

Financial Sector Reforms, Private Investment and Output Growth in Nigeria

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Research Interest: Monetary Economics / Development Economics

Abstract: *This study examined the relationship among financial sector reforms, private investment and economic growth in Nigeria between 1990q1 and 2017q4. Data for the study were sourced from Central Bank of Nigeria Statistical Bulletin, 2017 edition. The study built its model on AK Model which emanates from the Similistic Growth Model. The study employed Vector Autoregressive Distributive Lag (VAR) as estimation technique. Findings from the study showed that shocks emanating from both investment and financial sector reforms dummy have positive but insignificant effects on output growth rate. Based on this finding, the study therefore concludes that both investment and financial sector reforms did not significantly impact the growth of Nigerian economy during the study period.*

Keywords: *Financial Sector reforms, Investment, Economic Growth and VAR.*

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I. Introduction

Nigerian economy has experienced unprecedented economic and financial crises in the last two decades. These crises manifested themselves through different channels. For instance, some came through macro economic imbalances such as widening savings-investment gaps, inflation, chronic debts, fiscal deficit, exchange rate fluctuation and reduction in investment level. This has impacted the Nigerian output growth negatively and also brought about severe decline in per capital income (Folorunso and Sanusi, 2005), while some came through reduction in crude oil price at international oil market.

In the economic literature, there is an established positive correlation between investment and economic growth. Some studies Oke (2010), Sanusi(2005), and Ogunsakin (2016), have shown that the slow pace of output growth in Nigeria is as a result of low propensity to invest. This has now increased the agitations and concern by economists and policy makers about Nigeria dismal economic growth records relative to other developing countries that have experienced an increase in their investment level, Such as South Africa, Asian Tiger and others. In the mid 1980s, to solve these problems, structural adjustment programme [SAP] was introduced in the country. The introduction of the SAP increased Nigerians' expectation that Nigerian economy will bounce back to the period of relatively high growth rate through economic liberalization and induced investment climate. This expectation however did not come to realization. Infact, investment recorded during this period was less than what was achieved in the period before SAP. From available records, both private and public investment share of GDP which was an average of 24.5% for the boom period of 1973-1980, attained a peak of 31.5% in 1976. This was made possible because of increase in revenue from crude oil. Therefore, government during this period was able to undertake investment projects which triggered the mechanism of economic growth and development. The data spread for this period seems to suggest a crowding out efforts of public investment on private investment, with public investment averaging 15.6% of GDP with a peak of 24.3% in 1976 while private investment averaged 8.9% of GDP with a peak of 14.6% in 1973 (Ajilore and Folorunso, 2012). This accelerated growth in investment level was interrupted by the collapse of crude oil price at international oil market in 1980s. Reduction in crude oil price during this period brought about macroeconomic imbalance and dropped in revenue accrued to federation accounts. This, however, led to budget deficit which was financed majorly by the Central Bank. Based on this, less credit was made available for both private and public investments, hence, the oscillation in the crude oil price. Economic growth and investment level continued till late 2015 when Nigerian economy finally entered into economic recession.

Before the introduction of structural adjustment programme, financial system in Nigeria was fully regulated. The reason for this has been that, it was assumed that less developed financial system could not by itself allocate resources to the identified priority sectors of the economy optimally without some direct and indirect controls. Elements of this controlled regime included direct controls on interest rates, including preferential rates for certain loan categories like agriculture and manufacturing. It became evident that the

controlled regime had led to several distortions in the financial system. Resources were allocated inefficiently and monetary control had been a fiasco. The financial sector was characterized by financial repression with negative real deposits and lending rates, rationing of credit, lack of wide range of financial instruments and restricted financial market (Akpokodse 1998). With this, government and monetary authority had no choice than to carry out holistic measures in form of restructuring and reorganization of entire activities of Nigerian Financial Sector. The reforms were basically aimed at repositioning the financial sector of Nigerian economy to accelerate and enhance macroeconomic performance through their various intermediating functions.

