



Insurance Sector Development and Foreign Direct Investment in Nigeria

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Authors' contributions

This paper work was carried out in collaboration between both authors. Author GPE designed the study, performed the statistical analysis, wrote the protocol and the first draft of the manuscript. Author ETT managed the analyses of the study, the literature searches and read and approved the final manuscript.

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ABSTRACT

Aims: The study examined the impact of insurance sector development on foreign direct investment in Nigeria.

Study Design: The ex-post facto research design was employed to observe the study components in retrospect. Secondary data spanning 1996 to 2017 was sourced and collated from the World Development Indicators, Central Bank of Nigeria statistical bulletin and National Insurance Commission annual balance sheets.

Place and Duration of Study: Department of Banking and Finance, Niger Delta University, Wilberforce Island, Bayelsa State, Nigeria. The study was carried out between November 2019 to January 2020.

Methodology: The ex-post facto research design was employed to observe the study components in retrospect. Secondary data spanning 1996 to 2017 was sourced and collated from the World Development Indicators, Central Bank of Nigeria statistical bulletin and National Insurance Commission annual balance sheets. The time series data was estimated using the least square

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technique.

Results: The results indicates that; the total asset size of the insurance sector exerts a negative and statistically insignificant impact on foreign direct investment inflow to Nigeria, total insurance business investment exerts a positive and statistically insignificant impact on foreign direct investment inflow to Nigeria and finally, total insurance premium exerts a negative and statistically significant impact on foreign direct investment inflow to Nigeria.

Conclusion: The study concludes that insurance sector development does not attract foreign investment inflow to Nigeria. The study recommends that the insurance sector should be revamped in order to absorb risk and uncertainty and be a vehicle for risk transfer and minimization. A policy of restructuring would help instil public confidence, boost insurance policy sales, increase insurance premium and invariably increase the availability of investible funds to boost economic activity. The study suggests that these would help attract foreign direct investment to meet domestic funding needs of Nigeria.

Keywords: Central Bank of Nigeria; National Insurance Commission; foreign direct investment; insurance sector development.

1. INTRODUCTION

One profound attribute of developing economies is paucity of funds to meet its economic growth targets. Over the years, developing countries are known to scabble for additional capital to meet their growth objectives. This has been a huge challenge and evidently, there has been a huge gap between the funds needed and the actual funds raised to stimulate the growth agenda of developing nations. Foreign direct investment has various been identified as a leeway to meet the funding needs of developing economies like Nigeria. This is the case especially in this era of economic globalisation and integration of world financial and payment systems. Thus, capital inflow serves an additional source of funding to supplement domestic capital to enable industrialisation, capital formation and economic growth in Nigeria. Consequently, the impact of capital inflow on economic growth has sanctioned several dissertations. Plethora of empirical studies tends to suggest that foreign direct investment stimulate economic growth in Nigeria Yaqub et al. [1]; Olokoyo, [2]; Adeleke et al. [3] and Umoh et al. [4]. According to Olokoyo [2] capital inflow also stimulate employment creation, transfer of technology, increased domestic innovation, competition and other helpful externalities to the host nation. On this premise, developing economies have continuously carried out holistic macroeconomic policy reforms to attract external capital inflow to the host nations.

Manifestly, external capital inflow and transnational corporations are highly sensitive to happenings in their host nations (more especially developing nations). The economic and political

environments of developing nations are highly unstable and volatile (Waller-Hunter and Jones, 2002). Delicate countries are unable to attract the foreign capital inflow which is needed for economic expansion in big part because of extraordinary intensities of risk on investments [5]. Aside political risks, for instance, they have the common features of rising prices and lending interest rates, unemployment and poor aggregate demand [6]. Consequently, macroeconomic stability is one of the fundamental stimulants of external capital inflows to host nations. The development of the financial system plays an integral role in this regard.

