

# Economic growth effect of private capital inflows: a structural VAR approach for Nigeria

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## Abstract

**Purpose** – The purpose of this paper is to examine the effect of shocks in the various components of private capital inflows on economic growth in Nigeria using quarterly data in the period 1986Q1–2016Q4.

**Design/methodology/approach** – The study employs the impulse response function and the forecast error variance decomposition of the structural vector autoregression (SVAR) model.

**Findings** – The research result shows that shocks in foreign direct investment (FDI) inflows and portfolio investment inflows have a positive and significant impact on economic growth in Nigeria. In addition, FDIs accounted for significant variation in the growth of the Nigerian economy followed by portfolio investments, while personal remittances exerted the least variation in growth.

**Practical implications** – The government should promote a favorable macroeconomic environment for existing and potential foreign investors to ensure the continued inflows of FDI and portfolio investment.

**Originality/value** – The novelty of this study lies in disaggregating private capital inflows and analyzing the effect of the shock of each component on the growth of the Nigerian economy using SVAR.

**Keywords** Economic growth, Nigeria, Private capital inflows, Shocks, SVAR

**Paper type** Research paper

## 1. Introduction

One of the major constraints of economic growth in developing countries is the inadequacy of savings and investments (Jagadeesh, 2015), and one way of easing the constraints of the low level of domestic savings and investment is to attract inflows of private capital (Obadan, 2004). Private capital inflows, which are transmitted through foreign direct investment (FDI), portfolio investment and remittances (Obadan, 2004), constitute a crucial channel through which resources are transferred from the rich-developed countries to the poor-underdeveloped countries (Chatterjee and Turnosky, 2007). Private capital inflows, according to Carkovic and Levine (2005), Ralhan (2006) and Ocharo (2013), help to broaden and deepen the financial markets, increase liquidity, and facilitate the transfer of technology and management expertise. Furthermore, private capital flows promote the creation of new job opportunities and boost economic growth (Ajayi, 2006).

Considering the role of private capital flows in economic growth, policy makers in the developing economies have given attention to the need to attract foreign capital. For instance, Nigeria has initiated some policies and programs over the years in a bid to attract foreign capital. Some of these policies include the Structural Adjustment Program of 1986; the Nigerian Investment Promotion Commission of 1995, aimed at enhancing the investment climate of the nation; the National Economic Empowerment and Development Strategies, launched in 2003 to make resources available for investment in infrastructure and social services; and the financial sector reforms, aimed at enhancing private led-growth and ensuring macroeconomic stability (Owo, 2013). Despite the various policies and reforms, the



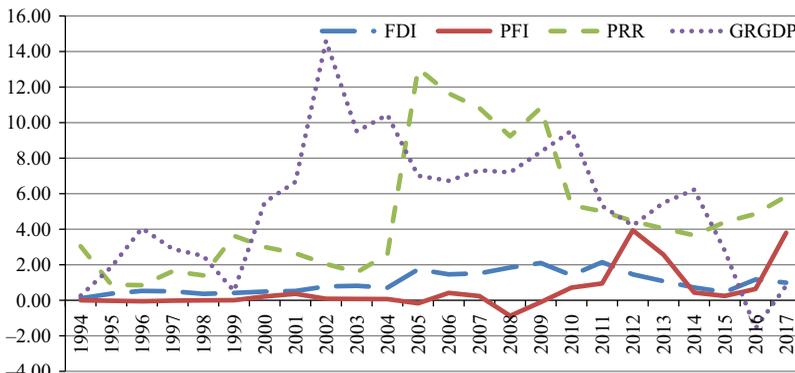
rate of private capital inflows still lags behind rather than leads growth, and the volume of private capital inflows has continued to fall short of the resource gap (Bello, 2014).

Studies on capital inflows and economic growth abound in Nigeria (e.g. Akinlo, 2004; Omisakin *et al.*, 2009; Adebite and Ayadi, 2011; Ekwe and Inyama, 2014; Saibu, 2014; Edu *et al.*, 2015). These studies, however, have paid less attention to the effect of shocks in the various components of private capital inflows (FDI inflows, portfolio investment inflows (PFI) and remittances) on the growth of the Nigerian economy. As a result, this study seeks to analyze the effect of shocks in various components of private capital inflows on economic growth in Nigeria using the structural vector autoregression (SVAR) approach.

The rest of the paper is organized as follows. Section 2 presents an overview of the role of private capital inflows in the growth of the Nigerian economy. Section 3 consists of a review of past literature. Section 4 features the theoretical framework. Section 5 presents the methodology and data of the study. Section 6 presents the results and discussion of findings while the conclusions and policy implications are presented in the last section of the study.

