

Effect of Insecurity on Foreign Direct Investment in Nigeria (2010-2020)

Kolade Akinpelu Ayobami, Ochei Ngozi Fidelia, Ochei Ngozi Fidelia

Kolade Akinpelu Ayobami. Department of Business Administration and Management Osun State College of Technology, Esa- Oke
akinpelu06@yahoo.com +2348034647211

Olaleye Olumide Olalekan. Department of Business Administration and Management. Osun State College of Technology, Esa-
Oke Osun State +2348064986976 mide.olalekan@gmail.com

Ochei Ngozi Fidelia. Department of Business Administration and Management. Federal Polytechnic Ile Oluji Ondo State.
ngnew241@gmail.com
+2349068719312

Corresponding Author: Kolade Akinpelu Ayobami. +2348034647211

Abstract: The paper examined the impact of terrorism on Nigeria's economy with a focus on foreign direct investment from the period of 2010 – 2020. Secondary data was obtained from the Global Terrorism Database (GTD), Central Bank of Nigeria Statistical Bulletin (2020), and Knoema (2021). The empirical model for the study was developed with the theoretical framework of game theory while Ordinary Least Square (OLS) estimation was used to analyze the study at a 5% level of significance. The probability value of F-statistics (0.041) revealed that the second-order polynomial regression model estimated for the study is statistically significant. The study concludes that the highest significant negative impact of terrorism on Nigeria's economy was produced by the current state of transnational terrorism mostly by terrorist organizations such as Boko Haram and ISWAP. It, therefore, recommends that there is a need for a collaborative effort from all relevant stakeholders involved in the security both at local and national levels to curtail and eradicate if possible the current state of transnational terrorism to alleviate the fear of foreigners when coming to invest in Nigeria.

Keywords: Insecurity, Investment, Foreign, Direct and Terrorism

1. Introduction

Nigeria as a sovereign nation can be described as a peaceful nation where all ethnicities and group of people stays, do their businesses, and practice their religion without any fear of intimidation. Most times, nations do encounter serious threats in the areas of security that tends to disturb the life and properties of the citizen. In the mid-70s, the security issues of Nigeria have been moderately steady where individuals could move openly initially from one part of the nation to another without any attack. (Jelilov, Ozden & Brigs, 2018)

Presently, Nigeria ranks 146th out of 163 countries and 8th least peaceful in Africa according to the measurement of the Institute for Economics and Peace (IEP), countries are assessed in three domains which include the level of societal safety and security, the extent of ongoing domestic and international conflict and the degree of militarization (Guardian Newspaper, June 2021). With this level of assessment, it was reported that Nigeria continues to face challenges in both safety and security and ongoing domain. The statistics show that Boko Haram and government forces in the Northeast alone have led to over 1,606 people being killed in 125 fatal incidents in the year 2020 alone which amounted to 13 deaths per violent event in the insurgency without counting the losses on kidnapping, banditry and Fulani herdsmen violent acts. Civil unrest in sub-Saharan Africa rose by more than 800 percent over the period with Nigeria accounting for the highest number of demonstrations and most increase in civil unrest. (Udoh, 2021)

When the nation is experiencing insecurity and civil unrest, business activities of both local and foreign will not be smooth and this can also lead to the total collapse of the economy. Also, the price of crude will reduce drastically which has been the major source of income for the Nigerian economy after the neglect of agriculture during the oil boom; exchange rate will be affected as well. Any breach of the peace will be a breach of business activities. On this note, this study is expected to critically examine the effect that insecurity will have on foreign investment, especially in Nigeria.

There are several studies on the issue but this study is expected to focus on the effect of transnational and domestic insecurity and the impact on the Gross Domestic Product of a nation between the periods of 2010 to 2020. Foreign Direct Investment is a key macroeconomic variable through which the impact of terrorism can be evaluated.

2. Literature Review

Insecurity

Insecurity can be defined according to Merriam-webster.com (2021) as the quality or state of being insured, feeling of anxiety, and lack of dependability or lack of a reliable means of meeting one's basic needs. Insecurity is also a state of instability and continually of livelihood unpredictable living, feelings, and safety in society. State of danger that is considered unfit, unsafe, and not conducive for productive activity to take place or when there is an absence of peace, tranquility, or harmony (oluwatayo & Ayodeji 2019). It

can also be a situation where life is being threatened and open to hazards and tension. In Nigeria insecurity is perpetrated by the activities of Fulani Herdsmen, Boko- Haram Insurgencies, Armed Robber attacks, kidnapping, Indigenous of Biafra, Niger Delta Militants, Child Trafficking and abductions, drug trafficking, oil bunkering, political and religious crises, serial ritual killings. All these have destroyed lives and properties, burning churches and mosques, police stations, clinics, army barracks, bringing down air forces jet fighters, abductions of expatriates, and residential houses.