Insurance is one of the cornerstones of modern day financial services sector. In addition to its traditional role of managing risk, insurance market activity, both as intermediary and as provider of risk transfer and indemnification, it also promote growth by allowing different risks to be managed more efficiently through promoting long term savings, encouraging the accumulation of capital, serving as a conduit pipe to channelling funds from policy holders to investment opportunities as well as mobilizing domestic savings into productive investment. Insurance is an indispensable aspect of a nation's financial system and theoretical conceptions explain that financial systems influence savings and investment decisions through lowering the costs of researching potential investments, exerting corporate governance, trading, diversification and management of risk, mobilization and pooling of savings and mitigating the negative consequences that random shocks can have on the economy. Insurance by reducing uncertainty and volatility, smoothen the economic cycle and

reduce the impact of crisis situations on the micro and macro level. Consequently, insurance sector development instils stability in the economic system. Insurance corporations absorb risk and uncertainty associated with economic activity; the absence of such an entity impairs the flow of investible funds and economic activity [7]. According to Iyodo, Samuel and Inyada (2018), insurance corporations give investors (local and foreign) the faith to invest in a business without fear of losing their investments. This implies that insurance sector development could help attract foreign direct investments.

Empirical studies on the interaction between insurance sector development and foreign direct investments are scanty. Evidently the major area of empirical investigation is the growth stimulating role of insurance sector development on economic growth. It is on this premise, the researcher decided to empirically interrogate the impact of insurance sector development on foreign direct investment in Nigeria with the supposition that the results may swing either way towards lending credence to whether there is a link between insurance sector development and external capital inflow or not. The timing of this study is unique due to the fact that domestic funds alone is not adequate to stimulate the much needed growth in the face of dwindling economic activity in Nigeria. Secondly, a study of this nature would help bridge the dearth of empirical studies on the interaction between insurance sector development and foreign direct investment in Nigeria.

The remainder of the research paper is arranged as follows: section 2 presents review of related empirical studies; section 3 presents the methodology of the study; section 4 presents empirical results and finally, section 5 concludes the study.

2. REVIEW OF RELATED EMPIRICAL STUDIES

This section presents empirical review of related studies to juxtapose the need to examine the impact of insurance sector development on the inflow of foreign direct investment to Nigeria.

Okolo, Ani and Okolo [8] examined the role insurance play in attracting capital inflow in Nigeria. Time series data spanning 1996-2010 was collated and estimated using the ordinary least square technique. The estimates indicate that insurance premium; asset size of insurance

companies and total investment in the insurance subsector has significant positive impact on foreign direct investment in Nigeria.

Sharma and Kaur [9] examined the impact of foreign direct investment on private life insurance corporations in India. Secondary data was collected from the 10 private insurance companies from 2008 to 2014. Foreign direct investment was regressed on insurance premium, profit & loss, operating expenses and business expansion. The study found that foreign direct investment has significantly impacted the business of private life insurance corporations in India.

Yinusa and Akinlo [10] investigated the impact of insurance development on economic growth in Nigeria. Time series data spanning 1986 to 2010 was collated the Central Bank of Nigeria statistical bulletin, national bureau of statistic and annual abstract of statistics. The data was estimated using the error correction technique. The study assumed that real GDP is a function of insurance premium, human capital, physical capital, inflation and interest rate. The findings indicate that physical capital and interest rate contribute significantly to real gross domestic product in Nigeria. The results also suggested that physical capital and inflation has nonlinear nexus with economic growth.

Oke [11] investigated the impact of insurance sector development on economic growth in Nigeria. Data from 1985 to 2009 was collated and calibrated using the fixed-effect model. The least square technique was used to estimate the model. The dependent variable of the study is gross domestic product while the explanatory measures are numbers of insurance companies, life-insurance premium, non-life insurance premium, total insurance investment, and inflation rate. The findings reveal that insurance sector development has a significant impact on economic growth in Nigeria.

Taiwo, Achugamonu, Okoye and Agwu [12] examined the impact of foreign direct investment on economic growth in Nigeria. To achieve this, secondary data was collated from 87 developing countries from the database of Investing Across Borders. Foreign direct investment was found to be statistically significant on economic growth.