## 2. An overview of the role of private capital inflows in growth

Figure 1 represents the percentage contribution of FDIs to gross domestic product (GDP), portfolio investment to GDP, and remittances to GDP between 1994 and 2017. The graph also depicts the growth in GDP in the period. The trend reveals that the contribution of FDI to GDP has been fairly stable over the period. However, the contribution of portfolio investment to the nation's GDP has been relatively unstable particularly in 2004/2005, which marked the commencement of a bank consolidation exercise by the Central Bank of Nigeria (CBN). The contribution of portfolio investment also experienced a major setback in 2008 following the global financial crisis. It rebounded, however, in 2010, and since then has maintained a relative stable contribution to the nation's GDP. Remittances, as depicted in Figure 1, have been contributing immensely to the nation's GDP. The country experienced a surge in remittances between 2004 and 2005, which marked the era of the bank consolidation exercise. The contribution of remittances, however, declined drastically in the aftermath of the global financial crisis but began to rise again in 2014. The decline, notwithstanding remittances, among other components of private capital inflows, has contributed tremendously to the nation's GDP. The trend signals the fact that the country needs to formulate policies geared toward the development of the financial market in a bid to stimulate portfolio investment. It is also pertinent for the nation to create an enabling environment that will cause FDI to thrive, thus contributing to the nation's GDP.



Source: Central Bank of Nigeria (2017)

Figure 1. Percentage share of private capital inflows in growth

### 3. Review of empirical literature

There are several studies on the relationship between private capital inflows and economic growth. While a number of studies found a positive relationship between private capital inflows and economic growth, other studies noted either a negative relationship or an ambiguous effect of private capital inflows on economic growth. For instance, Bailliu (2000) examined the relationship between private capital flows, financial development and economic growth in 40 developing countries in a bid to know whether capital inflows exert a significant effect on growth. The study employed a dynamic panel technique on time series data in the period 1975–1995 and found that private capital inflows induce higher economic growth. Similarly, Soto (2000) analyzed the effect of the various components of private capital inflows on economic growth employing a dynamic panel of 44 developing countries over the period 1986–1997. The findings of the study revealed that FDI and portfolio equity flows have a strong and positive relationship with economic growth. In the same vein, Berument and Dincer (2004) used monthly data in the period 1992–2001 to 2001–2006 to analyze the effect of capital inflows on macroeconomic performance in the Turkish economy. The study used the vector autoregression (VAR) estimation technique and found that a positive innovation in capital inflows increased the level of output in the economy. Sethi's (2008) study on economic reforms, capital flows and macroeconomic impact on India in the period 1995–2006 also noted a long-run relationship between private capital inflows and economic growth. The study concluded that FDI has a positive effect on economic growth. Using data from 100 countries during 1990–2010, Aizenman *et al.* (2013) investigated the relationship between the various types of capital inflows (FDI, portfolio investment, equity investment and short-term debt) and economic growth. The study found that a strong relationship exists between FDI and economic growth while the relationship between equity flows and growth is weak and unstable. Saibu (2014) examined the role of trade openness in capital inflows and the growth nexus in the Nigerian economy. The study employed principal component analysis to form an index of capital flows. The outcome of the study revealed that capital inflows exert a positive effect on growth especially when it is interacted with trade openness. A recent study by Jugurnath *et al.* (2016) investigated the effect of FDI on growth in 32 sub-Saharan African economies over the period 2008–2014 and found that FDI has a positive and a significant effect on economic growth.

On the contrary, other studies have either found a negative or no relationship between private capital inflows and economic growth. For example, Durham (2004) used the ordinarily least squares method to examine the effects of FDI and foreign portfolio investment on the economic growth of 80 countries in the period 1979–1998. The findings of the study revealed that the lag of FDI and foreign portfolio investment did not have a direct effect on economic growth. Using the error correction model technique on time series data over the period 1970–2001, Akinlo (2004) investigated the economic effect of private capital inflows in Nigeria and found that both private capital and lagged foreign capital do not statistically affect economic growth. Also, Ayanwale's (2007) study on FDI and economic growth in Nigeria revealed that economic growth effect of FDI is not statistically significant, even though the relationship between FDI and growth is positive. Agbloyor *et al.* (2014) decomposed private capital inflows into components which include FDI, foreign equity portfolio investment and private debt flows, and analyzed the relationship of each component in relation to growth in some selected African countries using a panel instrumental variable, Generalized Method of Moments (IV-GMM) over the period 1990–2007. The outcome of the study showed that FDI, foreign equity portfolio investment and private debt flows have a negative effect on economic growth. A recent study by Klobodu and Adams (2016) investigated the short- and long-run effect of capital inflows on economic growth over the period 1970–2014 using the autoregressive distributed lag in the Ghanaian economy. The findings of the study show that the various components of capital inflows, namely, FDI, aid and foreign debts, have a negative effect on economic growth.

