Investigating the Effects of Foreign Direct Investments and Remittances on Economic Growth in Nigeria: A Vector Autoregressive (Var) Approach

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***Abstract*—In an attempt to ensure greater participation in the global economy, developing countries have increasingly liberalized, privatized and deregulated their economies since the mid-1980s. More welcoming policies to attract foreign capital inflows have been a prominent component of this trend. In this study, an attempt is made to analyze the impact of foreign direct investment and remittances inflow on economic growth of Nigeria in a quest to find a reasonable answer to the question of whether FDI and remittances inflows constitute vital sources of economic growth to Nigeria.**

The study employed the Vector Autoregressive (VAR) approach. It was established that foreign direct investment has a positive but non-significant impact on Nigeria's economic growth. However, it is evident from the outcome of the study that the remittances inflow has a negative though non-significant impact on Nigeria economic growth.

The policy implication of this study is that government should build an investment-friendly environment free of insecurity and corruption, reduce the cost of doing business and put in place the mechanism to attract more capital inflows to boost domestic production. By doing this, Foreign investors will have confidence in Nigeria economy and commit more funds in form of Foreign Direct Investment in Nigeria which will enhance domestic production. Remittances inflow can then be channeled to consumption of these domestic goods and services rather than on imported goods. This will increase aggregate demand and ultimately affect output and growth in Nigeria.

***Index Terms*—Capital inflows, foreign direct investment, remittances, capital formation, economic growth, vector autoregressive (VAR).**

I. Introduction

It has long been argued by neo-classical economists that capital is the main engine of growth, placing emphasis on capital accumulation (Frankel, 1962) [1]. The development economists opined that capital is essential for growth and its origin does not matter. Based on these views, capital-deficient countries especially developing countries which are faced with resource gap constraint have resorted to foreign capital to supplement domestic savings in order to bridge the gap between domestic savings and domestic investment (Koopmans, 1965 [2]; Romer, 1986 [3]; Bacha, 1990 [4]; Jappelli and Pagano,1994 [5]; Deaton, Angus and Paxson, 2000 [6]). External funds could take diverse forms, such as Foreign Direct Investment (FDI), Remittances, Official Development Assistance (ODA), Foreign Portfolio Investment (FPI), External Debt, and Equity Flows.

In an attempt to ensure greater participation in the global economy, developing countries have increasingly liberalized, privatized and deregulated their economies since middle 1980s. More welcoming policies on foreign capital have been a prominent component of this trend. With the current shift to greater global integration, emphasis is now placed on the need for countries, especially the less-developed economies, to attract more capital flows into their economies.

It is commonly believed that longer term inflows such as Foreign Direct Investment, Official Development Assistance (popularly known as foreign aid) or sovereign debts have some positive impacts on the receiving economy (Lipsey, 2004 [7], and Levchenko and Mauro, 2007 [8]; César Calderón and Ha Nguyen, 2015 [9]). Theory suggests that this can be the case, because long-term capital inflows help countries mitigate their capital constraints, and provide capital for investment. It could also bring foreign know-how and technologies, and encourage better governance at the same time support human capital development. In addition, long term capital inflows insulate countries from the inherent volatility associated with the short term capital flows.

According to Nyong (2002) [10], different schools of thought have defined the relationships between foreign capital inflows and economic growth. One such is the **complementary hypothesis school**, which postulates that foreign capital inflow is beneficial to economies of less developed countries (LDC's). The derives from foreign inflows complementing the low savings of these countries, increasing the pool of financial resources available for productive investments and promoting a rapid transfer of technology to the less developed countries. The second school of thought is the **substitution hypothesis school**, which claims that foreign capital inflows act to relax the savings efforts of developing countries and render them susceptible to perpetual domination and subjugation by the economically advanced economies of the north mainly the economies of the United States of America, Britain, France and Germany. A third school of thought argues that foreign capital inflow has both benefits and costs and that its impact is determined by the host economy's specific conditions in general and the policy environment in particular in terms of the host economy's ability to diversify and its level of absorptive capacity (Adams, 2009) [11].

