CORPORATE INCOME TAX AND FOREIGN DIRECT INVESTMENT IN NIGERIA

Ikhenade F. A. OSEROGHO, Ph.D
Department of Accounting
Wellspring University,
Benin City, Edo State
Faioserogho@gmail.com

Professor Alade Sule OMOYE
Head of Department of Accounting,
University of Benin, Benin City.
alade.omoye@uniben.edu

Abstract

Corporate income tax has an impinging role on foreign direct investment in Nigeria, as investors usually consider the corporate income tax environment as criteria for investment decisions. This paper empirically examines the impact of company income tax on foreign direct investment (FDI) in Nigeria. The choice of the period was dictated by data availability as well as the fluctuating nature of FDI inflow in Nigeria during the period. Annual time series data covering the period 1986 to 2017 were sourced from the CBN Statistical Bulletin. A dynamic framework involving unit root testing, co integration and error correction modeling techniques was used. The empirical findings reveal that statutory company income tax has a negative relationship with FDI in Nigeria. Lending rate on loanable funds is positively and significantly related to FDI. Infrastructure (proxy by ICT) is found to be positively related to FDI, the impact which is however weak, due to the low level of infrastructural development in the country. Inflation (proxy for macroeconomic environment) is negatively and significantly related to FDI, given a t-ration of 1.72 (in absolute values) which was significant at the 10 percent level. The result also show evidence of a negative and significant relationship between the political variable and FDI in Nigeria. Against the backdrop of the foregoing findings, The study recommended that institutional reform of the tax policy to make it investment-enhancing, provision of good and reliable infrastructure, sound and stable macroeconomic policies that will tame domestic inflationary pressures and guarantee appropriate interest rates, and stable political and institutional environment that will enhance foreign direct investment in Nigeria Political stability.

Introduction

The Black Law Dictionary defined tax as 'a rateable portion of the produce of the property and labour of the individual citizens, taken by the nation, in the exercise of its sovereign rights, for the support of government, for the administration of the laws, and as the means for continuing in operation the various legitimate functions of the state'. The Institute of Chartered Accountants of Nigeria (2006) and the Chartered Institute of Taxation of Nigeria (2002) view tax as 'an enforced contribution of money, enacted

pursuant to legislative authority. In line with section 8 (1) of the companies income tax Act 1990, taxes are payable as specified upon profits of any company accruing in, derived from, brought into, or received in Nigeria in respect of amongst others, any trade or business for whatever period of time the trade or business may have been carried out (Adegbie & Fakile, 2011).

The current companies' income tax rate is 30% of assessable income. Company or corporate income tax is primarily payable on profits at the companies' income tax rate of 30%. However, as foreign companies liable to such tax do not ordinarily operate in Nigeria, and thus account to the Federal Board of Inland Revenue (FBIR) with full accounts. The law permits FBIR to deem a position of the foreign company's turnover or gross income as profit. As such, the deemed income of the company will be 20% of the turnover. Such deemed income so assessed will itself be liable to tax at the current companies tax rate of 30%, which final assessment will amount to 6% of total income. Effectively, the company will be assessed for income tax at 1% of its turnover, as 5% would have been withheld. Section 57 CITA 1990 mandates companies operating in the Nigerian Stock Exchange to file monthly returns with the Federal Board of Inland Revenue not later than 7 days after the end of each calendar month (Adegbie & Fakile, 2011).

Corporate income tax has an impinging role in attracting foreign direct investment in any country. Although, tax policies are not the most important determinant of foreign direct investment, they can have a major impact on investment decisions through their effects on the cost of capital and on the expected profitability from a given investment. In a globalized world characterized by increased capital mobility, a well-designed and administered tax system can have a strong impact in attracting investment (Clark, 2005). Investors benefit from lower tax rates and less complicated tax administration, while the government benefits from lower incidence of tax evasion, avoidance and other subversive tendencies. In general, there is a consensus among economists and financial experts that high corporate income tax tend to reduce foreign direct investment and business capital formation. There have not been substantial empirical investigation into this link, particularly in Nigeria, as opposed to developed countries where the effect of tax on foreign direct investment has been widely investigated. This perceived gap created by this, warrants an investigation into the corporate income tax-foreign direct investment nexus in Nigeria.

Aside this introduction, the rest of the paper is structured as follows. Section two presents the literature review, which considers the theoretical and

empirical literature, as well as some stylized facts on FDI inflows in Nigeria. Section three deals with the methodology, encompassing the model, data and estimation technique. The empirical results and analysis is presented in section four, while the conclusion and policy prescriptions are presented in section five.