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The study, however, indicates that remittances exhibit a positive and insignificant relationship with economic growth. The outcome of this study tends to imply that the impact of private capital inflows to Africa has been exaggerated.

The preceding literature suggests that the economic growth effect of private capital inflows is inconclusive. It is also important to mention that extant literature on the private capital inflows and growth nexus in Nigeria paid less attention to the effect of shocks in the various components of private capital inflows on economic growth. The study, therefore, contributes to the literature on capital inflows and growth nexus in two ways. First, the study analyzes the effect of shocks in the various components of private capital inflows on economic growth in the Nigerian economy. Second, the study attempts to tread on a distinct trajectory by focusing mainly on private capital inflows and not the entire capital inflows.

#### 4. Theoretical framework

The study is hinged on three theories in explaining the relationship between the various private capital inflows and economic growth. These theories include the technological change model, the two-gap model, and the self-interest theory. Each of these theories attempts to explain the linkage between the different types of private capital inflows and economic growth. The technological change model was proposed by Hermes and Lensink (2003). The theory noted that the extent to which an economy can experience growth is dependent on the degree to which an economy can adopt and implement new technologies and ideas, and the main channel in which developing countries can adopt and implement new technologies is through FDI inflows. According to Hermes and Lensink (2003), FDI can help to enhance growth through the introduction of new technologies, managerial skills and new varieties of capital goods. Kinoshita (1998) and Sjöholm (1999) noted that the spillover effect of FDI can occur through imitation, competition, and linkage. The spillover via the imitation channel explains that technologies employed by foreign companies are more sophisticated than the ones used by local firms; hence, the local firms may imitate the advanced technology used by the foreign companies, thus making them more productive and experience growth. The spillover through competition emphasizes that the entrance of foreign companies stirs up competition in the local market thus forcing local companies to become more efficient, which can culminate in upgrading existing technology and enhancing managerial skill enhancing productivity and economic growth. The spillover effect through a linkage channel posits that foreign companies can transfer new technologies to firms via transactions in the form of raw materials or intermediate goods, which can result in buyer–seller relations with local firms in the host nation.

The two-gap model was developed by Chenery and Bruno (1962) and Chenery and Strout (1966). The first gap arises when the domestic savings are insufficient to support the rate of capital accumulation needed for a given level of growth (savings gap). The second gap stems from the inadequacy of the foreign exchange earnings to meet the required imports of capital goods (foreign exchange gap). The two-gap model asserts that PFI are important determinants of economic growth because they help to augment domestic savings that are channeled into productive investment. This, in turn, would cause developing countries to experience higher growth rates than developed ones (Howitt and Aghion, 1998).

The self-interest theory posits that a migrant saves at his destination and remits money to his country of origin in a bid to embark on investment projects such as the purchase of land and property, and to invest in the stock market or the money market. These investments, which are administered by the migrant's relatives back home, help to increase the overall level of investment in the home country and this will culminate in higher economic growth. De la Briere *et al.* (1997), Hoddinott (1994), Osili (2004) and Schrieder and Knerr (2000) noted that the more the quest for asset acquisition by migrants, the more the amount of remittances sent. As remittances are channeled into investment purposes, the more the domestic economy experiences, higher economic growth.

## 5. Methodology and data

### 5.1 Methodology

The effect of the different types of private capital inflows using SVAR can be expressed in the reduced form as:

$$\Gamma X_t = A(L)X_{t-1} + U_t, \quad (1)$$

where  $X_t \equiv (RGDP_t, FDI_t, PFI_t, PRR_t)$  represents the vector of endogenous variables,  $\Gamma$  represents the matrix of coefficients of the endogenous variables,  $A(L)$  represents an autoregressive (AR) polynomial in the lag operator  $L$  and  $U_t \equiv (u_t^{RGDP}, u_t^{FDI}, u_t^{PFI}, u_t^{PRR})$  represents the vector of reduced-form shocks.