Empirically however, the mutual impacts between capital

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flows and growth are less clear. Non-conclusive resolution of the real impact of these capital flows – FDI, Remittances, Foreign Portfolio Investment, Foreign Loans etc. on recipient countries has at times thrown some of the countries in dilemma. In Nigeria for instance, some successive governments have pursued certain policies that tended to discourage the inflows of international capital into Nigeria at one point, while at another their economic and political policies have encouraged increased inflows of these foreign capital. This policy inconsistency has contributed to robbing Nigeria of sustainable economic growth and development that could have accrued to her as a result of the availability of these foreign capitals in her economy.

The objective of this study is to examine the impacts of foreign direct investment and remittances on economic growth in Nigeria during the period 1986-2016 using vector autoregressive model (VAR) approach. The choice of the base period is to capture the period associated with economic liberalization and financial integration policies in Nigeria. The paper is structured into five sections. The first section is the introduction; the second part is the review of related literature. The third part features the methodology used for the study while the fourth section is the presentation and discussion of results. The fifth section is the conclusion.

II. Review of Literature

There are many studies in economic literature on the relationship between capital flows and economic growth, but there is no consensus as regards the existence and direction of the relationship between these variables. For instance, remittances-growth nexus has been tested extensively in the literature and the results of the studies are significantly conflicting in the sense that some studies find adverse connection, some demonstrated positive relationship while others show no relationship between inward remittances and economic growth (Pradhan *et al.* 2008[12]; Chami *et al.* 2009[13]; Giuliano and Ruiz-Arranz, 2009[14]; Orrenius *et al.* 2009[15]). One of the empirical studies was carried out by Meyer Dietmar and Adela Shera (2016)[16] who analyzed the impact of remittances on economic growth using panel data set of six high remittances receiving countries, Albania, Bulgaria, Macedonia, Romania, Bosnia and Herzegovia during the period 1999 to 2013. The research findings suggest that remittances have a positive impact on growth and this impact increases at higher levels of remittances relative to GDP.

As far as the impact of FDI on economic growth is concerned, Almfrsji and Almsafir (2014) [17] reviewed extensive amount of literature on the relationship between FDI and economic growth for the period of 1994 to 2012. Their main findings show that the impact of FDI on economic growth is significantly positive, but in some cases it is null or even negative. Though, some earlier studies on FDI-economic growth nexus propounded that FDI enhances economic growth in the course of its externality and spillover, and FDI is a crucial external factor for long term sustainable growth (Easterly, King, Levine, & Rebelo, 1994 [18]; Grossman & Helpman, 1991 [19]; Lucas, 1988 [20]; Solow, 1956 [21]; Swan, 1956 [22]). The externality and spillover impact involves capital transfer, better and new technology, employment creation, further increases in research and development, and domestic human capital development.

Lipton (1980) [23], Ahlburg (1991) [24] and Brown and Ahlburg (1991) [25] argued that remittances undermine productivity and growth in low-income countries because they are readily spent on consumer-imports than on productive investments. However, Barajas *et al.* (2009) [26] investigated the relationship between remittances and economic growth for a sample of 84 recipient countries for the period 1970-2004. The study carried out a panel growth estimation regression for the full sample and for emerging economies. This study found that remittances have no impact on economic growth. Siddique *et al.* (2010) [27] investigated the relationship between remittances and economic growth for Bangladesh, India and Sri Lanka, for the period 1975 to 2006 using Granger Causality test under the Vector Auto Regression (VAR) framework. They found that there was no causal relationship between economic growth and remittances in India, that there was a two-way relationship between remittances and economic growth in Sri Lanka, and that remittances did not lead to economic growth in Bangladesh.

In Nigeria, Agu (2009) [28] used a four-sector medium scale macro model to study the relationship between remittances flows and the macro economy in Nigeria. The study revealed a weak link between remittances and the real sector and components of aggregate demand. He pointed out that the existence of leakages of remittances proceeds through imports could be responsible for the weak nexus. Olubiyi (2009) [29] in his study found that workers "remittances have a positive effect on demand deposit, liquidity and Deposit Money Bank (DMB) credit and loan in Nigeria. Udah (2011) [30] showed that remittances affect economic performance in Nigeria through its interaction with human capital and technology diffusion. In addition, he argued that government capital expenditure on economic and social services is equally important in accelerating the pace of economic growth and development. Ukeje and Obiechina (2010) [31] investigated the empirical impact of the workers' remittances on economic growth in Nigeria. Using a time series data, from 1970-2010 in an error correction methodology (ECM). The long-run static model indicates that workers' remittances is significant and has positive impacts on economic growth. Furthermore, the short-run dynamic model revealed that the lagged value of workers' remittances is significant and impacts positively on economic growth.