According to the findings of Ndubisi and Theresa (2019) opined that insecurity in Nigeria has led to the destruction of lives, properties, and types of equipment, relocation and closing down of businesses and this has made the government divert resources meant for development purposes to security. Due to the activities of insecurity especially in Nigeria, expatriates consider Nigeria as a place of abode that is not safe for their investment, therefore, making them not commit their hard resources to investment. Many factors have been attributed to insecurity in Nigeria by many authors this include unemployment, leadership/power tussle, ethnic-religious conflicts, porous borders, weak security system among others. (Adagba, 2012; Adeola & Oluyemi, 2012; Nwagboso, 2013; Ndubisi & Theresa, 2019)

Concept of Foreign Direct Investment

Foreign Direct Investment can be described as an investment and construction of facilities or investment in a joint venture with a local firm by a foreign firm. It can also be a direct investment which is into production or business in a country by an individual or company of another country, this can be through the acquisition of a company in the target country or by expanding the existing operation of such business in that country. (Adeleke, Olowe & Fasesin, 2014; Obiekwe & Onyebuchi, 2018). Foreign direct investors before it can be fully utilized such investor can acquire voting power of an enterprise in an economy through the incorporation of the wholly owned subsidiary or company in the country, and acquisition of shares in an associated enterprise through merger and acquisition. Foreign Direct Investment (FDI) plays a major role in the economy as identified by Ayoola (2018) this makes the development of emerging markets because it provides capital to finance domestic projects as well as expertise to undertake such projects. FDI can be the horizontal, platform, or vertical. the relationship offers to ascend to multinational enterprises, and for an investment to be viewed as an FDI, the parent firm needs no less than 10 percent of the normal offers of its foreign members. FDI is an investment that acquires the enthusiasm for big business which works outside the residential region of the speculator

Terrorism

Austin Homeland Security in Texas described terrorism as the lawful use of force or violence against persons or property to intimidate or coerce a government or its citizens to further certain political or social objectives. There are two types of terrorism this includes domestic and international.

Domestic terrorism is the type of terrorism executed by their citizens without foreign interference or direction while International terrorism is the one that is connected with foreign government or groups which transcends over nation's boundaries (David & Ugochukwu, 2016)

Domestic terrorism is a form of terrorism that can also be referred to as homegrown terrorism in which victims within a country are the main target by the perpetrator with the same citizenship as their victims (Wikipedia, 2022)

Transnational Terrorism is described as a threat of violence by non-state actors to influence citizens or governments in the pursuit of political or social change. It does not occur domestically in a country and threatens entire regions or multiple countries. Such groups of terrorists are ISIS, ISWAP, and AlQueade. The major objective of transnational terrorism is to target global ideals, such as capitalism, democracy, or Christianity and targets among countries. According to the history, transnational terrorism has existed for over a hundred years, and was one of the leading cause of World War I. Transnational terrorists have no regard for loss of life including their own (United Nations, 2017).

Empirical Review

A study conducted by Obiekwe and Onyebuchi (2018) on the impact of the insurgency on foreign direct investment in Nigeria discovered that FDI serves as a vital engine block of growth within the sphere of economic that greatly transformed the industries and also serves as external resources generation for most of developing countries. They conclude that insurgency is a threat to Nigeria's economic development and growth. The insurgency was caused by so many factors which include corruption and leadership misrule, economic marginalization, high level of unemployment, poverty, and environmental degradation. They recommend that the government should match words with actions in dealing with security challenges in the country by equipping and training the security agencies properly to meet up the challenges.

The rising wave of insecurity has not subsided but has assumed an unsafe facet that is threatening the communal existence of the country as one geographical entity. The paper examined the effect of insecurity on investment with emphasis on Nigeria's economy from 2007 to 2017. It was discovered that terrorist activities have a significant effect on the growth of the economy with a t-value of

3.770935 and a p-value of 0.006974396. High levels of unemployment and poverty constitute an increase in crime. They, therefore, appeal to the government to put in place managerial resources and infrastructure with democratic accountability which can give the investors an enabling environment for investment that will boost the economy. (Gylych, Kemal and Sotonye, 2018)

Ayoola (2022) examined the nature and trend of insecurity and the pattern of foreign direct investment (FDI) in Nigeria from 1999 to 2014. Both secondary and primary data were employed. The study adopted the theoretical framework of liberal transnationalism from a political economy perspective. The data were analyzed using qualitative as descriptive methods and it was revealed that the nature and trend of insecurity negatively impacted the patterns of FDI in Nigeria, especially both in the oil and non-oil sector within the period understudied.