In a bid to identify the long-run effects of structural shocks, some restrictions, based on theories, are imposed. The long-run restriction is summed up in a matrix form as follows:

$$\begin{bmatrix} RGDP_t \\ FDI_t \\ PFI_t \\ PRR_t \end{bmatrix} = \begin{bmatrix} 1 & a_{12} & a_{13} & a_{14} \\ a_{21} & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix} \begin{bmatrix} u_t^{RGDP} \\ u_t^{FDI} \\ u_t^{PFI} \\ u_t^{PRR} \end{bmatrix}. \quad (2)$$

### 5.2 Preliminary data analysis

The study used the Augmented Dickey–Fuller (ADF) test to test the time property of each of the variables employed in the study. The study also used the trace test statistic and maximum eigenvalue statistical tests to ascertain the existence of a long-run relationship between the variables employed in the study. To forestall the selection of higher lag length rather than the true length, the study used the lag selection criteria in selecting the optimal lag length for VAR.

### 5.3 Impulse response functions (IRF)

The IRF shows the response or reaction of an endogenous variable to shock in itself and shocks in other endogenous variables in the model. The IRF also serves as a tool, which allows one to trace out the time path of the various shocks on variables in the VAR system.

### 5.4 Forecast error variance decomposition (FEVD)

The FEVD explains the proportion of movement in a sequence that occurs as a result of its own shocks vs the shocks of other variables in the VAR system. In other words, FEVD measures the contribution of each type of shock to the forecast error variance.

### 5.5 Source of data

The study used quarterly data on the selected variables in the period 1986Q1–2016Q4. The relevant variables considered in the study include economic growth, which is proxy by real gross domestic product (RGDP). The various components of private capital inflows considered include FDI inflows, PFI and personal remittances received (PRR). Data on each of these variables are all obtained from the CBN Statistical Bulletin of 2016.

## 6. Results and discussion

### 6.1 Stationarity test

Table I depicts the ADF unit root test results. The outcome of the test shows that all the variables are stationary after the first difference.

6.2 Lag selection criteria

Table II shows the outcome of the lag selection criteria result. The result indicates that most of the lag selection criteria such as the final prediction error, Akaike information criterion, Schwarz information criterion and Hannan–Quinn information criterion indicate that the optimal lag length is 2. Hence, the optimal lag length of 2 is employed in carrying out the cointegration test as well as estimating the SVAR.

6.3 Cointegration test

Table III shows the results of both the trace and maximum eigenvalue test for cointegration. The trace and maximum eigen tests showed that a long-run relationship exists between the variables.

6.4 Structural vector autoregression (SVAR) results

It is important to state that the study only focuses on the IRF and the FEVD of SVAR to analyze the economic growth effect of shocks in FDI, portfolio investment (PFI) and the PRR. Hence, the study only reported the IRF and the FEVD.

6.5 Impulse response functions (IRF)

The IRF results show the dynamic responses of economic growth (RGDP) to shocks in FDI inflows, PFI and PRR.

6.5.1 Response of RGDP to FDI. Figure 2 depicts the response of economic growth (RGDP) to shocks in FDI inflows. The result suggests that FDI inflows have a positive and significant effect on the growth of the Nigerian economy. The economic justification for this

Variables	Augmented Dickey–Fuller					Order
	Intercept	Level Trend and intercept	First difference			
Log(RGDP)	-0.8430 (0.8028)	-1.8230 (0.6875)	-2.6241 (0.0910)*	-2.4459 (0.3544)		I (1)
Log(FDI)	-3.0267 (0.0353)**	-1.2845 (0.8867)	-6.333821 (0.0000)***	-8.141100 (0.0000)***		I (1)
Log(PFI)	-1.154749 (0.6921)	-2.608749 (0.2773)	-6.660444 (0.0000)***	-6.635288 (0.0000)***		I (1)
Log(PRR)	-2.404772 (0.1428)	-1.940942 (0.6264)	-2.637463 (0.0886)*	-3.164294 (0.0971)*		I (1)

**Notes:** Values in parentheses ( ) are the probability values. \*, \*\*, \*\*\*Significant at 10, 5 and 1 percent levels, respectively  
**Source:** Author’s computation using EViews 9

Table I.  
ADF unit root test result

Lag length test	Sequential modified test (LR)	Final prediction error (FPE)	Akaike information criterion (AIC)	Schwarz information criterion (SIC)	Hannan–Quinn information criterion (HQ)
0	na	0.051802	8.391185	8.487730	8.430362
1	1,814.644	3.47e-09	-8.127885	-7.645161	-7.932000
2	213.3938	5.92e-10*	-9.896562*	-9.027659*	-9.543970*
3	7.289252	7.33e-10	-9.686268	-8.431187	-9.176970
4	6.174910	9.17e-10	-9.467405	-7.826145	-8.801398
5	44.29929*	7.58e-10	-9.665733	-7.638294	-8.843019
6	25.11000	7.66e-10	-9.667888	-7.254270	-8.688467
7	7.764083	9.43e-10	-9.477132	-6.677335	-8.341003
8	7.667569	1.16e-09	-9.289790	-6.103815	-7.996955

**Note:** \*Significant at 10 percent level  
**Source:** Author’s computation using EViews 9

Table II.  
VAR lag selection criteria

is that FDI helps in introducing advanced technologies, managerial skills and new varieties of capital goods in the economy, thereby resulting in economic growth.

