



## PETROLEUM PROFIT TAX AND FOREIGN DIRECT INVESTMENT IN NIGERIA

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**Abstract:** The main objective of this study was to evaluate the effect of petroleum profit tax on foreign direct investment in Nigeria. The design adopted for this study was *ex-post-facto*; data used for analysis were elicited from Central Bank Statistical Bulletin and Federal Inland Revenue Service Annual Reports. To achieve this objective, a model was formulated based on empirical and theoretical reviews. The model used foreign direct investment inflows in to Nigeria as the dependent variable, while Petroleum profit tax was used as the independent variable in the model. This study employed the Fully Modified Least Squares (FMOLS) Model to analyze data. The findings elicited from this study revealed that Petroleum profit tax with p-value of 0.0078 had negative and significant effect on foreign direct investment in Nigeria within the scope of this study. From the inferential result, the researcher concluded that taxation had negative and significant effect on foreign direct investment in Nigeria. From the foregoing, the researcher recommended that government and the appropriate monetary authority review tax policy by reducing tax rates and giving out tax incentives and tax reliefs to companies operating within the downstream sector Nigeria in order to encourage them to continue investing in Nigeria.

**Keywords:** taxation, central bank of Nigeria, FMOLS, Foreign direct investment, petroleum profit tax

## BACKGROUND TO THE STUDY

One of the veritable sources of revenue to government of any country is taxation. Taxation provides an avenue for government to generate revenue for her expenditure. For government to be able to enjoy taxes, she must provide enabling environment in terms of security and provision of infrastructures that would enable businesses to thrive. In as much as taxation generates revenue to government, it must follow certain canons so as to enable the tax payer pays without grudge or burden (Kyari, 2020). The capacity to pay should be considered. It is important to note that tax policies of government can influence the numbers and types of investors into the country which in turn would affect revenue generation and the overall performance of the economy and could also discourage potential foreign investors. An optimal tax policy is capable of encouraging

and attracting foreign direct investment into the country. Tax is not only a revenue generating tool for the government, but could also be used to regulate the economy and redistribute income by charging higher tax rates to high income earners, while charging lower tax rates for low income earners (Efanga, *et al.*, 2020).

Tax is a mandatory levy by the government on its citizens. An efficient and effective tax system is capable of ensuring the basic necessities and services in the country and can attract foreign direct investment, achieve economic growth, achieve equity in income and wealth distribution and maintain equilibrium in the economy (Ndagi, 2016).

In Nigeria today, there are many factors that distorts the proper inflow of foreign direct investment. These include: insurgency, kidnapping, corruption, tax rate, tariff, weak public institutions and poor external image. On the other hand, foreign direct investment provides: capital, new technology, marketing and management, they may also lower domestic savings, entrepreneurship and investment rates thus stifling competition through exclusive product agreements with host governments and failing to reinvest much of their profits in the host economy. According to Efanga, *et al.*, 2020, Nigeria have been stimulating economic growth with the help of tax revenue resulting from various tax policies that would aim at bringing in foreign investors in the form of foreign capital and technology transfer. The Nigerian government imposes taxes such as corporate income tax, petroleum profit tax, and custom and excise duties and so on to generate revenue. The questions are concerning the tax policies in Nigeria, what is the effect of these taxes on the perception of foreign companies coming to invest in Nigeria? Whether or not these tax policies translate to increase or decrease in FDI in Nigeria is the motivation for this study.

## RESEARCH QUESTION

The following is the research question for the study.

- (i) What is the relationship between petroleum profit tax and volume of foreign direct investment in Nigeria?

## HYPOTHESIS OF THE STUDY

The following hypothesis is developed in their null form to guide the study.

- $H_{0_1}$ : Petroleum profit tax has no significant relationship with volume of foreign direct investment in Nigeria.