Akinlo (2004) [32] investigated the impact of FDI on economic growth in Nigeria for the period (1970-2001). His research output indicated that foreign capital has a small and not statistically significant effect on economic growth in Nigeria. This position was corroborated in a similar study by Ajide & Adeniyi (2010) [33]. A similar study by Badeji and Abayomi (2011) [34], revealed a negative relationship between FDI inflow and economic growth in Nigeria. Ilomona (2010) [35] in his study, found a positive relationship between FDI and economic growth in Nigeria,

though not satisfactorily significant. Adegbite and Ayadi (2011) [36] have investigated the impact of FDI flows on economic growth in Nigeria. Their study found that FDI had a beneficial impact on the economic growth. However, they also report that the extent to which FDI influences the economic growth positively could be limited by human capital. Akpan and Eweke (2017) [37] assess the Long-Run Implication Foreign Direct Investment and Industrial Sector Performance on Economic Growth in Nigeria using the Impulse Response Functions (IRFs), Variance Decomposition (VDC) and Johansen Cointegration test techniques. Their study from VAR estimate found that FDI had a slight significant positive impact on GDP, while Industrial Sector Output had a small significant positive impact on GDP at present, with a negative relationship observed at previous periods.

The foregoing literature suggests that the relationship between foreign capital inflows and economic growth is inconclusive. This, therefore, has induced this study to examine the impact of FDI and remittances on economic growth in Nigeria. Also, the literature reviewed either looked at FDI and Growth, or Remittances and Growth, there seems to be none combining both FDI and Remittances together and look at their impact on growth. This study is unique and path-breaking since it combined both FDI and Remittances together and looks at their impact on growth.

III. Methodology

A. Research Design

This study employs ex post facto research design to ascertain the effect of foreign direct investment and remittances on economic growth in Nigeria. The following sections describe the sampling, statistical, and operational designs employed in this study.

B. Sources of Data

The study employed the use of secondary data that were mainly sourced from World Development Indicator a publication of the World Bank and the Central Bank of Nigeria's (CBN) Statistical Bulletin of 2016. The periodicity of data for this study is annual time series data with twelve calendar months. Seasonal adjustment of high frequency annual time series poses several challenges. One is the detection of outliers that, if they are not exhibited and imputed, could hamper the proper estimation of the seasonal component.

The scope of the study covers the period between 1986 and 2016, the choice of the base period is to capture the period associated with economic liberalization and financial integration policies in Nigeria. The variables for this study are growth rate of real GDP (endogenous variable), Remittances as a percentage of GDP, and FDI as a percentage of GDP (exogenous variables). Other control variables included are Gross Fixed Capital Formation, Government Expenditure, Domestic Savings, Exchange Rate, Inflation Rate and Financial development. Brief descriptions and sources of these variables are giving below.

1) Variable description

The brief descriptions and sources of variables

Real Gross Domestic (GDPg): This variable measures economic growth in Nigeria over the period under observation. It was sourced from the World Bank via World Development Indicators

Foreign Direct (FDI): FDI are the net inflows of investment to acquire a lasting management interest in an enterprise operating in an economy other than that of the investor. Data on FDI was sourced from the World Bank via World Development Indicators.

Remittances inflow as a percentage of GDP: Personal remittances are defined as current and capital transfers in cash or in kind between resident households and non-resident households, and "take-home" compensation of employees earned by persons working in economies where they are not resident. Total Remittances include "Personal Remittances" and social benefits. Intuitively, it includes all household income obtained from working abroad. (United Nations Technical Sub-Group). Data on FDI was sourced from the World Bank via World Development Indicators.

Control Variables: Some macroeconomic variables that have been shown to be predictors of economic growth by extant literature are used as control variables in this study. These include: Gross Fixed Capital Formation (GFCF), Government Expenditure (GEXP), Domestic Savings (DSAV), Exchange Rate (EXCR), Inflation Rate (INFR) and Financial Development (FINDEV) measured by credit to private sector divided by Gross Domestic Product.