Wang and Li [13] examined the nexus between foreign capital insurance market, foreign direct investment and economic prosperity in China. Time series data spanning 1984 to 2015 was

collated and estimated using multiple regression technique. It emerged that the development of China's foreign capital insurance market has not promoted China's economic growth, FDI has promoted China's economic growth, and China's economic growth has generally promoted the development of foreign capital insurance market. The channels of insurance market acting on economic growth are not smooth enough for foreign capital in China, and its action modes may be mainly applicable to China's domestic insurance market.

Ndem, Onyebuchi and Udo [14] examined the determinants of foreign direct investment and their impact in Nigeria. To achieve this, secondary time series data spanning 1975 to 2010 was collated on exchange rate, market size (GDP), investment in infrastructure, openness and political risks and foreign capital inflow to Nigeria. The data was estimated using the multiple regression technique. The study found that market size (GDP), openness and exchange rate has a significant impact on foreign capital inflow. The evidence showed that political risk bears no consequence on inflow while investment in infrastructure was found to be positive but exerted an insignificant impact on foreign direct investment.

Yaqub et al. [1] investigated the impact of foreign direct investment on economic growth in Nigeria. Time series data was collated on foreign direct investment, gross domestic product, degree of trade openness and labour from the World Development Indicator 2008. The Vector Auto-regression technique was used to estimate the model. The results suggest that foreign direct investment does not granger cause real GDP growth. Moreover it could not be established that capital inflow is a statistically important determinant of real GDP in Nigeria.

Olokoyo [15] examined the growth stimulating role of foreign direct investment on economic growth in Nigeria. Secondary data was sourced from the Central Bank of Nigeria statistical bulletin spanning 1970 to 2007 and estimated using the multiple ordinary least square techniques. The measures of the study are FDI and real gross domestic product. The estimates suggest that the link between FDI and economic growth is robust in Nigeria. However, the results did not infer that capital inflow is not significant but rather economic growth in Nigeria is augmented by other macroeconomic variables. Adeleke et al. [3] empirically investigated the effect of foreign capital on output growth in

Nigeria using the ordinary least square technique. Secondary data was collated on foreign direct investment, gross domestic product, exchange rate and export from the Central Bank of Nigeria statistical bulletin spanning 1999 to 2013. The findings revealed that gross domestic product has a linear relationship within flow of foreign direct investment, which implies that a good performance of the economy is a positive signal for inflow of foreign direct investment.

Umoh et al. [4] examined the impact of the relationship between foreign direct investment on national output growth in Nigeria. The empirical analysis was done using data spanning 1970 to 2007. The data was estimated using the Vector error correction model and the results indicate that that foreign direct investment and economic growth are jointly determined in Nigeria and that there is positive feedback from capital inflow to growth and from growth to FDI.

Danja [15] investigated the impact of external capital inflow on economic growth in Nigeria. Secondary time series data spanning thirty years was sourced and estimated using least square technique. The result suggested that there is a linear nexus between external capital inflow and real GDP. The results further indicate that FDI does not have a significant impact on economic growth in Nigeria.

Oluoma [16] examined the impact of life-insurance penetration, non-life insurance penetration, total insurance penetration and insurance density on economic growth in Nigeria. The study adopted the ex-post facto research design and time series data spanning 26-year (1987-2012). Four hypotheses were proposed and tested using the ordinary least square regression technique. The results emanating from the study indicate that life insurance penetration and insurance density had positive and significant impact on economic growth in Nigeria, both total insurance penetration and non-life insurance penetration had positive but insignificant impact on economic growth in Nigeria under the period of this study.

Olayungbo [17] examine the separate effects of life and non-life insurance on economic growth in Nigeria from 1976 to 2013. The Autoregressive Distributed lags (ARDL) was adopted given the different order of integration of the variables of interest. The bound test estimates show that run relationship to exist among economic life, non-life insurance and economic growth in Nigeria over

the period of study. The long run and the short run dynamics further confirms the positive and significant contribution of life and non-life insurance on economic growth in Nigeria. The paper concludes that life and non-life insurance acts as complements to economic growth in Nigeria rather substitutes.