## CONCEPTUAL REVIEW

### Taxation

It is simply a levy imposed by the government on the income, wealth and capital gains of individuals and businesses, on spending goods and services, and on properties. Taxation

involves compulsion. The taxpayers are required to make payment regardless of their feelings or willingness. Once the tax has been levied, no individual has the choice of paying or not paying unless, of course, doing it illegally like tax evasion (Aderinton and Abdullahi, 2007). Taxation as an instrument of fiscal policy, performs four economic roles for the development of a nation and state: (i) it helps to allocate resources from private to public needs (ii) taxation is very often used as part of the general public policy instrument to control inflation in a country, (iii) taxation can be used as a promoter of economic growth. In most of the less developed countries, where the level of private saving is poor, taxation can be used to provide necessary funds for investment, (iv) taxation can be, and is often, used as an instrument to promote social equity by redistributing wealth and income. Through varying systems of taxes and subsidies, a country can promote a more egalitarian society.

### **Importance of Taxation**

The usefulness (effectiveness and efficiency) of taxes can be measured by several parameters, some which are its revenue generating capacity and its impact on the consumption and savings pattern in the economy. Even if the totality of tax system cannot be comprehensively measured, the various types of tax can be subjected to this measurement. Taxation has an important role in an ideal economy such as; Instrument of Revenue Generation to Cover Expenditure (Dalton, 1964). It is used to raise income revenue for the government to cover its own expenditure and to provide services and infrastructural facilities such as schools, hospitals, roads and social security payments made to individuals in respect of unemployment, sickness etc. Instrument of Stabilization. It is used as an instrument of stabilization such as inflation and to stimulate economic growth. For example (a) if a country or state is experiencing inflation, one way to deal with the situation is to raise direct taxes on individual income as well as business profits made by individuals and this would reduce demand for consumption of goods and at the same time lower the investments by business men. (b) When an economy of a country or state is experiencing depression, the overall level of taxes may be lowered in the economy. Instrument of Income and Wealth Distribution. Here, by levying taxes in a progressive manner, the gap of income is somewhat reduced and this may be the prime reason of levying taxes in some cases. Instrument of Regulation. Taxation helps to regulate the consumption and production of certain goods in a country or state. (Suppose the government wishes to discourage the consumption of certain type of imported goods, it may impose higher import duties on them to raise the price of those goods which may reduce the demand for them. Therefore, it controls the volume of imports into the country.

Instrument of Payment; The government uses taxation in the payment of teaching and nonteaching staff's salaries, to those in medical areas such as hospitals and, for

poverty alleviation, for building of social amenities like, hospitals, schools, and provision of irrigation for the development of agriculture. It is used in the provision of ammunitions for defense, for the armies, police force and force workers, construction of barracks and their uniforms. As Instrument of Mobilization (Asada, 2005), taxation helps in the mobilization of resources to pay gratuity, for the payment of public debts and loans and finally, to maintain the wellbeing of the people in the state.

### **Canons of Taxation**

According to Evans (2009), taxation has continuously been a matter of discussion between the taxpayers and government identically since the early years of mankind civilization. The concept of taxation has created a lot of dispute and severe political struggles over a long period of time. Considering to its significance, various economic theories have been suggested to manage an effective and clear tax system. Taxation is therefore, generally categorised under three main different theories as follows: principle of taxpayer ability to pay, principle of benefit or utility approach and principle of equal distribution. However, in this paper we provide discussion about these theories in brief as follows:

### **Principle of Ability-to-Pay**

As clearly the name advocates, it means that the taxes should be imposed according to a person's ability to pay base on his or her earnings. It is widely known that public expenditure should be expected from those that have and not from those who have not. This principle originated since the sixteenth century. The principle was systematically stretched by the seventeenth century Swiss philosopher Jean Jacques Rousseau (1712-1778), and then the French political economist named Jean- Baptiste Say (1767-1832) and lastly the English economist John Stuart Mill (1806-1873). This is certainly the foundation of progressive tax, as the tax rate increases then the taxable amount is expected to increase also. This principle of ability to pay is definitely the best equitable tax system, and this has been widely practice in industrialized nations. The common and most maintained reasoning of ability to pay is on the bases of sacrifice by one party to another. The disbursement of taxes is regarded as a dispossession to the taxpayer; this is because taxpayers submitted taken amount to the government which instead he may have utilize for another personals benefits. Conversely, there is no compacted method to the measure the fairness of sacrifice in this concept, as the case may be evaluating the absolute, marginal or proportional terms.

