



Effect of Tax on Non-Oil Foreign Direct Investment (FDI): Evidence from Nigeria

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ABSTRACT

The quest for increase of inflows of foreign capital investment among different countries of the world has a new dimension. Tax has become a vital instrument used by some countries to influence the flows of capital to their countries. Based on this, this study investigated the impact of tax on foreign direct investment in Nigeria. The specific objectives are to examine the effect of company income tax and education tax on the foreign direct investment inflows to Nigeria. The study used time series data covering 1986-2017 obtained from central bank of Nigeria and National Bureau of Statistics (NBS). Fully-modified cointegrating regression analysis technique was employed for the study to test for the relationships that exist between tax and foreign direct investment in Nigeria. The findings revealed that company income tax were significantly negative in influencing foreign direct investment into Nigeria with p-values of (0.0456); infrastructural development was found to have a positive significant relationship with the inflows of foreign direct investment to Nigeria (p-value of 0.0017). Non-significant relationship was found between educational tax and foreign direct investment inflows to Nigeria. The results suggested the need to ensure a sound fiscal policy that will ensure proper management of her tax policy. The study concludes that tax system operated in Nigeria is pivotal to the inflows of foreign direct investment to Nigeria. Hence, it was recommended that Nigerian government needs to come up with friendly tax rate in the form of company income tax rate to induce more foreign investors with long lasting interest into the economy.

Keywords: Foreign direct investment; Tax; Economy; Nigeria

INTRODUCTION

Background to the study

The effect of financial integration, liberalization, deregulation and globalization of financial services among the countries of the world in the 21st century has increased the flow of fund across the global financial market. The economic policy of Nigerian government in the 70's (nationalization and indigenization) affected the presence of foreign investors and the inflows of foreign investment into Nigeria at that time. The fall in oil price at the international market and the shortage of fund to meet up with investment in the country after the nationalization and indigenization policy called for more friendly policies by the government to address the weakness observed in the economy.

In the light of this, the federal government came up with the Structural Adjustment Programme (SAP) with the aim of deregulating the economy and brought more private individuals into the economy for more active participation [1].

The flows of capital across the countries of the world have not been evenly distributed. For instance, the developed economies received a value of FDI worth over \$1 trillion between 2015 and 2016; followed by developing Asian countries with inflows of \$671 billion, the flows to African countries still remain low with a record of \$42 billion as at that period. Foreign direct investment flows fell to \$1.43 trillion from \$1.87 trillion recorded in 2016. Capital flows recorded by Emerging Market and Developing Economies (EMDEs) amounted to \$4.75 billion, while the developed economies attracted \$3.1 trillion in 2016.

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Statement of the problem

The rate at which FDI is attracted into Nigeria is declining and this has become worrisome to stakeholders because the nation's economy is directly affected. According to Akinwumi, Olotu and Adegbe, the input from FDI to the Gross Domestic Product (GDP) significantly declined from 9.5 percent in 1975 to 6.65 percent in 1995; 3.42 per cent from 2005 to 2009 and it peaked marginally to stand at 4.0 per cent with no sign of improvement by the end of 2010. Olaleye, et al. observed that the Nigerian government reduced company income tax rate from 45% to 40% (from 1987-1991), then between 1992-1995, the rate was 35%, it was finally reduced to 30% from 1996 to date. As a result of unfriendly company income tax, about 1000 of oil and non-oil related companies that set-out business in the country annually end-up shutting down. They further opined that FDI inflow fluctuations tracked by the national bureau of statistics noted that when the price of oil is high the economic and money inflow will increase and vice versa [2].

Scope of the study

The study's main focus is on the effects of tax on FDI inflows to Nigeria. It covers a period of 31 years from 1986 to 2017. The choice of this period was based on the fact that drastic economic reform was carried out between 1986 and 2017 and the availability of data. The study used company tax rate, petroleum tax rate, education tax, non-oil FDI and oil related FDI as the determinants for the foreign investor inflows.

MATERIALS AND METHODS

Tax

In an attempt to attract foreign investors, an analysis of the interrelationship between tax incentives and FDI are not news in academic's literature. In order to carefully examine this relationship in the setting of developing economies like Nigeria, it is important to look at both theoretical and empirical approaches undertaken in the investigation of this problem. Here, we are interested in exploring the effect of tax and FDI on economic growth and also a possible effect of economic growth on tax and FDI.