Fashagba [18] examined the relationship between life and non-life insurance premium and economic growth in Nigeria. Time series data spanning 2007 to 2016 was used for the estimation. The ordinary least square regression was used for the data analysis. The study found that there is a statistical evidence of positive relationship but not significant between non-life insurance economic growth and negative relationship but also significant between life insurance and the economic growth. The study concludes that the changes in non-life insurance positively influence the economic growth positively while life insurance has negative influence on the economic growth.

Olayungbo and Akinlo [19] examined the dynamic interactions between insurance and economic growth in eight African countries for the period of 1970–2013. Insurance demand is measured by insurance penetration which accounts for income differences across the sample countries. A Bayesian Time Varying Parameter Vector Auto regression (TVP-VAR) model with stochastic volatility is used to analyze the short run and the long run among the variables of interest. Using insurance penetration as a measure of insurance to economic growth, we find positive relationship for Egypt, while short-run negative and long-run positive effects are found for Kenya, Mauritius and South Africa. On the contrary, negative effects are found for Algeria, Nigeria, Tunisia, and Zimbabwe.

Oyedotun and Adesina [20] examined the growth of the insurance sector and how the sector has impacted economic growth in Nigeria. Data were collected from secondary sources and it was regressed using ordinary least square at 95% significant level. It was discovered that there is relationship between insurance business and economic growth within the period of study.

Nwafor (2017) investigated the impact of insurance business in Nigeria and its effect on economic growth in Nigeria. A data span from 2007 to 2016 was obtained and estimated using ordinary least squares regression method. Two

hypotheses were subjected under tests and results showed that insurance business in Nigeria has significant impact on economic growth in Nigeria and that insurance business has significant impact on unemployment rate in Nigeria.

Oliver (2016) investigated the pattern of flow between insurance investment portfolio and economic development in Nigeria. Data was extracted from CBN statistical bulletin and World Bank record 2013 and was estimated using the multiple regression analysis and Engle–Granger co-integration and Granger Causality. The individual coefficient result of OLS revealed positive and significance relationship between bills of exchange, investment in stocks and bonds, while inverse and insignificance relationship was found between investments in government securities. The granger causality result revealed that the pattern of relationship between insurance investment portfolio and economic development was demand following in Nigeria.

Etale (2019) examined the interaction between insurance sector development and economic growth in Nigeria. Secondary data spanning 2001 to 2017 was collated and estimated using the ordinary least square technique. Gross domestic product is the dependent variable, while total insurance investment, total insurance premium and total insurance claims are the explanatory variables used in the study. The empirical results showed that total insurance investment, total insurance premium and total insurance claims had positive effect on economic growth. Total insurance investment and total insurance premium was found to be statistically significant, while total insurance claims were found to be insignificant. The study establishes that the insurance sector development contributed meaningfully to economic growth in Nigeria.

Iyodo, Samuel and Inyada (2018) examined the impact of non-life insurance penetration on the economic growth of Nigeria. The ex-post facto study design was adopted for this study. Time series data spanning 1988 to 2014 was from secondary sources and analysed using multiple regression. The findings of the study revealed that non-life insurance penetration had a positive and significant effect on the economic growth in Nigeria during the period.

The empirical review indicates that there are scanty studies on the impact of financial sector

development on foreign direct investment in Nigeria. Thus making it imperative to bridge this gap in knowledge.

3. METHODOLOGY

3.1 Research Design

The study employed the ex-post facto research design to examine the extent of the interaction between insurance sector development and foreign direct investment in Nigeria. Historical data was collated to observe these subjects in retrospect. Additionally, the purposive sampling technique was employed to purposively determine the time scope, the dependent and independent measures of the study.

3.2 Nature and Source of Data

Data for the study was collated from the World Development Indicators, Central Bank of Nigeria statistical bulletin and various issues of annual insurance industry balance sheet, spanning 1996 to 2017. The nature of the data is time series data. The data gave the researcher the period-to-period numeric quantities needed to examine the impact of the explanatory measures (insurance sector development) on the response variable (foreign direct investment) in Nigeria.