The remainder of the paper is structured thus. This introductory section is followed by section two which contains theoretical issues and empirical literature. Section three deals with method and material. Section four discusses on results and their interpretation while section five concludes the paper.

II. SECTION II

In this section, theoretical literature and empirical literature are presented.

Theoretical Issues

There are theories which were propounded by researchers and scholars as regards the relationship between financial system development and economic growth. However, the most famous and recent among these theories are Supply-Leading Theory, Demand-Following Theory, Feedback Relationship Theory and No Causal Relationship Theory.

The Supply Leading Theory was developed by Schumpeter (1911), and later integrated and advanced by Mckinnon (1973) and Shaw (1973). The central focus of this theory is that financial development stimulates economic growth. This is made possible according to the theory because financial sector of the economy mobilizes savings, facilitates exchange of goods and services, generates information and allocates capital and enhances risk management for efficient methods of production. However, the idea of Schumpeter (1911) as regards Supply Leading Theory did not go down well with Robinson, (1952) Greenwood and Jovanovic (1990) and Stiglitz (1994) when they propounded Demand –Following Theory. They were of the opinion that not financial development that causes economic growth but economic growth leads to financial development. In their opinions, they argued that development in the real sector of the economy stimulates demand for financial services that metamorphoses to the establishment of financial intermediaries. According to this theory, economic growth generates an increase in income, consumption and savings and this then brings about demand for financial intermediation. That is, mobilizing resources from surplus sector to the deficit sector. Therefore, the causality that runs between financial development and economic growth is unidirectional. To further advance demand following theory, feedback relationship theory was introduced by Robinson (1950), Berthelemy and Varoudakis (1996). In this new theory, the promoters were of the opinion that causality that runs between economic growth and financial development was bi-directional. That is, financial development stimulates economic growth as economic growth too brings about financial development.

To conclude theories on the relationship between economic growth and financial development, a theory came up “No causal relationship”. The promoters of this particular theory, Lucas (1908) argued that no causality that runs between economic growth and financial development. This theory submits that economic growth is being stimulated by improvement in the real sector of the economy. That is, financial sector development is of no relevant to economy growth in modern economies.

Empirical Literature

Studies have been conducted on the relationship between financial system and its impact on macro economic performance both in developed and developing countries. However, some of these studies are presented here empirically to provide guides and directions to the model of this present study.

Morrisca, (1993), examined the impact of financial liberalization on private investment in some selected developed countries. The study employed simple port folio model of investment as estimation technique. Findings from this study showed that financial liberalization did not significantly improve the private investment in the selected developed countries during the study period. In the same line of study, Green,(1990) conducted several hypotheses to examine the behaviour of private investment in some selected developed countries. The study was descriptive in nature. Finding from this study identified more fundamental relationship between private sector investment and macro-economic variables in selected countries. Also, Shigeyuki et al ,(1984), studied the relationship between financial liberalization and domestic savings in six selected countries. The study tested the common aspects of Mckinnon-Shaw model for Japan, the republic of China, the republic of Korea, Pakistan, Thailand and Turkey. Findings from the study showed that financial restrictions hold domestic savings below the level which occur under a policy of financial liberalization. In another study, Solimano, (1989) examined the reaction of private investment to changes in macro-economic conditions and policies in Chile. Findings from the study showed the major determinants of investment profitability and how its impact on investment. Also, the study equally revealed the relationship between exchange rate and the level of aggregate

