlated with plant productivity, but this relationship was only robust for small enterprises. They concluded that foreign investments negatively affect the productivity of domestically owned plants. The net impact of foreign investment, taking into account these two offsetting effects, is quite insignificant. However, the gains from foreign investment seem to be entirely captured by joint ventures.

Banga (2003) in a study using panel data of 69 developing countries over two periods, 1970-1979 and 1980-1989 investigate the impact of FDI on growth. They used a basic estimating equation of growth in real GDP as the dependent variable, and FDI, measure of schooling and initial GDP as their independent variables. They find that FDI has a positive impact on growth but this is only realised when their measure of schooling is above some critical level (estimated as 0.52); at low levels of their measure of schooling, FDI has a negative impact on growth confirming the complementarities of FDI and human capital in the process of diffusion.

Blomstrom and Kokko (2000) assessed the extent to which foreign direct investment in developing countries crowds in or crowds out domestic investment. Their model is run for three developing regions (Africa, Asia, and Latin America) with panel data for the period 1970-1996 and the two sub periods 1976-1985 and 1986-1996. Their model differed from the previous models with the inclusion of lagged variables in the model (lagged FDI, lagged domestic investment, and lagged growth rates). The results indicate that in Asia- but less so in Africa – there has been strong crowding in of domestic investment by FDI; by contrast, strong crowding out has been the norm in Latin America. Finally, they concluded that the effects of FDI on domestic investment are by no means always a favourable and those simplistic policies toward FDI are unlikely to be optimal. Broadman and Sun (1997) studied the impact of FDI on economic growth in 67 developing countries including Nigeria. They find out that while FDI has a positive impact on economic growth in middle-income countries, low income countries have not benefited from FDI flows. Obadan (2005) studied the impact of foreign capital flow on economic growth in Pakistan from 1975-2004 using GDP as dependent variable and net inflow of FDI and ODA (Official Development Assistant and Official Aid) as the independent variable. Coefficient of 61.4 for FDI and 22.7 for ODA showed a high positive impact of foreign capital inflows on the GDP growth in Pakistan during the period of 1975-2004. Weeks (2001) investigates the relationship between FDI and domestic investment: foreign direct investment may ‘crowd-in’ or
‘crowd-out’ domestic investors using 18 countries in Latin America. The result shows a positive or a negative relationship in each of the condition.

Gyapong and Karikari (1999) examined casual relationships between direct foreign investment (DFI) and economic performance in two sub-Saharan African countries (Ghana and Ivory Coast), from 1960s to 1980. Using correlation, causality, stationarity, and cointegration tests, their results show that the impact of higher economic performance on FDI depends crucially on the strategy of the investment. Specifically, in Ivory Coast, a superior economic performance enhanced the inflow of export-oriented DFI; but, in Ghana, where DFI took the form of market-development in response to an import-substitution strategy, the effect is ambiguous. Akpokodje (2009) studied the impact of FDI on growth in Uganda. As expected, FDI impacted on growth positively though the coefficient was insignificant.

In the case of Nigeria, Asiedu (2002) carried out a research on the effects of Foreign Private Investment on economic growth in Nigeria from 1980 to 2001. The result showed that FPI had significant impact on the Nigeria’s economic growth, and therefore concluded that the presence of Foreign Private Investment in the developing nations especially Nigeria is not totally useful. Gorg and Strobl (2004) also investigated the impact of Foreign Private Investment on economic growth in Nigeria, for the period 1970 to 2001. The ECM results showed that both private capital and lagged foreign capital have small, and not a statistically effect on the economic growth. The results seem to support the argument that extractive FPI might not be growth enhancing as much as manufacturing FPI. Obadan (2001) addressed the various issues associated with capital flows in both conceptual and empirical contexts. He posits that the desirability or otherwise of foreign capital depends on the use to which such capital is put. Osinubi and Amaghionyeodiwe (2010) carried out a research on foreign private investment and the Nigerian economy, from 1970 to 2006. They result showed that foreign private investment and export growth was positively related with Nigeria’s economic growth. Baghebo and Edoumlekumo (2012), empirically examined the relationship between foreign Private Capital accumulation and economic development in Nigeria from 1970 to 2010. Using a group unit root tests, he discovered the variables attained stationary after first difference. Also long run equilibrium relationship was also established using the Johansen co integration test. Its impact on the Nigerian economy was seen to be stable and statistically insignificant probably due to the relative stability in the economy then.