To Imoughele, taxation is a compulsory financial charge or some other type of levy imposed upon a taxpayer (an individual or other legal entity) by a governmental organization in order to fund various public expenditures. Aguolu observed that tax as unavoidable impose by the government through its agencies on the income, consumption and capital of its subjects. These levies are made on personal income, such as salaries, business profits, interests, dividends, discounts and royalties. It is also levied against company's profits, petroleum profits, capital gains and capital transfer. Marszk opined that taxation is the most important source of revenue for modern governments from either local or foreign businesses, typically accounting for ninety percent or more of their income. Tax is a common source of income generation for financing government activities [3].

Foreign direct investment

Organization for Economic Cooperation and Development (OECD) defined FDI as cross-border investment by a resident entity in one economy with the objective of obtaining a lasting interest in an enterprise resident in another economy. The lasting interest implies the existence of a long-term relationship between the direct investor and the enterprise and a significant degree of influence by the direct investor on the management of the enterprise. Ownership of at least 10% of the voting power, representing the influence by the investor, is the basic criterion used. Similarly, In IMF guidelines, FDI refers to as foreign investments in which the investor owns more than 10% of the stock that is invested in Nigeria. This generally refers to investments by multinationals in foreign controlled corporations such as affiliates or subsidiaries. FDI flows consist of two broad categories as direct net transfers from the parent company to a foreign affiliate, either through equity or debt and reinvested earnings by a foreign affiliate [4].

Benefit of tax in Nigeria's FDI inflow

The importance of tax in Nigeria cannot be over emphasized. It is a strong driver for economic development in the country right from the pre-colonial era to the post-colonial era. Apart from oil, tax is the second most important revenue source for the government. More notable is the fact that there is decreasing revenue from oil and focus has been on how to drive revenue through tax, which could become a main weapon for the economy buoyancy.

Borensztein perceived FDI as an important vehicle for the transfer of technology, contributing to growth in larger measure than domestic investment. Findlay postulates that FDI increases the rate of technical progress in the host country through a "contagion" effect from the more advanced technology, management practices, etc., 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 note that the economic rationale for offering special incentives to attract FDI frequently derives from the belief that foreign investment produces externalities in the form of technology transfers and spillovers. FDI may also bring in expertise that the country does not possess, and foreign investors may have access to global markets Njogo [5].

Internalization theory

This theory was advocated by Buckley and Casson and supported by Hennart. The origin of this theory was by Coase in a national context and Hymer in an international context. Hymer established two major determinants of FDI. The first were the advantages, which some firms possess in a particular activity while the second was the removal of competition. Buckley and Casson state that transnational companies organize their internal activities to benefit from specific advantages, which are to be exploited.

The Internalization theory lies on why companies do not prefer to sign contract with a subcontractor in a foreign country instead of engaging in foreign direct investment themselves. The theory of internalization explains the motivations of the transnational companies for making foreign direct investment by taking advantage of various government fiscal policies and other policies [6].

Competition theory

Tax competition theory was proposed by Oates in 1972 as explained by Wilson. The theory proposes that governments lower economic burdens for justifications such as support for valuable resources inflows for example capital and to deter outflow of production resources. Therefore, tax competition theory may explain government strategies to lower economic burdens for purposes of attracting investment inflows, skilled and qualified human capital and financial investments into the country. Lowering of tax burdens by government create tax burden based competitive advantage for foreign investments. Tax competition theory supports the proposition that there is an inverse relationship between tax burden and FDI inflows. Resources competition connotes nations with complementary resources will eventually find inflow of FDI where that is highly heavier, which will lead to FDI outflow from such nation [7].

Research gap

Empirical studies on the possible effects of tax on foreign direct investments have been researched into globally especially in Asia and Europe with mixed results. Previous studies in Nigeria such as Njogo; Olusanya; Ogunleye; Dauda to mention just a few have focused mainly on the determinants of FDI and the effects of FDI on Nigeria economy. Studies in regard to tax and foreign direct investment inflows to Nigeria are very scanty and with some reservation concerning their results. Akinwumi, Olutu and Adegbe worked on multiplicity of tax and foreign direct investment in Nigeria, this was a time series study, but the authors only made use of 19 years data, this cannot give a reliable result, thus, the principle stipulated that any time series study must be minimum of 30 years before the result can be reliable. Again, Olaleye Riro and Menba used only primary data for their study and data relating to FDI cannot be captured properly through the use of only primary data. Amuka and Ezendeka only focused on the effects of tax non-oil FDI inflows to Nigeria. This study was carried out, using the appropriate years required in time series study and to differentiate between FDI inflows to oil and non-oil FDI. This study is unique because comparison of the effects of tax on non-oil FDI and oil related FDI in a single study was carried out. This becomes expedient and timely due to the clamor of the government to improve the inflows of non-oil FDI. It is against this backdrop that this study examines the effect of tax on FDI inflows to Nigeria [8].