profitability of investment in a complex one. Moshi and Kilindo, (1994) examined the effects of government policy on private investment over the period of 1970 and 1993. The study employed ordinary least square as estimation technique. Results obtained showed that the real exchange rate had a negative and significant effect showing the devaluation of currency reduced the profitability of investment in the Tanzanian economy during the study period. Stephen (2013) investigated the relationship between money market and investment in Japan between 1990 and 2010. The study made use of co-integration and error correction as estimation technique. Findings showed that a developed and functioning money market increases investment level during the study period. In the same line of study, Gabriel, (2016), examined the effects of banking sector deregularization on the growth of some selected developed economies. The study employed structural VAR as estimation techniques. Findings revealed that financial deregulation did not really impact growth of the selected economies. To revalidate the above views, Simon Johnson, (2010) used panel co-integration and error correction to investigate the relationship between some structural reforms and economies of some selected developed countries. Findings showed that reforms did not significantly improve the economic performance of the selected countries. Ifionu, (2013) studied the relationship between capital market and macro-economic performance in some selected European countries. The study made use of panel VAR as estimation technique. Finding from this study revealed that capital market significantly improved the macro-economic performance of the selected countries during the study period. In the UK, Lord, (2014) studied the dynamics of investment as a result of banking sector reforms. The study employed (Gmm) as estimation technique. Findings revealed that dynamism recorded in UK economy was due to series of financial sector reforms undertaken during the study, Yalphono, (2016) investigated the macroeconomic performance and banking industries in some selected developed countries. The study made use of panel error correction as estimation technique. Findings revealed that loans from commercial banks have really improved macro-economic performance in those selected countries. Ogunsakin, (2013) examined the impact of financial sector reforms on manufacturing industries in Nigeria. The study employed VAR as estimation technique. Findings from this study showed that financial sector reforms in Nigeria did not improve the performance of manufacturing industries during the study period. Fabayo, (1994) used Mckinnons credit availability approach using domestic credit as a proxy for domestic investments. Findings from this study revealed that irrespective of the level of interest rates, Nigeria still borrow to invest. Also, Kkpo and Egwaikhide, (1998) examined the determinant of private investment in Nigeria with particular emphasis on the effects of the debt service burden. The study made use of data from 1973 and 1993. Their findings supported the debt overhang hypotheses. Baruwa, (2014) investigated the relationship between foreign direct investment and economic growth in Nigeria between 2004 and 2012. The study employed VAR as estimation technique. Findings from the study revealed that the contribution of foreign direct investment to the growth of Nigerian economy was not significant. Bogunjoko, (1998) studied the response of investment to economic policy reforms in Nigeria between 1980 and 1996. The study made use of VAR as estimation technique. Findings showed that the response of investment to policy reforms was negative during the study period. Folorunso and Akinlo, (1999) studied the relationship between oil wealth and private investment and how sensitive to changes in the interest rate in an organized market in Nigeria. The study employed ordinary least square as estimation technique. Findings showed that financial liberalization did not contribute anything significant to the private investment in Nigeria.

From the review of the empirical studies, most of these studies carried out especially in Nigeria were done when most of the economic reforms had not been implemented. Besides, the majority of these studies reviewed seem not to have employed the appropriate estimation techniques. Take for instance, the early studies either used ordinary least square or co-integration. However, the study on financial sector reforms is of short time duration. Therefore, the appropriate estimation technique supposed to be short term estimation technique. To curb this, the present study employed Vector Autoregressive Model to study the relationship among financial sector reforms, investment behaviour and economic growth in Nigeria.

III. SECTION III

This study investigated the relationship among financial sector reforms , investment and output growth in Nigeria between 1990 and 2017. The data for the study, which were quarterly data, were sourced from the statistical bulletin of Central Bank of Nigeria, 2017 edition.

Theoretical Underpinning

There are many theories discussing the relationship among financial system, stock markets and economic growth in the literature. Some of these theories have been mentioned and discussed briefly under theoretical issues. However, AK model which emanates from the Similistic growth model provides foundation for this study. The central team of this theory is that, the stock markets and banks can affect economic growth. King and Levine, (1993), also corroborate this by arguing that stock market and bank services can stimulate economic growth in two major ways. First, improve the allocation of capital by enhancing the productivity of

firm and by making funds available to interested entrepreneurs. This study equally explored the relationship among stock market, banks and input factors of capital accumulation and productivity growth in the growth equation to capture investment. (Mavrotus and Son, 2004). This study may not be able to present this theory mathematically because of limited space.