2) Model speciation

The VAR models that establish the interaction of the variables of this study are expressed as follows:

$$GDPg_t = \alpha_1 + \sum_{j=1}^{n} \lambda_j\, GDPg_{t-j} + \sum_{j=1}^{n} \beta_j\, FDI_{t-j} + \sum_{j=1}^{n} \theta_j\, REMT_{t-j} + \sum_{j=1}^{n} \phi_j\, GFCFg_{t-j} + \sum_{j=1}^{n} \pi_j\, GEXP_{t-j} + \sum_{j=1}^{n} \Omega_j\, DSAV_{t-j} + \sum_{j=1}^{n} \dot{\eta}_j\, EXCR_{t-j} + \sum_{j=1}^{n} \sigma_j\, INFR_{t-j} + \sum_{j=1}^{n} ¢\, FINDEV_{t-j} + \mu_{1t} \quad (1)$$

$$FINDEV_t = \alpha_9 + \sum_{j=1}^{n} ¢\, FINDEV_{t-j} + \sum_{j=1}^{n} \sigma_j\, INFR_{t-j} + \sum_{j=1}^{n} \dot{\eta}_j\, EXCR_{t-j} + \sum_{j=1}^{n} \Omega_j\, DSAV_{t-j} + \sum_{j=1}^{n} \pi_j\, GEXP_{t-j} + \sum_{j=1}^{n} \phi_j\, GFCFg_{t-j} + \sum_{j=1}^{n} \theta_j\, REMT_{t-j} + \sum_{j=1}^{n} \beta_j\, FDI_{t-j} + \sum_{j=1}^{n} \lambda_j\, GDPg_{t-j} + \mu_{9t} \quad (2)$$

where:

GDPg = Growth rate of real Gross Domestic Product;

FDI = Foreign Direct Investment as a percentage of GDP;

REMT = Remittances inflows as a percentage of GDP;

GFCFg = Gross Fixed Capital Formation (annual percentage growth);

GEXP =Government Expenditure as a percentage of GDP;

DSAV = Domestic Savings;

EXCR = Exchange Rate;

INFR = Inflation Rate;

FINDEV= Financial development; μ_t are the stochastic error term called impulses or innovations or shocks in VAR; t = Current time

C. Analytical Techniques

The study employed the Vector Autoregressive (VAR) Model to understand the interaction among the variables. However, the properties of these variables such as stationarity, stability condition and long term relationship were verified before estimating the model with VAR. The study employed the Augmented Dickey-Fuller to test for stationarity. Also, Impulse Response Function and Variance Decomposition were employed to examine the effects of shocks and variations caused by a variable on itself and those caused by other variables respectively.

1) Unit root test

The study used Augmented Dickey Fuller (ADF) test to determine the presence of unit root, that is, to ascertain if the variables are stationary. ADF was preferred to test for unit root because it is the simplest approach in testing for unit root and it is very suitable when dealing with a large and complex set of time series data with unknown orders.

2) Impulse response

The impulse response function explains the reaction of an endogenous variable to one of the innovations. It traces the effects on present and future values of the endogenous variable of one standard deviation shock to one of the innovations.

3) Variance decomposition

The variance decomposition, on the other hand, separates the variation in an endogenous variable into component shocks to the VAR. Hence, variance decomposition gives information on the relative importance of each random innovation in affecting the variables in the VAR.

IV. Results and Discussion

A. Unit Root

Table I shows the outcome of the unit root test using Augmented Dickey-Fuller unit root test. The results reveal that the variables become stationary at first differences at one percent and five percent significance levels.

Since all the variables became stationary after first differences, it is crucial to determine the optimum lag length to estimate VAR.

B. VAR Lag Order Selection Criteria

Table II depicts the optimum lag structure for the VAR. The outcomes suggest that four of the selection criteria, that is, sequential modified LR test statistic (LR), Final prediction error (FPE), Schwarz Information Criteria (SC), and the Hannan-Quinn Information Criteria (HQ), selected the optimum lag length of 1 at five percent level of significance except Akaike information criterion (AIC), which chose the optimum lag length of 2. Hence, the lag length of 1 is used in estimating VAR.