Literature Review

Conceptual Clarification

The Institute of Chartered Accountants of Nigeria (2006) and the Chartered Institute of Taxation of Nigeria (2002) defined tax as 'an enforced contribution of money, enacted pursuant to legislative authority. Section 8 (1) of the companies income tax Act 1990, defines company income tax as 'taxes upon profits of any company accruing in, derived from, brought into, or received in Nigeria in respect of amongst others, any trade or business for whatever period of time the trade or business may have been carried out (Adegbie & Fakile, 2011).

Theoretical Framework

The Hall and Jorgenson model of investment also known as the 'user cost of capital theory' developed in separate works by Jorgenson (1963) and Hall and Jorgenson (1967) is one of the most intuitive theories of tax-investment relationship. . The theory is critical in that it tries to show the relationship between corporate income tax rate, investment output level, and depreciation allowances.

Abstracting from a representative firm that produces a given output using capital, they maintained that investment is inversely related to the cost of capital, or rate of loanable funds for investment (being interest rate) and directly related real output. With the assumption of no taxes and absence an investor is indifferent between putting his money in the bank to earn interest and investing it in capital, at a given cost of capital. With the introduction of corporate tax rate (which is 30 percent in of company income profit in Nigeria), the cost of capital will rise, resulting to lower level of investment.

The model therefore posits that taxes have an accentuating effect on cost of capital, while cost of capital tends to reduce (diminish) investment level. Thus, taxation reduce investment through the capital cost channel. According to Gemmell*et al* (2010), the theory enable us to calculate the effect of

corporate income tax rate, which affects the cost of capital on investment. The tax component or of the user cost of capital thus has an inverse relationship with investment level. A change in tax policy would therefore imply a change in then the level of investment. Blundell-Wignall and Roulet (2013) have however noted that the assumed corporate tax policy in the theory depends on (time factor showing that investment incentives depend on the expectation of future rates of corporate income tax and depreciation of investment. For example, with zero depreciation allowance, an investment tax credit of the same magnitude as the corporate income tax rate is required to give the same investment incentives as under a no tax system.

Empirical Review

Schwellnus and Arnold (2008) use a sample of firm-level data for OECD countries over the 1996-2004 to investigate whether firms facing higher corporate tax rates on their profits exhibit lower total factor productivity (TFP) and investment levels compared to firms facing lower corporate tax rates. Using an econometric model of innovation and productivity similar to that proposed by Griffith et al. (2006) find that higher corporate tax rates, through their effect on the post-tax user cost of capital have significant adverse effects on firm's investment levels, the findings show that firm level countries with high corporate taxes face lower productivity and investment output.

Miao and Wang (2009) examine the impact of corporate taxes on investment. The evidence show that corporate tax policy is an important instrument to influence firms' capital investment decisions and higher level of corporate tax has a dis-incentive effect on investment. Its transmission channel, according to the authors is through either the user cost of capital to investment.

Djankov*et al* (2009) examine the effect of corporate taxes on investment and entrepreneurship in Asia. The results show that high corporate income tax has a deteriorating effect on investment and private enterprise. Liu (2011) examines whether taxes distort multinational corporations' investment choices using evidence from industry data level in China. The findings show that high taxes discourages multinational corporation investment choices.

Gemmell (2010) use micro-level data to examine the response of firms' productivity levels or investment growth rates to various tax policy settings. They investigate the extent to which corporate tax settings might affect

firms' innovation and risk-taking activity and also examine how various indicators of firm-level innovation/technology can provide better proxies for the impact of taxes on investment productivity via innovation effects than those based on firm profits. The findings show that corporate income tax has a significant negative effect on innovation and risk-taking activity of foreign investors and that high income tax reduces investment productivity.

Liu (2011) analyzed the effect of corporate income taxes on the allocation of new capital investment in the U.S. economy by constructing an industry-level panel data from 1962 to 1997. The results from the instrumental (IV) estimates show significant investment distortion effect of corporate income taxes.

Miaoand Wang (2014) studied the impact of corporate tax policy on lumpy investment (foreign direct investment). The evidence shows that tax policy has a significant impact on investment choices, particularly foreign direct investment.

Methodology

Method of Data Analysis and Sources of Data

The study employs unit root testing, Cointegration, Error correction Model (ECM) testing to examine the empirical nexus between monetary policy and real output. As a prelude to this, we investigate the unit root properties of the time series variables since the regression of non-stationary time series variable on another may yield spurious and inconsistent parameter estimates (Engle and Granger, 1987).The study covers the period of (1986 – 2017). The choice of the period is dictated by data availability. The data are obtained from the Central Bank of Nigeria (CBN) Statistical Bulletin.