Model Specification

Following from this theoretical propositions of Pagano, (1993), King and Levine (1993) and findings from empirical literature, equation 3.1 is specified to examine the relationship among the financial sector reforms, investment and economic growth in Nigeria.

$$RGDP_{gr} = \alpha_1 + \alpha_2 IVP + \alpha_3 GDS + \alpha_4 BLM + \alpha_5 AS + \alpha_6 FSRM + \alpha UI$$

Where, $RGDP_{gr}$ represents Gross Domestic Growth Rate, IVP Investment, GDS, Gross Domestic Savings, BLM, Bank Loans to private sector, FST, Financial Share Index, and FSRM represents Financial Sector reforms dummy

The interaction among the variable of interest was done by the Vector Autoregressive Distributive Lag Model (VAR). The data for this study were sourced from Central Bank of Nigeria Bulletin, 2017 Edition.

**IV. SECTION IV
RESULTS PRESENTATION AND DISCUSSION**

Table 4.1: Summary of Unit Root Test Results:

At Level				At First Difference			
Variables	ADF statistics	1% critical value	5% critical value	ADF statistics	1% critical value	5% critical value	Order of integration
GDPgr	-4.479974*	-4.356068	-3.595026	-7.814308*	-4.374307	-3.603202	I(1)
GDS	-0.606750	-4.356068	-3.595026	-6.687944*	-4.374307	-3.603202	I(1)
BLM	-0.221772	-4.356068	-3.595026	-5.806133*	-4.374307	-3.603202	I(1)
ASI	-2.523873	-4.356068	-3.595026	-5.192364*	-4.394309	-3.612199	I(1)
IV	-1.958025	-3.711457	-2.981038	-4.124888*	-3.724070	-2.986225	I(1)
FSR	-0.851631	-3.711457	-2.981038	-5.000000*	-3.724070	-2.986225	I(1)

Note: () connote significance at 1% significant levels respectively*

Source: Author's Computation, (2019)

From the Unit root test result on table 4.1, it showed that all the variables of interest became stationary after first difference I(1). By implication, the unit root test result showed that all the series used in the study only retained innovative shock passed on to them for short period of time after which they let go.