Model specification

Two econometric models were formulated to achieve the objectives of this study.

The first model evaluated the effects of tax on non-oil foreign direct investment in Nigeria, while the second model examined the effect of tax on oil related foreign direct investment Nigeria.

Research design and sources of data

This study employed expository research and it examined the effects of tax on foreign direct investment Nigeria. Secondary data were used for this study and they were sourced from world bank data base and central bank of Nigeria data bank covering a period of 31 years from 1986-2017 and the models were estimated using fully-modified least squares integrating regression method. This aspect deals with the provision of information on the variables included in the model for the data analysis. It provides definition of the variables, the proxies for the variables and the justification for their inclusion in the models.

The dependent variables used for the study was foreign direct investment, which is an investment made by a company or entity based in one country, into a company or entity based in another country, which is usually more than 10% of the total capital of such firm. The flows of FDI into Nigeria for the purpose of this study are non-oil FDI inflows. The independent variables are taxes and other macroeconomic variables influencing foreign direct investment inflows Nigeria. A unit root test was conducted on the time series data to ensure the stationarity of the data used. Again, Pearson correlation test was conducted to ascertain the level of multi collinearity among the dependent variables.

To validate reliability of the result, serial correlation test and normality test were conducted. The validity and reliability of secondary data used is assured because they are extracted from the central bank of Nigeria and world bank data base. The estimation techniques used for this study were unit root test to ensure the stationarity of the variables used and fully-modified least squares integrating regression method was employed to test the relationship between the variables. Multiple regression analysis was applied in the analysis of the time series. The analysis was conducted through E-views 7.0 software application package [9].

RESULTS AND DISCUSSION

Descriptive statistics

The jarque-bera test in Table 1 rejects the null hypothesis of normal distribution for CIT, TIN, INFR and NOFDI, while all other variables are normally distributed. The kurtosis for all the variables is platykurtic (thin-tailed) distribution because their values are less than three. Skewness of the variables shows that they are positive [10].

Table 1: Descriptive statistics.

Variables	CIT	EDT	TIN	INFR	IFRD	NOFDI
Mean	34.8387	1.483887	0.677419	19.21935	2321.452	28526.57
Maximum	45	2	1	72.8.	5074	84203.40
Minimum	30	0	0	5.4	1346	1452.80
Std. dev.	7.127864	0.88960	0.475191	17.64653	10.2753	28.93335
Skewness	0.0598	0.0097	0.0598	0.0004	0.0040	0.090319
Kurtosis	0.0003	1.34765	0.00039	0.0370	0.12323	0.03245
Jarque-Bera	3.442523	2.512319	1.42033	5.01550	5.35802	2.759986
Probability	0.0017	0.104749	0.0017	0.0370	0.12321	0.030654
Observations	31	31	31	31	31	31

Correlation analysis

The correlation matrix of the relationships that exist among the variables examined in this study. Correlation analysis was conducted for variables such as oil related foreign direct investment, non-oil foreign direct investment, company income tax, education tax, petroleum tax, tax incentives, infrastructural development and inflation rate. The result shows that non-oil FDI is negatively related to CIT, PT and INFR but maintain a positive relationship with other variables. It also evident from the result that the relationship between non-oil FDI and all other variables are highly significant. This can be seen by each of the p-values being less than 0.05.

Unit root test

The unit root test to determine if the variables used in the models of this study are stationary or non-stationary series. The tests were conducted using the Augmented Dickey-Fuller (ADF) procedure. The trend and intercept option was chosen while conducting unit root test for each of the time trending variables while intercept option was chosen for variables that are not trending with time. The ADF results reveal that all variables are

not stationary at level except IFRD. This is evident from each of their ADF statistic being less than their respective critical values at 5% level of significance and their p-values being greater than 0.05 except that of IFRD that was stationary at level. All the variables are stationary at first difference except that of IFRD that was stationary at level.