TABLE I: Augmented Dickey-Fuller Unit Root Test Result

Variables	ADF test Statistics	Probability	First Diff ADF Statistics	Order of Integration
GDPg	-7.994767	0.0000	-3.679322*	I(1)
FDI	-5.019142	0.0004	-3.689194*	I(1)
REMT	-5.802333	0.0000	-3.679322*	I(1)
GFCFg	-10.0721	0.0000	-3.689194*	I(1)
GEXP	-8.85645	0.0000	-3.679322*	I(1)
DSAV	-8.329001	0.0000	-3.679322*	I(1)
EXCR	-3.458285	0.0168	-2.967767**	I(1)
INFR	-4.169702	0.0039	-3.752946*	I(1)
FINDEV	-4.539525	0.0012	-3.689194*	I(1)

Source: Authors' Computation

Note: * (**) denotes 1% (5%) significance level respectively

TABLE II: VAR Lag Order Selection Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-761.293	NA	1.52e+13	53.0547	53.43184	53.1728
1	-635.237	173.869*	2.49e+11*	48.7749	52.16966*	49.8382*
2	-563.501	59.3679	4.86e+11	48.2415*	54.65360	50.2497
* indicates lag order selected by the criterion						

Source: Authors' Computation 2009

C. Model Estimation Results

Table III depicts the VAR estimate result. The result showed the coefficient of determination, R2 of 0.565350 (56.53%). It implies that 56.53% of the total variation in economic growth is explained by the explanatory variables.

TABLE III: Vector Autoregression Estimates Dependent Variable: GDPG

Independent Variables	Coefficient	Std. Error	t-Statistic
GDPg (-1)	-0.183541	0.23831	-0.77017
FDI (-1)	0.101176	1.02580	0.09863
REMT (-1)	-0.644988	0.77537	-0.83185
GFCFg (-1)	0.200146	0.09282	2.15619
GEXP (-1)	-0.619642	0.77648	-0.79802
DSAV (-1)	-0.048194	0.21496	-0.22420
EXCR (-1)	0.121136	0.05223	2.31934
INFR (-1)	0.125483	0.11380	1.10268
FINDEV (-1)	0.283146	2.15151	0.13160
C	2.586386	16.33030	0.15838
R-squared	0.565350	Akaike AIC	7.196091
Adj. R-squared	0.174165	Schwarz SC	7.693957
Sum sq. resids	574.7565	Mean dependent	4.938890
F-statistic	1.445224	S.D. dependent	8.342483

Source: Authors' Computation 2019

Note: Standard errors in ( ) & t-statistics in [ ]

The result showed that the parameter estimated of FDI is not significant though positive. This, therefore, implies that foreign direct investment has a positive but non-significant impact on economic growth in Nigeria. This outcome lends credence to the works of Akinlo (2004), Ilomona (2010), and Ajide and Adeniyi (2010). The estimated result however revealed that remittances have a negative non-significant influence on economic growth in Nigeria, this result is in line with the findings of Brown and Ahlburg (1991). Gross Fixed Capital Formation as measured by its annual growth rate to capture domestic investment has a significant positive impact on economic growth in Nigeria.

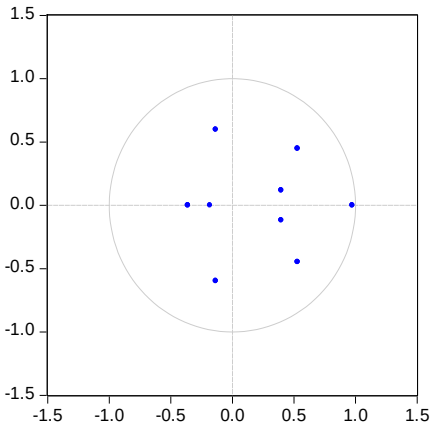
This is in accordance with the A-priori expectation. The estimated result further revealed that Domestic Savings has a negative and non-significance impact of Nigeria economic growth. Also, the result suggests that exchange rate has a significant and direct relationship with economic growth in Nigeria. This is in line with A-priori expectation. Inflation has a positive but non-significant impact on economic growth as depicted by the estimated result. Lastly, the result suggests that financial development has a non-significant but direct impact on economic growth in Nigeria.