Table 4.2: VAR Lag length selection Result

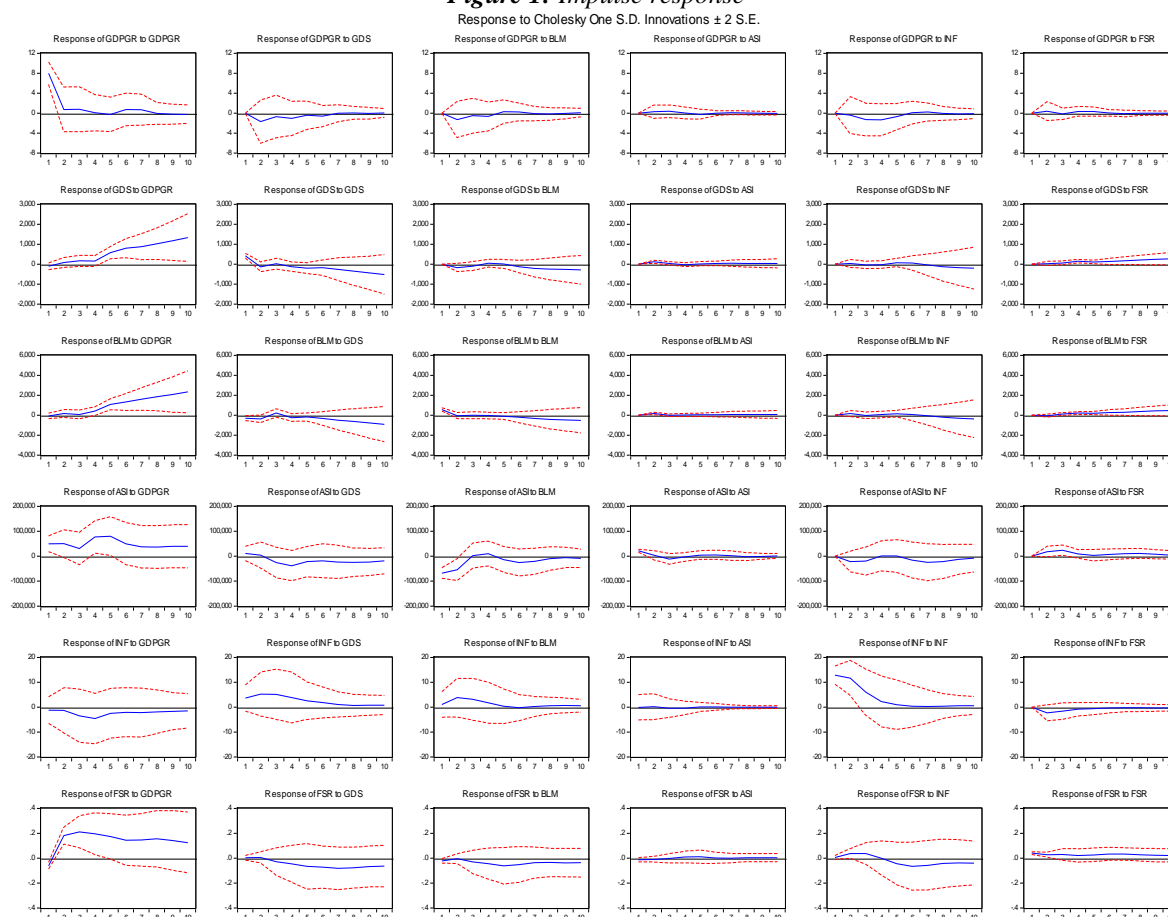
Lag	LR	FPE	AIC	SC	HQ
0	NA	1.15e+26	77.03049	77.32302	77.11163
1	173.6624	1.44e+23	70.26258	72.31029	70.83053
2	81.04916*	5.38e+21*	66.38849*	70.19138*	67.44325*

*Note: * indicates lag order selected by the criterion, LR: sequential modified LR test statistics, FPE: Final prediction error, AIC: Akaike information criterion, SC: Schwarz information criterion and HQ: Hannan-Quinn information criterion*

As shown in table 4. 2, the optimal lag length selection for the VAR estimation is 2, given lowest statistics of 66.38849, 70.19138, 67.44325 reported for Akaike information criterion (AIC), Schwarz information criterion (SC) and Hannan-Quinn information criterion (HQ) for lag 2. Hence, this study estimated VAR with lag length of two.

Since majority of the variables employed in this study are being determined frequently, period of analysis may not be long enough to permit long period estimation technique. This study therefore, made use of Vector Autoregressive Distributive Lag (VAR) to empirically investigate the relationship among financial sector reforms, investment and economic growth rate in Nigeria.

Figure 1: Impulse response



Impulse response functions

This estimation is presented in chart form in figure 1 reflects corresponding response of variables included in the VAR system to one standard deviation shock in the variables of interest. First column of figure 1 reported responses of all the variables to one standard deviation shock in gross domestic product growth rate. Notably, gross domestic product growth rate (GDPgr) responded negatively to one standard deviation shock in itself between periods 1 to 5 penetrating into the negative region, rose slightly into the positive region between period 5 and 7 and later declines into the negative region between period 7 and 10. Gross domestic savings maintained a positive response to one standard deviation shock in GDPgr from period 1 to period 10 moving progressively from the negative region up through to the positive region, with a sharp between period 6 and 10. As presented in the first column of figure 1, a one standard deviation shock inGDPgr lead to a progressive increase in financial share index from the stable state up to the positive region, with a sharp increase from period 6 to period 10. One standard deviation shock in GDPgr lead a decline in financial share index between period one and three, slight increase between period 3 and 5, followed by a decline between period 5 and 10 within the positive region. Investment rate declined slightly between period one and four, and later rose moderately over period 4 and 10 in the negative region. Financial sector reform dummy responded positively to one standard deviation in GDPgr between period 1 and period 3 with a sharp rise from the negative region to the positive region in this period, but declined continuously between period 4 and 10 though within the positive region.