It is pertinent that lots of researches had been carried out on this area foreign private investments, foreign direct investment and economic growth in developing countries of the world including Nigeria. But none actually captured both the past and present situations in term of the period covered by the study. Therefore the researcher decided to explore the gap in research and look into the impact of Foreign Private Investment on the Nigeria’s economic growth from 1980 to 2011.

**Research Methodology**

This study is based on quantitative method of data analysis, the research employed econometric tool of analysis where the pattern used on regression analysis was based on ordinary least square (OLS) technique. The OLS is one of the simplest methods of linear regression. The goal of OLS
is to closely “fit” a function with the data. It does so by minimizing the sum of square errors from the data. It is based on these positive reasons that the researcher choose to use the OLS.

**MODEL SPECIFICATION**

Gross Domestic Product dependent variable whose value is determined within the model while Foreign Private Investment, Inflation rate and Exchange rate are independent variables whose value or magnitude is determined outside the model. It includes changes in the value of another variable.

Therefore, the model has the following functional relationship:

$$ GDP = f (FPI, INFI, EXR, INT) $$

The above functional relationship can be specified further as:

$$ GDP = \mu_0 + \mu_1 FPI + \mu_2 INFR + \mu_3 EXR + \mu_4 INT + U_t $$

Where:

- \( GDP \) = Gross Domestic Product
- \( FPI \) = Foreign Private Investment
- \( INFR \) = Inflation Rate
- \( EXR \) = Exchange Rate
- \( INT \) = Interest Rate
- \( U_t \) = Error term

Thus, \( b_0, b_1, b_2, b_3, b_4 \) are parameters to be estimated.

**Discussion of Results**

Before the estimation of the model as specified in the previous section, all the variables were subjected to stationary tests of times series data. If the data series is differenced and it is found that it is stationary, and then they can be integrated to the order of one or greater, otherwise, a non-stationary series exists. For instance, if \( n = 0 \), the resulting \( I(0) \) represents a stationary processes. If the time series are integrated into the order \( I(0) \) and they are at the same level, cointegration can be done. The unit roots test was evaluated using Augmented Dickey-Fuller (1981) for all the variables in this study. The results of the stationarity test is summarised in Table 1 below.

**Table 1: Summary of Augmented Dickey-Fuller Unit Root Test**

<table>
<thead>
<tr>
<th>Variables</th>
<th>1% Critical Value</th>
<th>5% Critical Value</th>
<th>10% Critical Value</th>
<th>ADF t-Statistic</th>
<th>Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>D(RGDP) 1(1)</td>
<td>-4.2949</td>
<td>-3.5670</td>
<td>-3.2169</td>
<td>-12.12529</td>
<td></td>
</tr>
<tr>
<td>D(FPI) 1(1)</td>
<td>-4.2949</td>
<td>-3.5670</td>
<td>-3.2169</td>
<td>-4.873520</td>
<td></td>
</tr>
<tr>
<td>D(EXR) 1(1)</td>
<td>-4.2949</td>
<td>-3.5670</td>
<td>-3.2169</td>
<td>-5.235417</td>
<td></td>
</tr>
<tr>
<td>D(INT) 1(1)</td>
<td>-4.2949</td>
<td>-3.5670</td>
<td>-3.2169</td>
<td>-9.562591</td>
<td></td>
</tr>
<tr>
<td>D(INF) 1(1)</td>
<td>-4.2949</td>
<td>-3.5670</td>
<td>-3.2169</td>
<td>-5.299408</td>
<td></td>
</tr>
</tbody>
</table>

Source: Author’s Computation
Following the above table, it can be seen that the variables of real gross domestic product (RGDP), foreign private investment (FPI), exchange rate (EXR), interest rate (INT) and inflation (INF) are all stationary at first difference i.e. \( I(1) \). This implies that the null in the ADF test and in the presence of the unit roots are all stationary at their first difference and hence in support of the ADF result.