3. Methodology

Method of Data Analysis

In this study, an ex-post-facto design is adopted. The design, ex post facto, allows a researcher to infer the effect or causal effect of an independent variable on an outcome (or dependent) variable which had already occurred before a research study (Saka, 2021; Saka & Fatogun, 2021; Wooldridge, 2001). In this manner, the researchers attempt to evaluate the impact of terrorism on the Nigerian economy with a focus on foreign direct investment and real per capita gross domestic product which had occurred before the conduct of the current research. Consequently, secondary data which reported the incidence of terrorism incidence (domestic and transnational terrorism), foreign direct investment, real per capita GDP, and control variables such as exchange rate and oil price were obtained from the Central Bank of Nigeria Statistical Bulletin (2020), Global Terrorism Database (GTD) and Knoema (2021). The empirical model of this study is developed within the theoretical framework of game theory. In game theory, two or more rational decision makers who are viewed as players strive to achieve maximum gains at the expense of other players through strategic interactions. The rationality tenet of the theory explains why the players in the game seek for pay-offs as the outcome of the game; hence, justifies its application in social science. The principles in game theory provide better understanding for rationale face-off between terrorist groups and governments as governments depending on size and capabilities of economy often incur heavy security expenditure to limit the impact of terrorism. In contrast, terrorist groups usually seek for economic disruption as a strategic tool to bring down governments. Thus, achieving economic disruption is a maximum gain to the terrorist groups (like Boko Haram and ISWAP in Nigeria) while such is a maximum loss to the government (for instance, Federal Republic of Nigeria).

Research Model

Following the application of game theory, the study simultaneous polynomial model is developed as:

$$\text{Nigeria Economy} = f(\text{Terrorism}) \dots (1)$$

The equation (1) depicts the functional relationship between the incidence of terrorism and the Nigerian economy. The incidence of terrorism is classified into two transnational terrorism and domestic terrorism. According to Sandler and Enders (2012), it is imperative to include all forms of terrorism in a country-specific analysis, particularly for a country that is plagued with both transnational and domestic terrorism such as Nigeria. In this study, the activities of ISWAP and IS-led Boko Haram in Nigeria can be regarded as transnational terrorism while internally-controlled Boko Haram is designated as domestic terrorism. Thereby, equation (1) is expanded into (2) as;

$$\text{Nigeria Economy} = f(\text{Transnational terrorism and Domestic terrorism}) \dots (2)$$

From equation 2, the Nigerian economy is measured with Foreign Direct Investment (FDI) as a key macroeconomic variable through which the impact of terrorism can be evaluated. In other words, equation 2 is re-formulated into equation (3) as;

$$FDI = (\text{Transnational terrorism and Domestic terrorism}) \dots (3)$$

Equation (3) is explicitly stated in second-order polynomial form as;

$$FDI_t = \alpha + \beta_1 TRT_t + \beta_2 DOT_t + \beta_3 TRT_t^2 + \beta_4 DOT_t^2 + \varepsilon_t \dots (4)$$

Where; α = intercept values; FDI = Foreign Direct Investment; TRT = Transnational terrorism; DOT = Domestic terrorism; $\beta_1 - \beta_4$ are coefficients of predictors; ε = error terms; t = time period (in years).

The estimation of terrorism impact using polynomial regression is informed by the need to assess both current and future implications of terrorism on Nigeria's economy.

Sources of Data

The data on variables of interest were obtained from the Central Bank of Nigeria Statistical Bulletin (2020), Global Terrorism Database (GTD), Knoema (2021), and This Day (2021). The study is a time series analysis considering a period of 2010 to 2020. The study was limited to 2019 because 2020 data had not been properly updated due to the outbreak pandemic of the coronavirus. The study area covered the entire 36 states and Federal Capital Territory. According to a reliable estimate from GTD (2021), the terrorism issue started in Nigeria in 2010. Ordinary Least Square (OLS) estimation is employed to analyze the study's multiple quadratic equations in (4) at a 5% level of significance.

4. Presentation of Results

This sub-section presents the outcomes of descriptive analysis and second-order polynomial regression analysis in Table 1 and Table 2 respectively.