Column 2 reflects response of variables to one standard deviation shock in gross domestic saving. As presented in figure 1, gross domestic product growth rate, gross domestic saving, financial share index, bank loan to private sector and financial sector reform dummy maintained a decline within the negative region, following a one standard deviation shocks in gross domestic saving, while investment rate maintained a decline within the positive region

Responses of variables in the VAR system to one standard deviation shock in bank loan to private sector as presented in the third column of figure 1 revealed that GDPgr declined within the negative region in period 1 and 2, and later rose slightly from the negative region to the positive region in period 2 to 6 after which it maintained and stable state through period 10. Gross domestic saving declined within the first two periods in the negative region, slightly increase between period 3 and 5, and later declined sharply between period 5 and 10. Response of financial institution share index to private sector to impulse in its self is negative falling from the

positive region in period one to the negative region between period 2 and period 10. Financial institution index rose from the negative region to the positive region between period 1 and 4, and later fell back in decline to the negative region between period 4 and 10. Investment rate declined between period 2 and 5 after a slight increase in period 1, and later rose slightly from the stable state between period and 10. Financial sector reforms dummy maintained continuous decline in the negative region between period 2 and 5, increased slightly between periods 5 and 7 and later maintained a steady state in the negative region between period 8 and 10.

One standard deviation shock in financial institution share index led to an increase in gross domestic product growth rate in the first three periods in the positive region and later declined into the negative region between period 3 and 5 after which it maintained a steady trend along the stable state. gross domestic saving responded with an increase within the positive region between period 1 and 2, followed by a sharp decline into the negative region between period 2 and 5, after which there was an increase pulling through to the positive region between periods 5 and 10. Bank loan to private sector rose in the first period, fell between period 2 and 3 and later increased mildly all through between period 4 and 10. investment rate in response to one standard deviation shock to financial institution share index declined mildly within the negative region between period 1 and 3 and later maintained a steady trend between period 5 and 10.

One standard deviation shock in investment rate led to a decline in gross domestic product growth rate from the stable state down to the negative region from period 1 to 3, and later rose slightly above the stable state from period 4 to 7, but fell back to the negative region between period 7 and 10. Response of gross domestic saving to one standard deviation shock in investment rate was stable from 1 to 4, rose a bit from period 4 to 5 and fell sharply into the negative region from period 6 through to period 10. Response of bank loan to private sector reflect a declined period 1 through to period 10, moving from the positive region to the negative region. Financial market index also responded with a decline from the positive region through to the negative region from period 3 to period 10, after a mild increase in period 1 and 2.

In response to one standard deviation shock in bank loan to private sector, gross domestic product growth rate increased slightly between period 1 and 2, fell between periods 2 and 3 and later rose slightly between period 4 and 6 after which it maintained a steady trend around the stable state. In response to one standard deviation shock in bank loan to private sector, both gross domestic savings and financial institution share index increased sharply between period 1 and 10 in the positive region. Investment rate declined sharply in the negative region between period 1 and 2 and rose mildly from period 2 to period 10 but still within the negative region. Financial institution share index increased mildly between period 1 and 2, and maintained a steady decline from period 3 to period 10, but still within the positive region.