Model Specification

In order to examine a more systematic relationship between monetary policy and real output in Nigeria, in terms of the transmission, we specify a stylized functional model of:

FDI= f (CIT X)……. (1)

Where FDI =foreign direct investment (measured as FDI to GDP percent), CIT= company income tax rate, and Xis a vector of other macroeconomic variables according to the literature, that largely influence foreign direct investment inflows. The inclusion of these variables is based on theory and

extant literature, the purpose, which is to avoid omitted variable bias. The variables are interest rate (measured as lending rate) on funds; infrastructure (measured by information communication technology- ICT). As a proxy for this variable, we used the number of telephone mainlines and mobile subscribers per 1000; inflation rate (a measure of the macroeconomic policy environment)-measured as changes in the consumer price index (CPI) and political stability- to capture the political environment, as the level of political stability is one of the factors the multinational companies considers in deciding the location and size of investment (Asiedu, 2006, cited in Mijiyawa, 2015). As proxy for this, we used a dummy variable, where 1 represents years of constitutional democracy and 0 for years of dictatorship under military rule. On the inclusion of these variables, the extended functional form of the model is thus:

FDI = f (CIT, INT, INFR,INF, POL)……(2)

The empirical specification of the model to be estimated is therefore:

$$FDI=, \alpha_0 + \alpha_1 CIT + \alpha_2 INT + \alpha_3 INFR + \alpha_4 INF + \alpha_5 POL + \varepsilon_t \ldots\ldots\ldots\ldots\ldots\ldots (3)$$

Where CIT, INT, INFR, INF and POL are as earlier defined.

The *a priori* expectations are $\alpha_1, \alpha_2, \alpha_4 < 0$; $\alpha_3, \alpha_5 > 0$.

Where $\alpha_0 - \alpha_5$ are parameters to be estimated and ε_t is the error term.

Results and Analysis

Unit Root Testing

A time series is stated as non-stationary if mean and variance of the time series is time-dependent. On the other hand, a time series is stationary if the mean and variance are non-reverting over time. Generally, unit root test involves the test of stationarity for variables used in regression analysis. The importance of stationarity of time series used in regression borders on the fact that a non-stationary may produce bias, spurious and inconsistent estimates. This makes forecasting based on such time series to weak. The Augmented Dickey Fuller (ADF) test is employed in order to analyze the unit roots in this study. The results are presented in levels and first difference in table 1 below:

Table 1. Unit Root Test for Variables in levels and First Difference

Variable	ADF Statistic (in Levels)	ADF Test Statistic (in First Difference)	Order of Integration	Remark
FDI	-1.228	-5.772**	I(1)	Stationary
CIT	-1.015	-4.845*	I(1)	"
INT	-1.189	-5.661**	I(1)	"
INFR	-0.898	-5.832**	I(1)	"
INF	-1.0212	-5.128**	I(1)	"
POL	-0.706	-4.753**	I(1)	"

(**) denotes significance at 5% (1%) level

Source: Author's computation (2019)

A cursory examination of the unit root test results using the ADF statistic indicate for all the variables, the null hypothesis of no unit root could not be rejected, implying that the variables were non-stationary at levels. However, after first differences, the variables became stationary. This implies that the variables are difference-stationary, attaining stationary after first difference. They are thus integrated of order one (i.e. I[1].

Test of Cointegration

Having established that the series in the analysis are not stationary in their levels, we move on to determine if they are cointegrated. Co-integrationof a vector variable implies that the number of unit roots in the system is less than the number of units in the corresponding univariate series (Granger & Weiss, 1983; Granger, 1986; Engle & Granger, 1987). The Johansen Cointegration method is used for this analysis because the study involves the use of multivariate estimations. The results from the multivariate

cointegration test are presented in Table 2. As can be seen from the table, the λ-max test statistics indicate that there is at least four significant cointegrating vector among the variables since the hypothesis of no cointegrating vector (r=0) is to be rejected. Apparently, the number of cointegrating relations or vectors (indicated by r) is at least four. The implication of this is that a long run relationship exists between the corporate income tax, other explanatory variables and foreign direct investment in Nigeria.

Table 2: Johansen Multivariate Cointegration Tests Results.

Maximum Eigenvalue Test			
Null Hypothesis	**Test Statistic**	**Critical Value**	Hypothesized No of CE(s)
r = 0*	165.1	90.2	None**
r = 1*	110.2	65.6	At most 1**
r = 2*	60.3	42.4	At most 2**
r = 3*	30.2	20.3	At most 3**
r = 4*	5.4	4.2	At most 4*
r = 5*	0.02	0.05	At most 5

(**) denotes rejection of the hypothesis at 5% (1%) significance level.
Source: Author's computation extracted (2019)

Error Correction Model

The results of the error correction model, showing the response of foreign direct investment (FDI) to corporate income tax and other relevant variables is presented in table 3.