Table 1: Descriptive Results

	FDI	PCG	TRT	DOT	TRT ²	DOT ²	TRTDOT
Mean	4.42E+09	2464.300	8.252000	526.8000	68.94122	390676.6	4302.33
Median	4.07E+09	2384.000	8.455000	429.0000	71.50805	193066.0	3440.02
Maximum	8.84E+09	3099.000	9.310000	1158.000	86.67610	1340964.	9958.80
Minimum	7.75E+08	1969.000	6.310000	108.0000	39.81610	11664.00	973.080
Std. Dev.	2.47E+09	390.9831	0.969373	354.5864	15.22678	455826.7	2918.88
Skewness	0.319812	0.313328	-0.893211	0.598289	-0.726848	1.115180	0.67095
Kurtosis	2.162796	1.786428	2.736435	2.046212	2.500894	2.871042	2.30343
Jarque-Bera	0.462513	0.777272	1.358656	0.975630	0.984308	2.079640	0.95248
Probability	0.793536	0.677981	0.506958	0.613967	0.611308	0.353518	0.62111
Sum	4.42E+10	24643.00	82.52000	5268.000	689.4122	3906766.	43023.3
Sum Sq. Dev.	5.51E+19	1375810.	8.457160	1131584.	2086.695	1.87E+12	7667892
Observations	10	10	10	10	10	10	10

Source: E-VIEWS 7 Outputs, 2021

Table 2: Regression Estimation of Terrorism Impacts in Nigeria

Dependent Variable: FDI Method: Least Squares Date: 11/28/21 Time: 00:17 Sample: 2010 2020 Included observations: 10				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	43.02160	10.93190	3.935417	0.0110
TRT	-4.937090	2.764620	-1.785811	0.0342
DOT	0.001890	0.001819	1.039212	0.3463
TRT ²	0.286836	0.175442	1.634936	0.1630
DOT ²	-2.63E-06	1.38E-06	-1.902871	0.0154
R-squared	0.821160	Mean dependent var		22.02447
Adjusted R-squared	0.678088	S.D. dependent var		0.709250
S.E. of regression	0.402409	Akaike info criterion		1.324158
Sum squared resid	0.809665	Schwarz criterion		1.475450
Log likelihood	-1.620789	Hannan-Quinn criter.		1.158190
F-statistic	5.739496	Durbin-Watson stat		1.212642
Prob(F-statistic)	0.041293			

Interpretation and Discussion of Results

The information in Table 1 describes the statistical features of the data employed over 10 observations from 2010 to 2020. The data specifically focuses on Nigeria's economic performance in terms of Foreign Direct Investment (FDI) and Per Capital Growth (PCG) and the incidence of terrorism in the country consisting of transnational (TRT) and domestic terrorism (DOT). The descriptive estimates considered in this study are mean values, maximum and minimum values, and probability values of the normal distribution test, Jarque-Bera. The mean value of FDI over the period is ₦4.42 trillion with a maximum value of ₦8.84 trillion and a minimum value of ₦775 billion. The outcome implies that, on average, the amount of FDI in Nigeria between 2010 and 2020 is ₦4.42 trillion with the highest amount generated within the period being ₦8.84 trillion and the lowest amount as ₦775 billion. The probability value of Jarque Bera statistics which shows an acceptance of the null hypothesis indicates that data on FDI is normally distributed with a value of 0.7935.

On variable PCG, the mean value was obtained to be \$2464.30 per Nigerian national. This result further confirms Nigeria's income class as a lower-middle income country. The highest PCG Nigeria recorded for the period is \$3,099 which is still within the range provided by World Bank (2021) for lower-middle income countries. The country recorded \$1,969 as the lowest value of PCG for the period. Similarly, the probability value of normal distribution illustrates that PCG data is normally distributed. For predictors, the average figure of the TRT index is 8.23. This result indicates the high level of transnational terrorism in the country as the countries are rated on an index scale between 0 – 10 (Global Terrorism Index, 2021). The lower the terrorism indexes for a country, the lower the incidence of transnational terrorism in such a country. In one of the years under consideration, Nigeria recorded a very high terrorism index of 9.51 which significantly move the country to the rank of the two most terrorized countries in the world along with Afghanistan. Even the lowest terrorism index recorded, 6.31, still reinforces the evidence of the high level of transnational terrorism in Nigeria.

Further, the descriptive results on domestic terrorism (DOT) illuminate that internal conflict is on the rise in Nigeria. For instance, the average number of violent attacks in Nigeria for the period under review is 526 which claimed a large number of human lives. More regrettably, the country recorded 1158 attacks in one of the years under review resulting in an increased number of deaths and properties (productive property inclusive). The minimum number of domestic attacks (a proxy for domestic terrorism) between 2010 and 2019 is 108. Both data on transnational and domestic terrorism are found to be normally distributed as implied by the probability values of Jarque Bera statistics which are 0.5069 and 0.6139 respectively. The outcome of descriptive statistics provides the impetus for advanced inferential statistics as all the series data display normal distribution properties, a very important condition for Ordinary Least Square (OLS) regression as a method of parametric technique. Consequently, the researchers proceed to inferential analysis through polynomial regression.