3.3 Variables of the Study

The measures of insurance sector development are: total asset size of insurance corporations, total insurance business investment and total insurance premium of insurance companies. These altogether comprise the explanatory variables of the study. The response variable is foreign direct investment.

3.4 Model Specification

In mimicking reality, the study built a multiple regression model following the work of Okolo et al. [9] in extant literature. That is, the study purposively assume that external capital inflow (foreign direct investment) is a function of total asset size of insurance corporations, total insurance business investment and total insurance premium of insurance companies in Nigeria.

The model is mathematically expressed as follows:

$$FDI = a + X_1TAS + X_2TIBI + X_3TIP \quad (1)$$

The model is further expressed econometrically as follows:

$$FDI = a + X_1TAS + X_2TIBI + X_3TIP + u \quad (2)$$

Where:

FDI = Foreign direct investment

TAS = Total asset size of insurance corporations

TIBI = Total insurance business investment

TIP = Total insurance premium of insurance companies

a = Intercept

X_1 , X_2 , & X_3 = Coefficients of the explanatory variables

u = Error term

A priori Expectation: $X_1 > 0$, $X_2 > 0$, $X_3 > 0$

3.5 Methods of Data Analysis and Estimation

The study employs descriptive statistics, Augmented Dickey-Fuller test, cointegration and multiple regression technique to analyse and estimate the data set for the study.

The descriptive statistics was used to ascertain the mean values, median and standard deviation of the variables of the study. It tells us the uniqueness of the data set.

The Augmented Dickey-Fuller test was adopted to ascertain the order of stationarity of the time series and apply same in the ordinary least square estimation process. This was aimed at avoiding spurious results.

The cointegration technique was employed to ascertain the long run equilibrium relationships in the model.

The error correction technique was employed to ascertain the magnitude of insurance sector development on foreign direct investment in Nigeria. The estimation is done following the ordinary least square example, which is widely acclaimed as simple and lacking bias.

4. ECONOMETRIC RESULTS

4.1 Descriptive Statistics

This section presents the summary descriptive results of the variables of the study.

Table 1. Summary descriptive statistics results

	FDI	TAS	TIBI	TIP
Mean	0.229521	6.905333	6.647746	6.175813
Median	0.254955	5.559419	5.426350	4.930753
Maximum	0.494126	11.68697	11.50066	10.88305
Minimum	-0.197681	4.461422	4.092702	4.039080
Std. Dev.	0.185803	2.928367	3.007569	2.583976
Skewness	-0.617787	0.958280	0.936504	0.989960
Kurtosis	2.707346	2.011970	1.998093	2.127958
Jarque-Bera	1.477931	4.261955	4.135981	4.290496
Probability	0.477608	0.118721	0.126440	0.117039
Sum	5.049462	151.9173	146.2504	135.8679
Sum Sq. Dev.	0.724978	180.0820	189.9549	140.2156
Observations	22	22	22	22

The results indicate that the total number of observations is 22. This means that the observations are equal.
 The mean values of the data set of the variables are: FDI (0.229521), TAS (6.905333), TIBI (6.647746) and TIP (6.175813)

Table 2. Summary ADF unit root results

Variables	ADF statistics	Critical value @ 5%	Prob. values	Decision
FDI	-6.127219	-3.020686	0.0001	I(1)
TAS	-4.495409	-3.020686	0.0023	I(1)
TIBI	-4.568058	-3.020686	0.0020	I(1)
TIP	-4.914471	-3.020686	0.0009	I(1)

The ADF test results indicate that all the variables are integrated at their first differencing;
 This is expressed as I(1)

Table 3. Summary Johanson Cointegration test results

Date: 10/22/19 **Time:** 21:01
Sample (adjusted): 1998 2017
Included observations: 20 after adjustments
Trend assumption: Linear deterministic trend
Series: FDI TAS TIP TIBI
Lags interval (in first differences): 1 to 1
 Unrestricted Cointegration Rank Test (Trace)