Table 3: Summary of Variance decomposition

Variance Decomposition of GDPgr							
Period	S.E.	GDPGR	GDS	BLM	ASI	IVP	FSR
1	7.995963	100.0000	0.000000	0.000000	0.000000	0.000000	0.000000
10	8.896421	83.62986	6.544105	3.337690	0.347135	5.646772	0.494436
Variance Decomposition of GDS							
Period	S.E.	GDPGR	GDS	BLM	ASI	IVP	FSR
1	428.5755	6.364619	93.63538	0.000000	0.000000	0.000000	0.000000
10	2753.460	78.42932	12.48838	4.185306	0.280660	1.360056	3.256277
Variance Decomposition of BLM							
Period	S.E.	GDPGR	GDS	BLM	ASI	IVP	FSR
1	653.4643	1.715444	23.51622	74.76834	0.000000	0.000000	0.000000
10	4859.834	79.05450	11.08994	5.020651	0.183331	1.440016	3.211560
Variance Decomposition of ASI							
Period	S.E.	GDPGR	GDS	BLM	ASI	IVP	FSR
1	87369.19	31.93955	1.502272	60.29673	6.261449	0.000000	0.000000
10	212703.1	58.72872	11.40270	20.11957	1.528177	5.379815	2.841016
Variance Decomposition of IVP							
Period	S.E.	GDPGR	GDS	BLM	ASI	IVP	FSR
1	13.40736	0.892881	7.174013	0.567	0.007761	91.35804	0.000000
10	23.18840	11.60694	17.31681	5.415525	0.074581	63.74898	1.837173
Variance Decomposition of FSR							
Period	S.E.	GDPGR	GDS	BLM	ASI	IVP	FSR
1	0.078219	61.60760	0.074007	8.821582	3.115569	0.545619	25.83562
10	0.570800	76.70841	10.59360	4.763499	0.160088	5.282753	2.491651

SOURCE: Author's Computation (2019)

Variance decomposition: This reflects the contributions of each of the endogenous variable to forecast error variance in the variable of interest. The summary as presented in table 3 revealed the 1st and 10th period contribution of each corresponding variable to forecast error variance of the variable of interest. Notable as

shown in table 3 above, 100% and 83.62% of the forecast error variance in gross domestic product growth rate can be accounted for by itself at period 1 and period 10 respectively, gross domestic savings accounted for 0% at period 1, and 6.54% at period 10, banks loan to private sector accounted for 0% at period 1 and 3.34% at period 10, financial institution share index accounted for 0% at period 1 and 0.35% at period 10, investment accounted for 0% at period 1 and 5.65% at period 10, financial sector reform dummy accounted for 0% at period 1 and 0.49% at period 10.

93.64% and 12.49% of the forecast error variance in gross domestic savings be accounted for by itself at period 1 and period 10, gross domestic product growth rate accounted for 6.36% at period 1, and 78.43% at period 10, bank loan to private sector accounted for 0% at period 1 and 4.19% at period 10, financial institution share index accounted for 0% at period 1 and 0.28% at period 10, investment accounted for 0% at period 1 and 1.36% at period 10, financial sector reform dummy accounted for 0% at period 1 and 3.26% at period 10.

74.77% and 5.02% of the forecast error variance in bank loan to private sector can be accounted for by itself at period 1 and period 10 respectively, gross domestic product growth rate accounted for 1.72% at period 1, and 79.05% at period 10, gross domestic savings accounted for 23.52% at period 1, and 11.09% at period 10, financial institution share index accounted for 0% at period 1 and 0.18% at period 10, investment accounted for 0% at period 1 and 1.44% at period 10, financial sector reform dummy accounted for 0% at period 1 and 3.21% at period 10.

6.26% and 1.53% of the forecast error variance in financial institution share index can be accounted for by itself at period 1 and period 10 respectively, gross domestic product growth rate accounted for 31.94% at period 1, and 58.73% at period 10, gross domestic savings accounted for 1.50% at period 1, and 11.40% at period 10, bank loan to private sector accounted for 60.30% at period 1 and 20.12% at period 10, investment accounted for 0% at period 1 and 5.37% at period 10, financial sector reform dummy accounted for 0% at period 1 and 2.84% at period 10.