### **Principle of Benefit or Utility Approach**

According to this theory about taxation, individual may be asked to summits their taxes in proportion to the utility they are enjoying from the services provided by the

government. This should be based on the assumption that there is an interchange relationship between the taxpayer and the government.

Government deliberates some benefits to the taxpayers by providing different services and others so-call social goods. Moreover, this theory profess and advocate that equity or fairness in taxation stresses that an individuals would be asked to submit a tax proportion to the welfares he receive in turn from the services provided by the government. Despite the theory is viewed as interchange relationship between taxpayer and the government, many difficulties was identified in applying the theory. The most serious problems confronting principle of utility or benefit approach is how to quantify and measure the received (enjoyed) benefit by taxpayer from the services provided by the government. For example, on which scale taxpayer benefit would be measured for enjoying national security and education, maintaining law and order and other social infrastructure-all provided by government. Furthermore, various expenditures incurred by government in providing services, benefits are indivisible which cause the expenditure impossible to be divided.

This could only shows that people are always encouraged by paying taxes to the government for the continuity of the community prosperity. However, the theory can only be really applied in a situation where the beneficiaries are easily and clearly traceable. For instant it can be applied to the road taxes collected from owners of vehicles. Also principle of benefit approach can be applied to the workers who have a network of social security program. Therefore, this principle can only rendered restricted solution to the issue of equity and fairness in the domain of taxation.

### **Principle of Equal Distribution**

According to this principle, tax liability should be so distributed between different persons that bordering cost of utility of each individual who are disbursing the tax should be the same. This method seeks to reduce the total sacrifice of the people as a whole. When many individuals pay ample tax that means their marginal sacrifice of benefit should be the same, as such the total utility loss of the society would be lowest. Therefore, the principle of equal distribution looks at the problem of apportioning the tax liability from the idea of view of benefit of the whole society.

The social philosophy causal principle is the entire sacrifice levied by taxation on the public have to be smallest. Thus, the equal distribution principle endorses a highly progressive tax structure. This taxation principle has been suggested among the scholars such as Edge worth, Musgrave and Pig-out who contemplate this as the crucial principle of taxation. It is said that Edge worth who is the elevator of this principle suggests that minimum submission is the supreme principle of taxation. The smaller the amount of the cumulative tax sacrifice, the more improved sharing of tax liability in the community. Then the more Government continues to exists and maximize human welfare.

### **Petroleum Profit Tax**

Petroleum Profit Tax (PPT) and Foreign Direct Investment (FDI) are pivotal elements in Nigeria's oil and gas industry, playing significant roles in shaping the nation's economic growth and global energy integration (Kiabel and Nwokah, 2009). Petroleum Profit Tax (PPT) is a tax levied on the profits generated from petroleum operations in Nigeria. Governed by the Petroleum Profits Tax Act, PPT serves as a major source of revenue for the Nigerian government. The tax rate varies depending on the type of operation and contractual arrangements. Revenue generated from PPT contributes to national development initiatives, infrastructure projects, and social welfare programs. Foreign Direct Investment (FDI) in Nigeria's petroleum sector involves international companies investing in exploration, production, and refining activities. FDI can bring advanced technology, expertise, and capital to the industry, fostering growth and development. Nigeria's vast oil reserves and strategic position in the global energy market make it an attractive destination for FDI in the petroleum sector. The relationship between PPT and FDI is intricate. A stable and transparent PPT regime can enhance investor confidence and attract FDI (Osuka, *et al.* 2018).