Table 3.Error Correction Model Results

Dependent Variable: FDI		
Variable	**Coefficient**	**t-ratio**
C	0.192	1.48

CIT	-0.077	-1.35
INT	-0.091	-2.03
INFR	0.053	1.52
INF	-0.044	-2.22
POL	-0.051	-1.72
ECM(-1)	-0.734	-2.81
$R^{2=}$0.94; Adjusted R^2=0.90.	F-Value= 82.4	DW Statistic=1.8

The adjusted R^2 value of 0.90 is shows that 90 percent of the systematic variations in foreign direct investment inflows in Nigeria is explained by the independent variables and the ECM, thus making the predictive ability of the model good. The F-value of 82.4 is highly significant at the 1 percent level, validating the hypothesis of the existence of a significant linear relationship between FDI and all the independent variables combined in the short-run. The Durbin Watson statistic of 1.8 shows that there is no serial correlation in the model, implying that the model is reliable for policy purposes. The coefficient of company income tax is appropriately negative in line with theoretical expectation but fails the significance test at the 5percent level. Thus, rising corporate tax has a destabilizing effect on foreign direct investment in Nigeria, since it feeds into the cost of capital; the effect which is to reduce investment levels of firms. The effect is however not significant (weak) owing to the fact that despite the observe negative relationship, high corporate tax rate or average tax rate may not constitute a strong dis-incentive to foreign direct investment since other critical factors are usually considered by foreigners in determining the direction (location) and size of investment. Such factors include, the profit rate, repatriation, and macroeconomic and institutional variables. The coefficient of real interest rate is negative in line with loanable cost of capital theory and passes the significance test at the 5 percent level. Thus, rising interest rate (cost of loanable funds) has a dis-incentive effect on foreign direct investment inflows to Nigeria since borrowing for investment purposes becomes costly, thus reducing the level of firm investment. Infrastructure (proxied by information communication technology) ha the expected positive sign but is

not statistically significant at the 5 percent level. This could be due to the low level of infrastructural development in Nigeria. Since the t-value of its coefficient is greater than unity, we may infer that infrastructure development facilitates foreign investment inflow but its effect is rather weak due to the low level of infrastructure and technological development in the country.

The coefficient of inflation is negative in line with the theoretical expectation and passes the significance test at the 5 percent level. Thus, rising inflation rates has a detrimental effect on foreign direct investment inflows, as creates an economic environment of instability, creating uncertainty in investment decisions. The coefficient of political stability is at variance with apriori expectation and statistically significant at the 10 percent level. Thus, the as the level of political stability is one of the factors the multinational companies considers in deciding the location and size of investment. The observed negative sign may be due to the poor political environment in Nigeria, particularly long years of military dictatorship and arm struggle in Eastern part of the country-orchestrated by the Independent People of Biafra (IPOB), the Niger Delta, militant struggle for resource control and the Boko Haram insurgents in the Northern part and the dastardly Fulani herdsmen attack. Apart from the diagnostic statistics, the coefficient of the error term is appropriately negative and significant at the 5 percent level. Its coefficient indicates that the contemporaneous speed of adjustment of foreign direct investment inflows to long-run equilibrium after temporary disequilibrium and perturbation is 73 percent.

Conclusion

This paper empirically examined the impact of corporate income tax and other variables on foreign direct investment in Nigeria. The empirical results show that rising corporate income tax has a negative (destabilizing) effect on foreign direct investment inflows in Nigeria. The effect of lending rate (a measure of the loanable cost of capital) on foreign direct investment is negative and significant. Infrastructure (measured by ICT) is found to have a positive but weak impact on FDI in Nigeria, due apparently to the low level of infrastructural development in the country, particularly the poor and epileptic power supply. Inflation is negatively and significantly related to FDI inflows, implying that rising inflation rate has a detrimental effect on foreign direct investment. The political institutional variable is negatively and significantly related to FDI inflows in Nigeria, due to the poor political and institutional environment.

Policy Recommendations

Based on the findings of this study, the following policy recommendations are made:

(i) Appropriate institutional tax reforms should be carried out in order to enhance investment inflows in Nigeria. Focus should be given to the elimination of double-standard, multiple and sometimes complex tax rules and rates.

(ii) Increased government investments in public infrastructure, particularly, ICT and power that will guarantee effective and efficient public service delivery are important.

(iii) Sound and stable macroeconomic policy environment in terms of low inflation rate and appropriate interest rate should be implemented.

(iv) Strong institutional and political reforms are necessary to stabilize the political environment, along with strong and effective policies and strategies and government effectiveness that effectively restrains all form of conflicts and insurrection in order to enhance foreign direct investment in Nigeria.

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