Hypothesized	Trace		0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.884271	77.86711	47.85613	0.0000
At most 1 *	0.775214	34.73701	29.79707	0.0124
At most 2	0.210380	4.884899	15.49471	0.8209
At most 3	0.008009	0.160832	3.841466	0.6884

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level
 * denotes rejection of the hypothesis at the 0.05 level
 **MacKinnon-Haug-Michelis (1999) p-values
 Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized	Max-Eigen		0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.884271	43.13011	27.58434	0.0002
At most 1 *	0.775214	29.85211	21.13162	0.0023
At most 2	0.210380	4.724067	14.26460	0.7762
At most 3	0.008009	0.160832	3.841466	0.6884

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level
 * denotes rejection of the hypothesis at the 0.05 level
 **MacKinnon-Haug-Michelis (1999) p-values

The test results indicate that there are two cointegrating long run equilibrium relationship in the model of the study. This gives econometric credence to carry out the error correction process

The Jarque-Bera statistics specifies that none of the variables departed from normality, thus, the variables are considered to have a normal distribution. The descriptive analyses further indicate that, aside foreign direct investment (FDI), all the other variables are positively skewed.

The standard deviation captured the variability of distribution of the variables of the study. The descriptive statistics indicate as follows; FDI (0.185803), TAS (2.928367), TIBI (3.007569) and TIP (2.583976). Comparatively, the values of the standard deviation indicate that, the variables are noticeable dispersed below and around the mean and median values.

4.2 Augmented Dickey-Fuller Unit Root Test

Table 2 presents the summary ADF test results of the variables of the study.

4.3 Johanson Cointegration Test Results

Table 3 presents the Johanson cointegration test results of the variables of the study.

4.4 Error Correction Results

Table 4 presents the results of the error correction process estimated using the least square technique.

Table 3 shows the direction and magnitude of the least square results of the model.

The adjusted coefficient of determinant explained changes in foreign direct investment in Nigeria by approximately 55%. This means that 55% change in foreign direct investment in Nigeria is caused by the total asset base of insurance firms, total insurance business investment and the cumulative volume of insurance premium of insurance corporations in Nigeria. Furthermore, this implies that 45% of variability in the dependent variable was explained by factors not captured in the study. The indicator also suggests that the model is adequately fitted. This was further confirmed by the F-ratio, which indicates that the entire model is statistically significant. This was informed by the F-statistic value (7.002796), which has a probability value that is statistical zero.

The results further indicate that the error correction term absolved and corrected short run fluctuations not captured in the co-integration analysis at a quick adjustment speed of 96% in the current period. This implies that 96% of any disequilibrium between the short run shocks and long run equilibrium were corrected in the current period (that is, it took a certain ninety-six percent for all shocks to be corrected). This also validates the existence of a long run relationship between the variables. The negative sign of the coefficient of the error correct term further corroborate that the model is well fitted. Further observations indicate the absence of first order autocorrelation in the model, as indicated by the Durbin-Watson statistics.

Table 4. Least square estimates

Dependent Variable: FDI				
Method: Least Squares				
Date: 10/22/19 Time: 20:21				
Sample (adjusted): 1997 2017				
Included observations: 21 after adjustments				
Variable	Coefficient	Std. error	t-Statistic	Prob.
C	0.116161	0.117144	0.991602	0.3362
TAS	-0.149745	0.261971	-0.571608	0.5755
TIBI	0.293141	0.246518	1.189129	0.2517
TIP	-0.169297	0.074657	-2.267667	0.0376
EC	-0.962306	0.201845	-4.767547	0.0002
R-squared	0.636456	Mean dependent var		-0.022046
Adjusted R-squared	0.545570	S.D. dependent var		0.129784
S.E. of regression	0.087489	Akaike info criterion		-1.830339
Sum squared resid	0.122471	Schwarz criterion		-1.581643
Log likelihood	24.21856	Hannan-Quinn criter.		-1.776366
F-statistic	7.002796	Durbin-Watson stat		2.420444
Prob(F-statistic)	0.001859			