However according to Onu (2012), an unfavorable tax structure may discourage foreign investors. Striking the right balance between revenue generation through PPT and creating a conducive environment for FDI is crucial for sustainable sectoral growth. Nigeria's management of PPT and FDI has been a mix of achievements and challenges. The government has aimed to enhance transparency and efficiency in tax administration through reforms. Efforts to improve the ease of doing business and promote local content have also been noteworthy in attracting FDI. Challenges such as fluctuating oil prices, regulatory uncertainties, and security concerns have affected FDI in the petroleum sector (Ekpung and Wilfred (2014). Additionally, ensuring that PPT policies remain competitive while maximizing revenue collection remains a balancing act. Petroleum Profit Tax and Foreign Direct Investment are essential components of Nigeria's petroleum industry. According to Esoh, (2011) a well-structured PPT system can contribute to government revenue, while FDI can bring technology and capital for sectoral growth. Striking the right equilibrium between these two factors is key to ensuring a thriving and sustainable petroleum industry in Nigeria.

### **Foreign Direct Investment**

Investment refers to the acquisition of assets with a view to generating future income or appreciation in value (Chen, 2018). Investment is termed "foreign" if it is acquired in a foreign country, such investments may be direct or indirect. Direct investment is a kind of foreign investment which gives an investor a significant degree of influence on the foreign investee's management. Thus, Foreign Direct Investment (FDI) is defined

as a cross border acquisition of financial and/or physical assets by foreign individuals or government with the investor having some controlling rights. These foreign direct investors could be individuals, corporate organizations or a nation (Odiase, 2006). Foreign direct investment refers to an investment in the form of either establishing a business or acquiring business assets by an individual or a company in a country other than the country of origin of the investor (John, 2016). Investments from foreign sources are mostly sourced by transition and developing countries in a bid that such investments would add value to the country through economic growth, transfer of technology, capital accumulation and enhancement of human capital development, which may be achieved through education, trainings, and the transfer of management skills (Buckley, *et al.*, 2002). Similarly, Financial Times Lexicon defines FDI as an investment which imbues controlling ownership in a business based in a country other than that of the investor (lexicon.ft.com). These definitions imply that FDI is defined by foreign controlling ownership which involves the external inflow of financial, human and real resources into a country from outside (Olaniyi *et al.*, 2018). Ndagi (2016) clarifies that FDI is established when a foreign investor acquires at least 10% of the shareholding and voting rights of a foreign enterprise. This point brings clarity on the issue of controlling ownership. The acquisition of the minimum 10% shareholding proportion is deemed substantial and this gives the foreign investor a lasting management interest in the investee.

The importance of FDI which places it as a vital economic matter of concern is that through FDI, capital, technology and other managerial expertise, are sourced from foreign countries. It is true that FDI may be motivated by a number of reasons. Some of these reasons may be higher average rates of profits, markets and resources, development of new resources or tax incentives (Berkeley, 2019; Essays, 2018). Countries are in constant competition to attract FDIs and the extent of investment depends on the tax policies such as corporate income tax reductions, tax holidays, accelerated depreciation, investment tax credits, and preferential treatment of income such as low taxes on earnings from exports (Kersan-Skabic and Mirkovic, 2015).

## **THEORETICAL FRAMEWORK**

The theory upon which this study anchor is discussed in this section

### **Tax Competition Theory**

The theory underpinning this study is the tax competition theory. The theory was proposed by Oats in 1972 and stipulates that in order to encourage the inflow of valuable resources and reduce the outflow of production resources, governments deliberately reduce economic burdens. Therefore, Kiburi, *et al.*, (2017) suggests that the tax

competition theory may be used to understand governments efforts to reduce economic burdens in order to bring in more foreign investments such as skilled and qualified human capital and financial investments into the country. Tax competition theory refers to the concept of countries strategically lowering their tax rates to attract foreign businesses and investment, with the goal of boosting economic growth and competitiveness. This practice often involves a race to the bottom as nations seek to outdo each other in offering more favorable tax environments. The theory is rooted in the belief that lower taxes can encourage foreign direct investment (FDI), which, in turn, can lead to job creation, technology transfer, and economic development. Nigeria, as a developing country, has been actively engaged in tax competition to attract FDI. The Nigerian government has employed various strategies to incentivize foreign companies to invest in the country. By offering tax incentives, such as reduced corporate tax rates, exemptions, and tax holidays, Nigeria aims to make itself a more attractive destination for foreign investors. These policies are designed to stimulate economic growth, create employment opportunities, and encourage the transfer of technological know-how. However, the effectiveness of tax competition and its impact on FDI in Nigeria is a subject of debate. While lower tax rates can indeed attract foreign investors, the sustainability of such a strategy is questionable. Heavy reliance on tax incentives can lead to reduced government revenue, potentially affecting public services and infrastructure development. Moreover, the benefits of FDI might not always trickle down to the broader economy, as they could be concentrated in specific sectors or regions, leaving other areas untouched.