D. VAR Stability Condition Check and Inverse Roots of AR

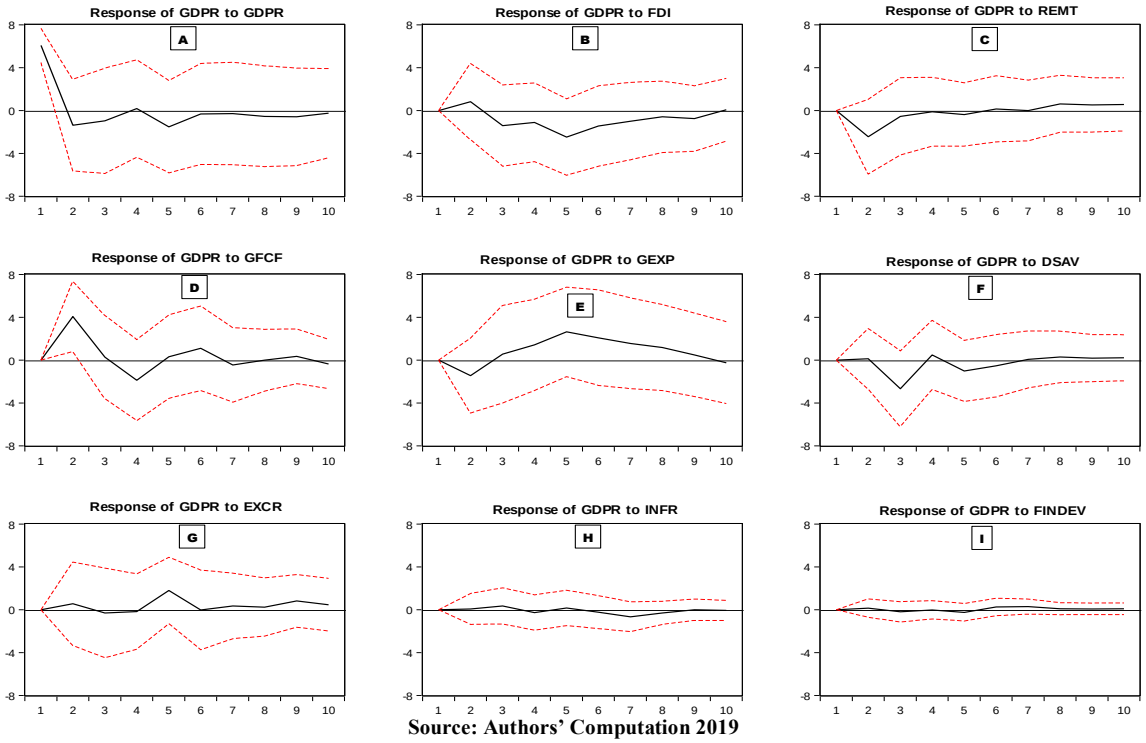
The essence of this test is to check whether there is any issue about non stability of the system. The result showed that the system is stable and no problem of non-stationarity in the system since all the modulus values are less than 1 implying that all the polynomial roots fall within the unit circle as depicted by the graph of AR Inverse Root in Fig. 4(1). This result further shows that the impulse response functions are reliable.

E. Impulse Response

Fig. 4(2) shows the Cholesky impulse response of economic growth to a one standard deviation shock to each of the independent variables. The horizontal axis of the impulse response function (IRF) graph shows the number of periods that have passed after the impulse has been given while the vertical axis measures the responses of the variables. Panel A shows the response of GDPg to its own shock. It can be observed from panel B in Fig. 4.2 that within 95% confidence interval, one standard deviation shock in FDI produced no response on economic growth in the first and second periods, a positive response of 1 percent was generated in the third period, a negative response of 1percent in the fourth period and produce no response from period 6 to 10. This result implies that the FDI has not yielded a significant impact on economic growth in the short run and it has no impact on economic growth in the long run in Nigeria.



Inverse Roots of AR Characteristic Polynomial
Source: Authors' Computation 2019
Fig. 4(1). Graph of AR inverse root.



Source: Authors' Computation 2019
Fig. 4(2). Impulse response function graph.

Panel C shows the response of economic growth to a one standard deviation shock to remittances within 95% confidence interval. At first, there was no immediate response of economic growth to a one standard deviation shock to remittances in the first period but later produces a negative response of 2.5 percent in the second period, a negative of 1 percent in third and fourth periods, and remains negative to period 10. This result indicates that the remittances have yielded negative impact on economic growth in the short run, also in the long run in Nigeria. Panel D to I show the response of GDPg to a one standard deviation shock to other control variables.