6.5.2 *Response of RGDP to PFI*. Figure 3 represents the response of economic growth (RGDP) to shocks in portfolio investment (PFI) inflows. The result indicates that PFI have a positive impact on the growth of the Nigerian economy. The economic rationale of the outcome is that PFI enhance the level of financial liquidity in the host country, thereby making funds available for productive investment that culminates in economic growth.

6.5.3 *Response of RGDP to PRR*. Figure 4 shows the response of economic growth (RGDP) to shocks in personal remittances (PRR). The result suggests that PRR do not have a positive impact on economic growth. The economic justification of this finding is that a significant proportion of remittances that flow into the country are spent on consumption, while only a small proportion go into savings or investment (Chami *et al.*, 2005).

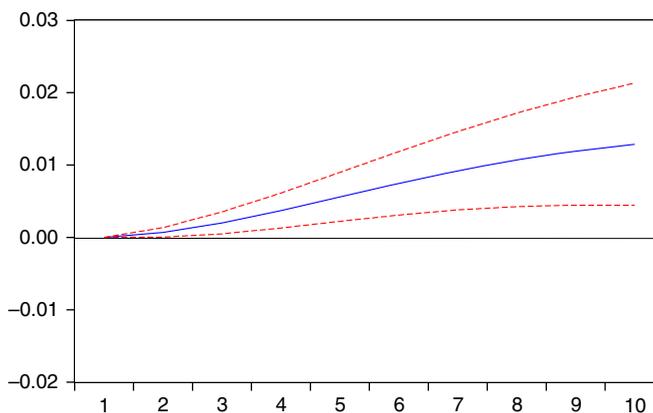
6.6 *Forecast error variance decomposition (FEVD)*

Table IV represents the FEVD estimated from the SVAR. It is important to mention that the study presented only the FEVD result of RGDP because the study focuses on the effects of shocks in inflows of FDI, portfolio investment (PFI), and PRR on economic growth (RGDP).

Model	Null hypothesis	Trace statistic	Critical value (5%)	Maximum eigen	Critical value (5%)	Results
Lag length: 2	$r \leq 0$	55.3079	47.8561	28.9801	27.5843	Both trace and maximum eigen tests showed the presence of one cointegrating vector
	$r \leq 1$	26.3277	29.7970	13.9688	21.1316	
	$r \leq 2$	12.3589	15.4947	10.4753	14.2646	
	$r \leq 3$	1.8835	3.8414	1.8835	3.8414	

**Table III.**  
Cointegration test results

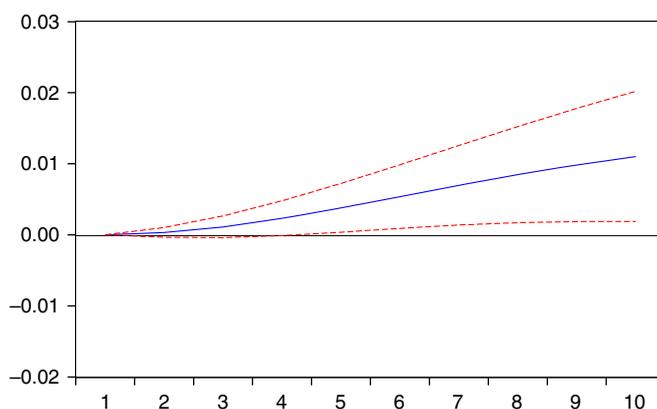
Source: Author's computation using EViews 9



**Figure 2.**  
Response of economic growth to foreign direct investment

Notes: Response to Cholesky 1 SD innovations  $\pm 2$  SE. Response of Log(RGDP) to Log(FDI)

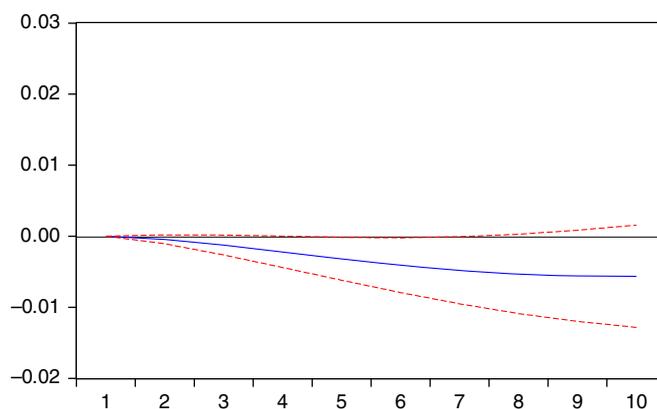
Source: Author's computation using EViews 9