Cointegration test

The cointegration test for the variables in the models in order to confirm the presence of long-run relationships among the variables. The test states a null hypothesis that no long-run relationships exist among the variables. The decision rule is to reject the null hypothesis if the reported statistics (i.e., tau and z) are statistically significant and accept null hypothesis if otherwise. The result indicates that the tests are significant for both models and suggests the rejection of null hypothesis. A conclusion can then be arrived at that there exist long-run relationships among the non-stationary series in the models (Table 2).

Table 2: Engle-Granger single equation cointegration test.

Model	Tau-statistic	p-value	z-statistic	p-value
NOFDI	-5.234012	0.0061	-42.24057	0

Regression analysis model

In this section the regression analysis to examine the impact of tax on non-oil FDI in Nigeria is presented. The fully-modified least squares cointegrating regression was used to estimate the parameters of the models. This estimating techniques was used because of the behavior of the variables which were all integrated at order one/zero and having a co-integrated relationship among themselves. Peter proved that fully-modified least squares cointegrating regression is appropriate and good to analyze model with full rank I (1) regressors, models with I (1)

and I (0) regressors, model with unit roots and model with only stationary regressors. Fully-modified cointegrating regression results of the impact of tax on non-oil FDI in Nigeria. The reported R-squared of the model shows that the model explains about 88%, of variations in non-oil FDI inflows to Nigeria. This indicates that the model is a good fit. F-statistic also shows that the overall model is significant with a value of 432.4654 and p-value of 0.0000 which indicates a rejection of null hypothesis that the overall model is not significant [11].

Discussion of findings

Company Income Tax (CIT) with a negative significant value effect on FDI inflows to Nigeria, which implies an inverse relationship between CIT and FDI. It indicates that a unit increase in company income tax will lead to a decline of about 0.031801 unit of non-oil FDI inflows and vice versa. This is in line with a priori expectation and the result of Zirgulis, Cung and Hua, Amuka and Ezeudeka, who found the same negative significant value. Educational Tax (EDT) with negative coefficient and non-significant effect on the inflow of non-oil FDI to Nigeria, the sign is line with the a priori expectation and it implies an inverse but non-significant relationship. The finding is in line with Akinwunmi, Olotu and Adegbe which also found negative and non-significant relationship. Tax incentives were found to be positively significant in influencing FDI to Nigeria and this affected both the non-oil FDI and unit increase in tax incentives will lead to an increase of about 0.004052 unit of non-oil FDI inflow and vice versa.

This is in line with a priori expectation and the result of Amuka and Ezeudeka, who found the same positive significant value. Inflation rate was found to be non-significant factor affecting the inflows of FDI to Nigeria in both models; the coefficient was rightly signed in the first model appearing with positive sign in line with a priori expectation. This study is contrary to Jonathan and Danladi, who found positive and significant relationship but in line with Akinwunmi, Olotu and Adegbe, who also found a negative and non-significant relationship. Infrastructural development appeared with a positive and significant relationship with the inflows of FDI to Nigeria. The positive significant relationship implies that a unit increase infrastructure development in Nigeria will lead to an increase of about 0.002984 unit on non-oil FDI inflow to Nigeria and *vice versa*. From the result of the study, the theories underpinning the study which are competition theory and internalization theories.

The result of the study supports the competition theory which says tax competition proposed that there is an inverse relationship between tax burden and FDI inflows. And from the result of the study CIT shows an inverse relationship with non-oil FDI with a negative coefficient of -0.031801 and that is as tax burden increases in form of CIT, there is a reduction in the inflows of FDI in Nigeria. FDI in non-oil related sector might still be giving Nigeria a high inflow of FDI, if the CIT rate can be revised. This is supported by the internalization theory [12].

CONCLUSION

From the results obtained, the study revealed that there exist long-run relationships among the non-stationary in the study.

The result further shows that there exist a significant and positive relationship between infrastructural development, tax incentives and foreign direct investment in Nigeria. Company income tax has a negative significant relationship with foreign direct investment inflow to Nigeria. Hence, the study concluded that inflation rate and educational tax were not statistically significant in determining the inflows of FDI to Nigeria.

AUTHORS CONTRIBUTION

This study contributes to the existing body of literature in accounting, taxation and foreign direct investment in Nigeria by looking at the effects of tax on both non-oil FDI and oil related FDI inflows to Nigeria. This study has been able to point out various taxes friendly policies and enabling society for foreigners that influence oil and non-oil FDI outflows from Nigeria.

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