### EMPIRICAL REVIEW

Some selected empirical studies are reviewed in this section.

Olaniyi, *et al.*, (2018) investigated the impact of specific tax based policy incentives (company income tax incentives, petroleum profit tax incentives, value added tax incentives, customs and excise duties incentives) on inflows of FDI in Nigeria. The study covered a period of 23 years (1994 – 2016). Secondary data collected from CBN database was analysed using multiple regression and correlation techniques. The findings of the study showed that all the incentives studied, with the exception of company income tax incentives and petroleum profit tax incentives, had a significant impact on FDI. It was concluded that tax incentive policy plays a significant role in attracting FDI.

Tapang, *et al.*, (2018) conducted a study which was focused on the effect of tax incentives on FDI in the Nigerian petroleum industry. The tax incentive measures were investment tax allowance, non-productive rent and capital allowance. Secondary data were collected and used for the study. The result of the regression analysis which was conducted showed that tax incentives have a significant effect on FDI in Nigeria. It was



therefore recommended that effective implementation of this incentives is necessary in order to ensure maximal benefit by investors.

Amuka and Ezeudeka (2017) did an investigation to find out whether the introduction of tax incentive policy produces a significant change on the pattern of FDI flow in the non-oil sector of Nigeria. Companies income tax and investment allowance were the tax incentives considered. Secondary data was used for the study. Ordinary least square econometric analysis was employed for the data analysis. The findings of the study indicated that the introduction of tax incentives policy change the pattern of FDI flows in the sector. This suggests that tax incentives can be utilized as a veritable tool for attracting FDI in the non-oil sector.

Kiburi, *et al.*, (2017) investigated whether the tax incentive policy has any significant effect on the flow of foreign direct investment to the non-oil sector. Multiple regression model was adopted which was transformed into log-log model in the analysis. Regime switch model helped us to evaluate the effectiveness of the policy introduced in late 1999. Both company income tax and investment allowance appeared with the right sign. The results indicated that the tax incentive policy influence the flow of foreign investment to the non-oil sector, showing that the country's tax incentives can help revive the ailing non-oil sector.

Kwaji and Dabari, (2017), examined the impact of foreign direct investment on the Nigeria manufacturing sector: A time series analysis. Using ordinary least square regression method, they found that foreign direct investment into the sector has helped to improve local manufacturing firms to produce goods not only to meet local market demands but also to seek for the expansion in the export markets. This study only investigated FDI to the manufacturing sector without tax implications which the current study seeks to address.

Akinwunmi, *et al.*, (2017) examined the effect of the multiplicity of taxes on foreign direct investment in the Nigerian tax environment. They examined the effect of taxes such as companies' income tax, education tax, value added tax, custom and excise duties and inflation on foreign direct investment for the period 1996 to 2015, using *ex-post facto* research design. Data gathered were analysed using multiple regression technique and they found that there is an inverse relationship between multiple taxes and Foreign Direct Investment (FDI) in Nigeria; which implies that the higher the taxes, the less the FDI inflows into the country. They however observed that, the presence of multiple taxes hinders investments from foreigners and therefore recommended that if Nigeria wants to secure a place as an economically viable nation in Africa, it must strive and achieve an internationally competitive tax system by eliminating all forms of multiple taxes in the country. Their study did not address the gains brought about by FDI in the form of taxation which the current study is about.

## RESEARCH DESIGN

This researcher would adopt the *ex-post facto* research design because secondary data is required. The adaptation of this research design is to enable the researcher examine the relationship between the variables of the study and because the facts (data) for use already exists.