**Notes:** Response to Cholesky 1 SD innovations  $\pm$  2 SE. Response of Log(RGDP) to Log(PFI)

**Source:** Author's computation using EViews 9

**Figure 3.** Response of economic growth to portfolio investment



**Notes:** Response to Cholesky 1 SD innovations  $\pm$  2 SE. Response of Log(RGDP) to Log(PRR)

**Source:** Author's computation using EViews 9

**Figure 4.** Response of output to personal remittances received

Table IV depicts the FEVD of economic growth (RGDP) in Nigeria. The result indicates that the growth of the Nigerian economy is mostly driven by FDI. This result tends to lend credence to the technological change model of Hermes and Lensink (2003) that the economic growth of any nation is driven by the level of technology and technology can only be enhanced by FDI inflows. FDI is conceived as the prime mover of new technologies, managerial skills and new varieties of capital goods required for economic growth. Also, the economic rationale of the result is that FDI is less volatile in relation to other components of private capital inflows.

The FEVD also shows that portfolio investment (PFI) inflows exert less influence on economic growth despite the fact that PFI inflows offer an avenue where funds can be mobilized through the financial market to augment domestic savings. The economic

**Table IV.**  
Forecast error  
variance  
decomposition

Period	SE	Log(RGDP)	Log(FDI)	Log(PFI)	Log(PRR)
1	0.004	100.00	0.00	0.00	0.00
2	0.008	98.82	0.71	0.15	0.30
3	0.012	95.41	2.70	0.81	1.06
4	0.017	90.12	5.69	2.10	2.07
5	0.023	83.86	9.12	3.89	3.11
6	0.029	77.53	12.51	5.94	3.99
7	0.034	71.75	15.54	8.05	4.64
8	0.041	66.77	18.07	10.10	5.05
9	0.047	62.62	20.12	12.01	5.23
10	0.053	59.23	21.72	13.77	5.25

**Source:** Author's computation using EViews 9

rationale for this is that portfolio investment is highly volatile and foreign investors can easily withdraw their investment if they perceived adverse macroeconomic indicators. Also, the nature of the Nigerian financial market is relatively less developed. As a result, foreign investors have low incentive to becoming a player in the market.

Finally, the FEVD reveals that remittances account for the least variation in economic growth. This implies that remittances, in the context of the Nigerian economy, do not follow the self-interest model, as remittances are not sent with the aim of acquiring assets; rather, remittances are mostly sent with the purpose of improving the standard of living of family and to strengthen the ties between the remitters and their relatives.

#### 6.7 Inverse roots of AR characteristic polynomial

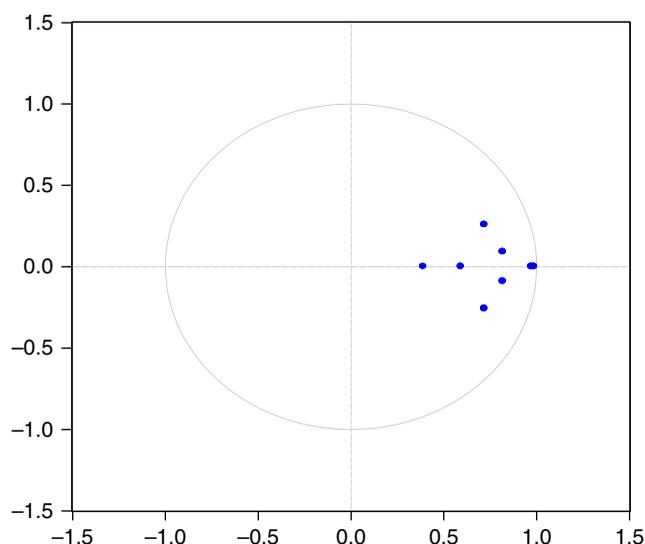
To ascertain whether the IRF and the FEVD estimates from the SVAR are stable and reliable for economic decision making, the study estimated the inverse roots of AR characteristic polynomial. The IRF and the FEVD estimates are said to be stable and reliable if all the polynomial roots (dots) fall within the circle. If any of the dots lie outside the circle, then the IRF and FEVD are said to be unstable, hence not reliable for the purpose of making economic decisions (see Figure 5).