The individual explanatory variables suggest the following:

The coefficient of total asset size of the insurance sector (TAS) indicates that the variable is negative and statistically insignificant. This means that the variable exerts a negative and statistically insignificant impact on foreign direct investment inflow to Nigeria. This implies that the total asset base of the insurance industry is not adequate to mitigate the economic and political risk in developing countries and further attract external capital inflow in Nigeria. This does not closely follow economic theory and is contrary to the a priori expectation established earlier, which averred that increase in the asset base of the insurance sector attract foreign direct investment. The negative and statistical insignificant finding is not in line with the empirical findings of Okolo et al. [8].

The coefficient of total insurance business investment (TIBI) shows that the variable is positive and statistically insignificant. This implies that total insurance business investment exerts a positive and statistically insignificant impact on foreign direct investment inflow to Nigeria. This follows closely with a priori expectation of the study. Furthermore, the findings indicate the underdevelopment of the insurance sector in developing countries and by extension Nigeria. It is evident that insurance culture in countries like Nigeria is poor, thus reducing the rate of insurance product sales and invariably their premium pool. This by extension reduces investible funds available to them and tellingly the inability of the sector to attract external capital to meet the funding gap experienced in developing countries. The positive and statistically insignificant finding is not consistent with the findings of Okolo et al. [8].

The coefficient of total insurance premium (TIP) of the insurance industry reveal that indicate that the variable is negative and statistically significant. This means that total insurance premium of the insurance industry exerts a negative and statistically significant impact on foreign direct investment inflow to Nigeria. This indicates that the sector does not have the capacity to attract FDI to augment the domestic funding deficiency in Nigeria. The negative and statistical significant finding is not consistent with the empirical findings of Okolo et al. [8].

5. DISCUSSION OF FINDINGS

The evaluation of the slope of the coefficients of the explanatory variables (total asset size)

indicated the existence of negative and statistically insignificant relationship between foreign direct investments in Nigeria. The relationship between total Insurance business investments is found to be positive.

Generally, our model suggests a significant relationship between total insurance business investment and foreign direct investment inflow using the f-statistics. The adjusted coefficient of determinant explained changes in foreign direct investment in Nigeria by approximately 55%. This means that 55% change in foreign direct investment in Nigeria is caused by the total asset base of insurance firms, total insurance business investment and the cumulative volume of insurance premium of insurance corporations in Nigeria. Furthermore, this implies that 45% of variability in the dependent variable was explained by factors not captured in the study.

The positive and statistically insignificant finding is not consistent with the empirical findings of Okolo et al. [8]. Unlike most of the existing studies, foreign direct investment is statistically significant on economic growth in Nigeria. It is also in line with the findings of Taiwo, Achugamonu, Okoye and Agwu [12].

6. CONCLUSION

The study investigated the impact of insurance sector development on foreign direct investment inflow in Nigeria. The objective of the study was to specifically ascertain the impact of total asset size of the insurance sector, total insurance business investment and total insurance premium of the insurance companies on foreign direct investment in Nigeria. Secondary data spanning 1996 to 2017 was collated and estimated using the least square technique. The results indicates that; the total asset size of the insurance sector (TAS) exerts a negative and statistically insignificant impact on foreign direct investment inflow to Nigeria, total insurance business investment (TIBI) exerts a positive and statistically insignificant impact on foreign direct investment inflow to Nigeria and finally, total insurance premium (TIP) exerts a negative and statistically significant impact on foreign direct investment inflow to Nigeria. On this premise, the study concludes that insurance sector development does not attract foreign investment inflow to Nigeria. The study suggests that the insurance sector should be revamped in order to absorb risk and uncertainty and be a vehicle for risk transfer and minimization. A policy of

restructuring would help instil public confidence, boost insurance policy sales, increase insurance premium and invariably increase the availability of investible funds to boost economic activity. The study suggests that these would help attract foreign direct investment to meet domestic funding needs of Nigeria.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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