However, since the results of the unit root tests above confirm the non-stationarity of the variables in the VAR model, we can then apply Johansen methodologies in testing for cointegration (Johansen, 1988, 1991, 1992 and Johansen and Juselius, 1990). To determine the number of the cointegrating vectors, we make use of both the Trace test and the Maximum Eigenvalue test using the more recent critical values of MacKinon-Haug-Michelis (2009). In this case, both tests identify one cointegrating vector at the 5\% (1\%) critical level for the model of real gross domestic product, as seen in our regression output.

The resulting long run elasticities from the cointegrating regression for the RGDP model that includes the variables of FPI, EXR, INT and INF are as presented. However, the signs of all the variables are as expected excepting the variable of interest rate, which turned out to be negative.

Having obtained cointegration among the variables, we then estimate an Error Correction Model (ECM) for the model of real GDP. The ECM is written in such a way that the first difference of each variable is related to only lagged variables. In estimating the ECM, we start by setting the lag of all the variables to four and then successively delete the most insignificant parameters one after the other, until we obtained a parsimonious representation of the model containing only parameters that are statistically significant. The residuals from the cointegrating regressions lagged one period were used as error-correction mechanism in the dynamic equations. Thus, the ECM is highly significant and has appropriate sign, which is negative. The disequilibrium error from the long run elasticity of real GDP model is only 2 percent. This significant value of the ECM explains the existence of long run equilibrium relationship between real GDP and the variables of our interest in the model. This empirical evidence suggests that the activities of foreign private investment have impacted favourably in boosting economic activities in Nigeria.

Again, the Ordinary Least Square (OLS) estimation method was employed as it is an essential component of most estimation technique. The OLS remains one of the most commonly used method in econometric investigations. Estimates of the preferred specifications obtained using general-to-specific method are as presented. The results were evaluated using conventional diagnostic tests.

From the empirical evidence, it can be inferred that there is a positive short-run relationship between real economic activities and the existence of foreign private investment in Nigeria. This is imperative because a one point percent increase of foreign private investment increases economic activities in Nigeria by 79 percent point. The implication of this finding suggests that the activities of foreign private investment will increase per capita income in Nigeria. This evidence coincide with the recent study of Osinubi and Amaghionyeodiwe (2010) who carried out a research on foreign private investment and the Nigerian economy, from 1970 to 2006, and concluded that foreign private investment and export growth was positively related with Nigeria’s economic growth. Contrarily to the evidence, Akinlo (2004) in his study on the impact
of Foreign Private Investment on economic growth in Nigeria, for the period 1970 to 2001, submitted that both private capital and lagged foreign capital have small, and not a statistically effect on the economic growth, which seems to support the argument that extractive FPI might not be growth enhancing as much as manufacturing FPI.

Again, other variables of interest such exchange rate and inflation rate were all positively related to economic growth in Nigeria, excepting interest rate, which affected economic activities negatively. This is true because a one percent rise in interest rate reduces economic growth by 20 percent point. Generally, the explanatory power of the equation of the VAR model as reflected in the coefficient of determination (R²) and F statistic is quite high and statistically significant as over 92 percent of the explanatory variables were explained at the long run. This implies that only an infinite decimal of 8 percent was unexplained by the explanatory power. The D.W. of 1.07 shows that our estimated results did not fall within the conclusive region and as such we cannot say whether autocorrelation exist or not. Also, the F-value is quite high, showing that the model adequately explained about 78 percent of the situation of FPI and economic growth in Nigeria. Conclusively, this established long-run equilibrium in our empirical evidence reveals that the activities of FPI have impacted favourably in boosting economic activities in Nigeria within the period of study.

Recommendation
Based on the above findings I therefore, recommend that efforts and policies should be geared towards increase in foreign private investment, keeping interest rate and inflation at their barest minimum levels and maintaining favourable and stable exchange rate. This is because; all these based on the result are capable of increasing economic growth.

References


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