V. Conclusions

In this study, an attempt is made to analyze the impact of

foreign direct investment and remittances inflow on economic growth of Nigeria to find reasonable answer to the question of whether FDI and remittances inflow constitute a vital source of economic growth to Nigeria. It was established that foreign direct investment has a positive non-significant impact on Nigeria's economic growth. However, it is evident from the outcome of the study that the remittances inflow has negative non-significant impact on Nigeria economic growth. This may be a result of the consumption smoothing target of remittance income by receiving households which are spent mostly on imported goods, rather than channeling the inflow to productive investment.

Hence, for both FDI and remittances to contribute meaningfully to economic growth in Nigeria, the following recommendations are put forward:

- Government, banks, and remittance service providers should work collaboratively to reduce cost of sending money home by the emigrants. This will reduce informal channel of remittance inflow and encourage workers remittance flow into the country through the formal channels that may be put into productive investment.
- Government should strive to improving micro and macroeconomic fundamentals and building an investment-friendly environment to attract more foreign direct investment. This would involve upgrading national laws and incentives to international standard; lowering transaction costs (i.e., the costs related to setting up business, dealing with bureaucracy, paying taxes, exporting and importing, hiring and firing workers, etc.); and improving the supply of skills, infrastructure, legal and judicial systems and institutions.

Conflict of Interest

The authors declare no conflict of interest.

Author Contributions

The paper was jointly written and approved by the three authors. The contribution of each of the author is summarized below:

Oluwatobi Omolaja Fagbola wrote (I) Introduction and (III) Methodology (Research Design, Sources of Data, Analytical Techniques and Model Speciation) of the research work.

Esther Oluwafunmilayo Adegbite worked on both the (II) Review of Literature and (V) Conclusion aspects of the research work.

Babatunde Olufemi Oke contributed to this research work by handling (IV) Results and Discussion, he carried out the data analysis and discussed the findings of the research work.

References

[1] M. Frankel, "The production function in allocation and growth: A synthesis american economic review," *Materials Science*, vol. 52, pp. 996-1022, 1962.

[2] Koopmans and C. Tjalling, "On the concept of optimal economic growth," *Econometric Approach to Development Planning*, chap. 4, pp. 225–87, 1965.

[3] R. Paul, "Increasing returns and long-run growth," *Journal of Political Economy*, vol. 94, pp. 1002-1037, 1986.

[4] Bacha, "A three-gap model of foreign transfers and the GDP growth rate in developing countries," *Journal of Development Economic*, 1990.

[5] J. Tullio and M. Pagano, "The welfare effects of liquidity constraints," Oxford Economic Papers, 1994.

[6] D. Angus and H. P. Christina, "Growth, demographic structure, and national saving in Taiwan," *Population and Development Review, Forthcoming*, 2000.

[7] R. E. Lipsey and F. Sjöholm, "Foreign direct investment, education and wages in Indonesian manufacturing," *Journal of Development Economics*, 2004.

[8] A. Levchenko and P. Mauro, "Do some forms of financial flows help protect against "sudden stops?" *The World Bank Economic Review*, vol. 21, no. 3, pp. 389-411, 2007.

[9] C. Calderón and H. Nguyen, "Do capital inflows boost growth in developing countries? Evidence from Sub-Saharan Africa," Policy Research Working Paper 7298, World Bank, Washington, DC, 2015.

[10] M. O. Nyong, "Foreign capital inflows, domestic savings and economic development: New evidence and new insights," *NDIC Quarterly Magazine*, vol.12, no. 3, 2002.

[11] S. Adams, "Foreign direct investment, domestic investment and economic growth in Africa," *African Journal of Business Management*, vol. 3, no. 5, pp. 178-183, 2009.

[12] G. Pradhan, K. P. Upadhyaya, and P. U. Mukti, "Remittances and economic growth in developing countries," *European Journal of development Research*, vol. 20, no. 3, pp. 497-506, 2008.

[13] R Chami, C. Fullenkamp, and M. Gapen, "Measuring workers' remittances: What should be kept in and what should be left out," *International Monetary Fund*, 2009.