Figure 5 depicts the inverse roots of the AR characteristic polynomial. The inverse roots of AR characteristic polynomial indicates that all the dots fall within the circle. Thus, the estimated IRF and the FEVD of SVAR are stable and reliable.

### 7. Conclusion and policy recommendations

The study analyzed the effect of shocks in the various components of private capital inflows on economic growth in Nigeria over the period of 1986Q1–2016Q4 using impulse response (IRF) and the FEVD of the SVAR model. Findings from the IRF showed that FDI inflows exert a positive impact on economic growth. This implies that FDI flows into Nigeria have contributed to growth through increased factor productivity, efficient use of resources and transfer of managerial skills and advanced technology. It was also found that portfolio investment flows have a positive impact on the growth of the Nigerian economy. The impact is exerted through increased financial liquidity, which has made funds available for productive investment. The IRF, however, showed that personal remittances have not resulted in the growth of the Nigerian economy. The study also noted that from the FEVD, FDI accounts for the major variation in economic growth. This phenomenon is due to the fact that FDI constitutes the most stable components of private capital inflows.

The study recommends that the Nigerian Government should promote a favorable macroeconomic environment for existing and potential foreign investors to ensure that FDIs continue to stimulate sustainable economic growth. Also, the government should promote



**Figure 5.**  
Inverse roots of AR  
characteristic  
polynomial

sound economic policies (i.e. fiscal and monetary policies) to strengthen the financial system as this will stimulate the inflows of portfolio investments. There is a need for policy makers to ensure greater openness in the stock market in order to promote greater participation of foreign investors in the market.

## References

- Adegbite, E.O. and Ayadi, F.S. (2011), "The role of foreign direct investment in economic development: a study of Nigeria", *World Journal of Entrepreneurship, Management and Sustainable Development*, Vol. 6 Nos 1/2, pp. 133-147.
- Agbloyor, E.K., Abor, J.Y., Adjasi, C.K.D. and Yawson, A. (2014), "Private capital flows and economic growth in Africa: the role of domestic financial markets", *Journal of International Financial Markets, Institutions and Money*, Vol. 30, pp. 137-152.
- Aizenman, J., Jinjarak, Y. and Park, D. (2013), "Capital flows and economic growth in the era of financial integration and crisis, 1990-2010", *Open Economies Review*, Vol. 24 No. 3, pp. 371-396.
- Ajayi, S.I. (2006), "The determinants of foreign direct investment in Africa: a survey of the evidence", in Ajayi, S.I. (Ed.), *Foreign Direct Investment in Sub-Saharan Africa: Origins, Targets, Impact and Potential*, African Economic Research Consortium, Nairobi, pp. 1-230.
- Akinlo, A.E. (2004), "Foreign direct investment and growth in Nigeria: an empirical investigation", *Journal of Policy Modeling*, Vol. 26 No. 5, pp. 627-639.
- Ayanwale, A.B. (2007), "FDI and economic growth: evidence from Nigeria", The African Economic Research Consortium, Research Paper, Nairobi, p. 165.
- Bailliu, J.N. (2000), "Private capital flows, financial development, and economic growth in developing countries", Bank of Canada, Ottawa.
- Bello, M.A. (2014), "Impact of capital flow, sudden stop and reversal on economic growth in Nigeria", Master of Science Degree in economics, Ahmadu Bello University, Zaria.
- Berument, H. and Dincer, N.N. (2004), "Do capital flows improve macroeconomic performance in emerging markets? – The Turkish experience", *Emerging Markets Finance and Trade*, Vol. 40 No. 4, pp. 20-32.