91.36% and 63.75% of the forecast error variance in investment rate can be accounted for by itself at period 1 and period 10 respectively, gross domestic product growth rate accounted for 0.89% at period 1, and 11.61% at period 10, gross domestic savings accounted for 7.17% at period 1, and 17.32% at period 10, bank loan to private sector accounted for 1.57% at period 1 and 5.42% at period 10, financial institution share index accounted for 0.01% at period 1 and 0.07% at period 10, financial sector reform dummy accounted for 0% at period 1 and 1.84% at period 10.

25.84% and 2.49% of the forecast error variance in financial sector reform dummy can be accounted for by itself at period 1 and period 10 respectively, gross domestic product growth rate accounted for 61.61% at period 1, and 76.71% at period 10, gross domestic savings accounted for 0.07% at period 1, and 10.59% at period 10, bank loan to private sector accounted for 8.82% at period 1 and 4.76% at period 10, financial institution share index accounted for 3.12% at period 1 and 0.16% at period 10, while investment rate accounted for 0.55% at period 1 and 5.28% at period 10.

Post Estimation Test

Table 4: VAR Residual Serial Correlation Test

Lags	LM-Stat	Prob
1	44.24352	0.1628
2	35.73825	0.4809

Test result presented in table 4 revealed that there is no serial correlation in the VAR residual up to two period lags, given the reported LM-statistics of 44.24352 ($p=0.1628 > 0.05$) for lag 1 and 35.73825 ($p=0.4809 > 0.05$)

Table 5: VAR Residual Heteroscedasticity Test

Chi-sq	Df	Prob.
475.4613	462	0.3226

Test result presented in table 5 confirms that the residual terms of the estimated VAR has constant variance, which implies that the residuals are homoscedastic, given the reported Chi-sq statistics of 475.4613 ($p=0.3226 > 0.05$)

V. Discussion Of Results

In a bid to guide against spurious regression in this study, the variables of interest were subjected to Unit root stationary test. Results showed that the variables of interest were integrated of the same order. This finding is compatible with the result obtained by Simon Johnson (2010) "Investigating the relationship between some structural reforms and economic of some selected developed countries" where all their variables of interest became stationary at first difference and Ifionu (2013) "relationship between capital market and macroeconomic performance", where all their variables of interest became stationary at first difference.

Furthermore, analyses from impulse response function and variance decomposition were done. From impulse response function, unit shocks emanating from financial institution share index has a relatively insignificant effect on both investment and economic growth. Also, shocks emanating from investment have moderate significant effect on real gross domestic product. The bank loan to private sector did not also bring about significant effect on both investment and gross domestic product. This finding is in tandem with the results Ogunsakin, (2013) that bank loan to private sector did not contribute anything significant to the growth of Nigerian economy. Savings bring about positive effect on both investment and gross domestic product. This finding is comparative with result obtained by Solimano, (1989) that savings stimulate both investment and real output growth. The financial sector reforms bring about positive but insignificant effects on both investment and gross domestic product. This finding in line with the result obtained by Olagbenro, (2018) "Financial Sector Reforms and Economic Growth" that financial sector reforms did not contribute significantly to the growth of Nigerian economy during her study period but negate the findings of Dada, (2017), that financial sector reforms in Nigeria bring about marginal effect on the level of productivity in Nigeria.

VI. Summary And Conclusion

This study investigated the relationship among financial sector reforms, private investment and output growth in Nigeria between 1990 and 2017. The study built its model on AK Model which emanates from the Similistic growth model. The study employed Vector Autoregressive Lag as estimation technique. Findings from the study showed that investment and financial sector reforms were part of the determinants of output growth in Nigeria but not significant determinant. Based on this finding, the study therefore concludes that financial sector reforms and private investment did not contribute significantly to the output growth of Nigerian economy during the study period.

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