[14] P. Giuliano and M. Ruiz-Arranz, 2009, "Remittances, financial development, and growth," *Journal of Development Economics*, no. 90, pp. 144–152.

[15] P. M. Orrenius and M. Zavodny, "Do immigrants work in riskier jobs?" *Demography*, vol. 46, pp. 535-551, 2009.

[16] D. Meyer and A. Shera, "The impact of remittances on economic growth: An econometric model," *Economi A*, 2016.

[17] M. Almfraji and K. M. Almsafir, "Foreign direct investment and economic growth literature review from 1994 to 2012," *Procedia-Social and Behvioral Sciences*, vol. 129, pp. 206-213, 2014.

[18] E. William, K. Robert, L. Ross, and S. Rebelo, 1994, "Policy, technology, adoption and growth," *Economic Growth and the Structure of Long Term Development*, International Economics Association, 1994.

[19] G. Grossman and E. Helpman, "Quality ladders in the theory of economic growth," *Review of Economic Studies*, vol. 58, pp. 43-61, 1991.

[20] R. E. Lucas Jr., "On the mechanics of economic development," *Journal of Monetary Economics*, vol. 22, pp. 3-42, 1988.

[21] R. Solow, "A contribution to the theory of economic growth," *Quarterly Journal of Economics*, vol. 70, pp. 65-94, 1956.

[22] T. W. Swan, "Economic growth and capital accumulation," *Economic Record*, vol. 32, no. 63, pp. 334-361, 1956.

[23] M. Lipton, "Migration from rural areas of poor countries: the impact on rural productivity and income distribution," *World Dev.*, vol. 8, no. 1, pp. 1-24, 1980.

[24] D. A. Ahlburg, *Remittances and Their Impact: A Study of Tonga and Western Samoa*, Canberra: National Centre for Development Studies, 1991.

[25] R. P. Brown and D. A. Ahlburg, "Remittances in the South Pacific," *International Journal of Soc. Econ.*, vol. 26, 1991.

[26] A. Barajas, M. T. Gapen, R. Chami, P. Montiel, and C. Fullenkamp, "Do workers' remittances promote economic growth?" *IMF WP/09/153*, 2009.

[27] A. E. Siddique and S. Selvanathan, "Remittances and economic growth: Empirical evidence from Bangladesh, India and Sri Lanka' Department of Economics," Discussion Paper 10.27, University of Western Australia, 2010.

[28] C. Agu, "Remittances for growth: A two fold analysis of feedback between remittances, financial flows and the real economy in Nigeria," presented at the African Econometric Conference, Nigeria, 2009.

[29] E. A. Olubiyi, "Workers' remittances and financial sector performance: The Nigerian experience," *Central Bank of Nigeria (CBN) Economic and Financial Review*, vol. 47, no. 3, September 2009.

[30] E. B. Udah, 2011, "Remittances, human capital and economic performance in Nigeria," *Journal of Sustainable Development in Africa*, vol. 13, no. 4, 2011.

[31] E. U Ukeje and M. E. Obiechina, *Economic Growth, Capital Flows, Foreign Exchange Rate, Export and Trade Openness in Nigeria*, 2010.
[32] A. E. Akinlo, "Foreign direct investment and growth in Nigeria: An empirical investigation," *Journal of Policy Modelling*, vol. 26, pp. 627-639, 2004.
[33] K. B. Ajide and O. Adeniyi, "FDI and the environment in developing economies — Evidence from Nigeria," *Environmental Research Journal*, vol. 4, no. 4, pp. 291-297, 2010.
[34] B. O. Badeji and O. M. Abayomi, "The impact of foreign direct investment on economic growth in Nigeria," *International Research Journal of Finance and Economics*, vol. 73, 2011.
[35] Ilemona, *Accelerating Economic growth in Nigeria, the Role of Foreign Direct Investments*, pp. 11-15, 2010.
[36] E. O. Adegbite and S. F. Ayadi, "The role of foreign direct investment in economic development: A study of Nigeria," *World Journal of Entrepreneurship, Management & Sustainable Development*, vol. 6, 2011.
[37] E. S. Akpan and G. O. Eweke, "Foreign direct investment and industrial sector performance: Assessing the long-run implication on economic growth in Nigeria," *Journal of Mathematical Finance*, vol. 7, pp. 391-411, 2017.

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