- Carkovic, M. and Levine, R. (2005), "Does foreign direct investment accelerate economic growth?", in Graham, E.M., Moran, T.H. and Blomström, M. (Eds), *Does Foreign Direct Investment Promote Development: New Methods, Outcomes and Policy Approaches*, Institute for International Economics Press, Washington, D.C., pp. 195-220.
- Central Bank of Nigeria (2017), *Central Bank of Nigeria Annual Statistical Bulletin*, Abuja, Nigeria.
- Chami, R., Fullenkamp, C. and Jahjah, S. (2005), "Are immigrant remittance flows a source of capital for development?", *IMF Staff Papers*, Vol. 52 No. 1, pp. 55-81.
- Chatterjee, S. and Turnosky, S.J. (2007), "Foreign aid and economic growth: the role of flexible labor supply", *Journal of Development Economics*, Vol. 84 No. 4, pp. 507-533.
- Chenery, H.B. and Bruno, M. (1962), "Development alternatives in an open economy: the case of Israel", *The Economic Journal*, Vol. 72 No. 285, pp. 79-103.
- Chenery, H.B. and Strout, A.M. (1966), "Foreign assistance and economic development", *The American Economic Review*, Vol. 56 No. 4, pp. 679-733.
- De la Briere, B., Dde Janvry, A., Lambert, S. and Sadoulet, E. (1997), "Why do migrants remit? An analysis for the Dominican Sierra", FCND Discussion Paper No. 37, FCND, Washington, DC.
- Durham, J.B. (2004), "Absorptive capacity and the effects of foreign direct investment and equity foreign portfolio investment on economic growth", *European Economic Review*, Vol. 48 No. 2, pp. 285-306.
- Edu, G.T., Lucky, I. and Basse, A.F. (2015), "Foreign private capital inflows and economic growth in Nigeria", *European Journal of Business and Social Sciences*, Vol. 4 No. 8, pp. 205-217.
- Ekwe, M.C. and Inyama, O.I. (2014), "Foreign capital flows and growth of the Nigeria economy: an empirical review", *International Journal of Economics and Finance*, Vol. 6 No. 4, pp. 103-109.
- Hermes, N. and Lensink, R. (2003), "Foreign direct investment, financial development and economic growth", *The Journal of Development Studies*, Vol. 40 No. 1, pp. 142-163.
- Hoddinott, J. (1994), "A model of migration and remittances applied to Western Kenya", *Oxford Economic Papers*, Vol. 46 No. 3, pp. 459-476.
- Howitt, P. and Aghion, P. (1998), "Capital accumulation and innovation as complementary factors in long-run growth", *Journal of Economic Growth*, Vol. 3 No. 2, pp. 111-130.
- Jagadeesh, D. (2015), "The impact of savings in economic growth: an empirical study based on Botswana", *International Journal of Research in Business Studies and Management*, Vol. 2 No. 9, pp. 10-21.
- Jugurnath, B., Chuckun, N. and Fauzel, S. (2016), "Foreign direct investment & economic growth in Sub-Saharan Africa: an empirical study", *Theoretical Economics Letters*, Vol. 6 No. 4, pp. 798-807.
- Kinoshita, Y. (1998), "Technology spillovers through foreign direct investment", CERGE-EI Working Paper Series No. 139, CERGE-EI, Prague.
- Klobodu, E.K.M. and Adams, S. (2016), "Capital flows and economic growth in Ghana", *Journal of African Business*, Vol. 17 No. 3, pp. 291-307.
- Obadan (2004), *Foreign Capital Flows and External Debt: Perspectives on Nigeria and the LDCs Group*, Broadway Press, Lagos Nigeria, p. 120.
- Ocharo, K.N. (2013), "Private capital inflows, remittances and economic growth in Kenya", doctoral dissertation, Kenyatta University, Nairobi.
- Omisakin, O., Adeniyi, O. and Omojolaibi, A. (2009), "Foreign direct investment, trade openness and growth in Nigeria", *Journal of Economic Theory*, Vol. 3 No. 2, pp. 13-18.
- Osili, U. (2004), "Migrant and housing investment: theory and evidence from Nigeria", *Economic Development and Cultural Change*, Vol. 52 No. 4, pp. 821-850.
- Owo, B.I. (2013), "Foreign private capital inflows in Nigeria's democratic dispensation", *Journal of Research in National Development*, Vol. 11 No. 1, pp. 117-124.
- Ralhan, M. (2006), "Determinants of capital flows: a cross country analysis", Econometrics Working Paper No. EWP0601, University of Victoria, Victoria.

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- Saibu, O.M. (2014), "Capital inflow and economic growth nexus in Nigeria: the role of trade openness", *Acta Universitatis Danubius (Economica)*, Vol. 10 No. 6, pp. 98-112.
- Schrieder, G. and Knerr, B. (2000), "Labour migration as a social security mechanism for smallholder households in Sub-Saharan Africa: the case of Cameroon", *Oxford Development Studies*, Vol. 28 No. 2, pp. 223-236.
- Sethi, N. (2008), "Economic reforms, capital flows and macro economic impact on India: rethinking India's growth strategy services vs. manufacturing", Concept Publishing Company, New Delhi, pp. 560-580.
- Sjöholm, F. (1999), "Productivity growth in Indonesia: the role of regional characteristics and direct foreign investment", *Economic Development and Cultural Change*, Vol. 47 No. 3, pp. 559-584.
- Soto, M. (2000), "Capital flows and growth in developing countries: recent empirical evidence", Working Paper No. 160, OECD Development Centre, Paris.

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