The information in Table 2 consists of a second-order polynomial regression estimation of terrorism impacts on foreign direct investment in Nigeria. In the main, the probability value of F-statistics (0.041) as revealed in Table 2 reveals that the second-order polynomial regression model estimated for the study is statistically significant. This implies that the study data significantly fits the terrorism model specified.

5. Conclusion

From the results, it is indicated that the current issue of transnational terrorism (*TRT*) and the persistence of domestic terrorism in the future (*DOT2*) significantly reduce the level of foreign direct investment in Nigeria. For instance, one more case of transnational terrorism in the current period and the persistence of domestic terrorism in the future will significantly lead to a fall in foreigners' participation in the Nigerian economy by -4.937% and -.000002% respectively. On the other hand, the results further show that the current state of domestic terrorism (*DOT*) and the future state of transnational terrorism (*TRT2*) in Nigeria produce a positive impact on foreign investment in the country. This is reflected with evidence that one more incidence of the current state of domestic terrorism (*DOT*) and future state of transnational terrorism (*TRT2*) in Nigeria produces an increase in FDI in the country by 0.00189% and 0.2868% respectively. However, the positive effects of the current state of domestic terrorism and the future state of transnational terrorism in Nigeria are statistically insignificant to affect foreign direct investment in the country. Furthermore, the results obtained through the polynomial regression in this study help to identify the potential impacts that the incidence of terrorism (domestic and transnational) exert on the Nigerian economy via foreign direct investment in both current and future periods. In terms of figures, the highest significant negative impact of terrorism on Nigeria's economy is produced by the current state of transnational terrorism mostly by terrorist organizations such as Boko Haram and ISWAP. Although there exist significant negative effect of domestic violence and terrorism on Nigeria's economy in the long run such effect is negligible.

6. Recommendations

There is a need for a collaborative effort from all relevant stakeholders involved in the security both at local and national levels to curtail and eradicate if possible the current state of transnational terrorism to alleviate the fear of foreigners when coming to invest in Nigeria.

7. References

- Adeleke, K. M, Olowe, S. O. & Fasesis, O. O. (2014). Impact of foreign direct investment on Nigeria economic growth. *International Journal of Academic Research in Business and Social Sciences*, 5 (8), 234- 242S
- Adeola, G. L., & Oluyemi, F. (2012). The political and security implications of cross border Migration between Nigeria and her francophone neighbours. *International Journal of Social Science Tomorrow*, 1(3), 1-9.
- Adagba, O., Ugwu, S. C. and Eme, O. I. (2012). Activities of Boko Haram and Insecurity Question in Nigeria, *Arabian Journal of Business and Management Review*, 1(9), 77-99.
- Ayoola, A.O. (2018). Insecurity and Major Determinants of Foreign Direct Investment in Nigeria. *International Journal of Humanities and Social Science Research* 4(18)
- Balogun, I. & Sessou, E. (2012). As Boko Haram's attack increases, death toll rises. Retrieved February 20, 2022, Vanguard Online News Publication
- David, I., & Ugochukwu, U. (2016). The Spectre of Terrorism and Nigeria's Industrial Development: a Multi-Stakeholder Imperative. *African Journal of Criminology and Justice Studies*. 9. (20)
- Jelilov, G., Ozden, K., & Briggs, S.O. (2018). Impact of Insecurity on Investment in Nigeria. *Journal of Management, Economics, and Industrial Organization*
- Nwagboso, C.I. (2012). Security Challenges and Economy of the Nigerian State (2007 – 2011), *American International Journal of Contemporary Research*, 2(6), 244-.258
- Udoh, E. (2015). Insecurity in Nigeria: Political Religious and Cultural Implications. *Journal of Philosophy, Culture and Religion* 5(15)
- Ndubuisi-O., & Theresa. A. (2019) "Insecurity in Nigeria: the Implications for Industrialization and Sustainable Development " *International Journal of Research in Business Studies and Management*“, 6(4) 7-16.
- Oluwatayo, I., & Ayodeji, O. (2019). Effect of Access to ICT on Food Insecurity Among Farming Households in Nigeria. *The Journal of Developing Areas*. 53. 155-168. 10.1353/jda.2019.0027.
- Obiekwe, O., (2018). Impact of Insurgency on Foreign Direct Investment in Nigeria *International Journal of Operational Research in Management, Social Science & Education* ISSN Online 2536-653X 4(1)