## ECONOMETRIC MODEL SPECIFICATION

This research adapted the econometric model previously used by Saidu (2015) who empirically examined the relationship between corporate taxation and FDI in Nigeria between 1970 and 2013. Thus, the model for this research is specified as follows:

$$FDI = f(PPT) \quad \text{Model (3.1)}$$

Where:

FDI = Foreign Direct Investment

PPT = Petroleum Profit Tax

From the above specified model, the econometric model for this research would be specified thus:

$$FDI = \beta_0 + \beta_1 PPT + \mu \quad \text{Model (3.2)}$$

Where

$\mu$  - Stochastic variable

f - Functional notation

## DATA ANALYSIS

### Descriptive Statistics

**Table 1: Descriptive Statistics**

	<i>PPT</i>	<i>FDI</i>
Mean	5335576.	2.87E+09
Median	639200.0	1.87E+09
Maximum	32010000	8.84E+09
Minimum	3746.900	73400000
Std. Dev.	10003489	2.58E+09
Skewness	1.760485	0.799060
Kurtosis	4.380106	2.513335
Jarque-Bera	24.43245	4.767673
Probability	0.000005	0.092196
Sum	2.19E+08	1.18E+11
Sum Sq. Dev.	4.00E+15	2.66E+20
Observations	41	41

Source: Researcher's Computation (2023)

The descriptive statistics presented in Table 1 shows that PPT has mean value of N5.335576 trillion, while FDI has N287 billion. Note that the Mean describes the average value for each data series in the model. The Table further reveals that all the variables are skewed to the right.

Kurtosis measures the peakness or flatness of the distribution of a series. The kurtosis of a normal distribution is 3. If it exceeds 3, it means that the distribution is peaked or leptokurtic relative to the normal. Conversely, if it is less than 3, it shows that the distribution is flat or platykurtic relative to the normal. Table 1 further reveals that PPT has a Kurtosis value of more than 3 which means that they are peaked or leptokurtic. While FDI had a Kurtosis value of less than 3 meaning it is flat or platykurtic.

Jarque-Bera (JB) tests whether the series is normally distributed or not. The test statistic measures the difference of the skewness and kurtosis of the series with those from a normal distribution. In JB statistic, the null hypothesis which states that the distribution is normal is rejected at 5% level of significance. From the results of the analysis presented in Table 1 above, PPT had Probability value of less than 0.05, while FDI had a Probability value greater than 0.05% as such, we conclude that PPT is normally distributed, but FDI isn't. The number of observations of 41 depicts the duration or scope of this study, being 41 years. Although these skewness and kurtosis indicate departure from normality, such points are not strong enough to discredit the goodness of the dataset for the analysis in view.

### Co-integration Regression Results (FDI)

**Table 2 Inferential Result**

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Dependent Variable: FDI  
 Method: Fully Modified Least Squares (FMOLS)  
 Date: 08/01/23 Time: 09:16  
 Sample (adjusted): 1986 2021  
 Included observations: 36 after adjustments  
 Cointegrating equation deterministic: C  
 Long-run covariance estimate (Bartlett kernel, Newey-West fixed bandwidth = 4.0000)

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<i>Variable</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-Statistic</i>	<i>Prob.</i>
FDI(-1)	0.670866	0.096943	6.920206	0.0000
PPT(-1)	-87.06864	29.25614	-2.976081	0.0078
C	1.02E+08	1.06E+08	0.958732	0.3497
R-squared	0.945414	Mean dependent var		3.24E+09
Adjusted R-squared	0.899447	S.D. dependent var		2.53E+09
S.E. of regression	8.04E+08	Sum squared resid		1.23E+19
Long-run variance	1.36E+17			

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Source: Researcher's Computation (2023)

The Fully Modified Least Squares (FMOLS) result as shown in the Table above suggests that the explanatory variable has negative influence on the explained variable. That is, the independent variable in the model exerted negative influence on the dependent variable. The result further revealed that a unit increase in one period lag of petroleum profit tax would bring about one period lag 87.1 unit decrease in foreign direct investment.

A keen observation of the result showed that the R-squared and Adjusted R-squared was approximately 0.95 and 0.90 respectively. This means that the explanatory variable accounted for about 95% variations in the explained variable. Put differently, about 95% variation in foreign direct investment was explained by the independent variable, while the remaining 5% may be attributed to variables not captured in the model (stochastic variables).

### Diagnostic Test

**Table 3 Auto-correlation Test**

<i>Autocorrelation</i>	<i>Partial Correlation</i>		<i>AC</i>	<i>PAC</i>	<i>Q-Stat</i>	<i>Prob*</i>
*** .	*** .	1	-0.345	-0.345	4.6636	0.031
. .	.* .	2	0.028	-0.104	4.6945	0.096
** .	** .	3	-0.211	-0.272	6.5424	0.088
. *.	. .	4	0.164	-0.013	7.6922	0.104
. .	. .	5	-0.001	0.032	7.6922	0.174
. .	. .	6	0.014	0.001	7.7011	0.261
.* .	.* .	7	-0.107	-0.071	8.2380	0.312
.* .	** .	8	-0.135	-0.241	9.1290	0.332
. *.	.* .	9	0.084	-0.105	9.4840	0.394
.* .	** .	10	-0.116	-0.253	10.190	0.424
. *.	.* .	11	0.135	-0.079	11.184	0.428
. .	. *.	12	0.044	0.112	11.295	0.504
.* .	.* .	13	-0.132	-0.148	12.335	0.500
. .	.* .	14	-0.058	-0.178	12.547	0.562
. .	** .	15	0.012	-0.212	12.557	0.636
. *.	. .	16	0.207	-0.026	15.480	0.490

Source: Researcher's Computation (2023)

This test is carried out to further test for auto correlation. The result of Correlogram Q-Statistic in Table 3 suggest that the variables are free from auto correlation.

The correlogram Q- Stat. table indicates that all p-values were >5% hence the conclusion that the model was free from auto correlation.

### Test of Hypotheses

The researcher tested four hypotheses which were earlier stated in null form. The purpose of this section is to draw inferences following the results obtained from data analysis and hypotheses testing.

**Decision Rule:** The researcher used critical values like p-value as the basis for acceptance and rejecting of null hypotheses. Where the critical p-value computed is less than 5% significance level, the variable was taken as being significant, hence it was rejected.

**Table 4: Test of Hypothesis One**

H0: Petroleum profit tax has no significant relationship with volume of foreign direct investment in Nigeria

<i>Variables</i>	<i>Coefficient</i>	<i>t-Statistic</i>	<i>P-value</i>
PPT	-87.06864	-2.976081	0.0078

Source: Researcher’s Computation (2023)

The test of hypothesis (H0) revealed that the p-value of **PPT** is less than 0.05 significance level, with a probability value of 0.0078. The researcher therefore rejects the null hypothesis. This result shows that petroleum profit tax have significant relationship with foreign direct investment in Nigeria.

### CONCLUSION

This study investigated the effect of Petroleum profit tax on foreign direct investment in Nigeria. The study used petroleum profit tax as independent variable, to test their effect on the dependent variable being foreign direct investment. The results of Fully Modified Ordinary Least Squares revealed that petroleum profit tax had significant negative effect on foreign direct investment in Nigeria, meaning that once the petroleum tax rates are increased, there is bound to be a reduction in the volume of foreign direct investment inflow into Nigeria. If the government of Nigeria wants to improve foreign direct investment through taxation, there should be a review in tax policies. From the foregoing, this study concludes that taxation had significant effect on foreign direct investment in Nigeria within the period of review.

### Recommendations

Based on the results discussed in the foregoing paragraphs, government and policymakers in Nigeria should consider the following recommendations to increase the volume of foreign direct investment inflows in to Nigeria.

- (i) Since petroleum profit tax recorded a significant negative relationship with foreign direct investment in Nigeria, it is recommended that government should review the rates charged on petroleum related produce in order to encourage foreign companies to come in and invest in our downstream sector.

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