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PRODUCTION CAPACITY AND GROWTH DYNAMICS: EVIDENCE FROM NIGERIA 1995-2015

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Abstract

This paper examines production capacity and credit to production to assess their impact on economic growth measured by gross fixed capital formation q(GFCF). Using annual data for 1995–2015, a set of structural variables is articulated to model production capacity and growth in Nigeria. The analysis comprises both the short and the long-run estimations using Johansen cointegration test, unrestricted Vector Autoregression (VAR) and vector error correction models (VECM). Variance decomposition (VD) outputs indicate most of the variation experienced by the growth variable is attributable to its own shock. The analysis confirms that the private sector financial constriction index earlier developed and tested for Nigeria to capture incidence of rampant internal round tripping of financial resources deters economic growth significantly. Cointegration analysis of speed of adjustment suggests that 100.8 percent of the deviation of growth from long run equilibrium is corrected every year, so that it takes about a year to cut the gap in half and that 51.9 percent of the deviation of production capacity from long-run equilibrium is corrected every year, so that it takes about a year and half to cut the gap in half. A network of crowding out channels affecting economic growth is also established to include proportion of miscellaneous loans, the proportion of credit to production as well as financial deepening to the private sector which may help explain the current economic recession in Nigeria in 2016. The paper recommends eradication of government policies that promote rent seeking by public officials and the incubation of corrupt practices leading to round tripping of financial resources meant for development. The current attempts by the Nigerian legislature to legitimize "lobbying" is considered not helpful.

Keywords: *Capacity Utilization; Economic Growth; Gross Fixed Capital Formation; Financial Constriction; Credit to Production; Money Laundering.*

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Background to the Study

A Millennium Declaration to achieve eight Millennium Development Goals (MDGs) related to global peace, security and sustainable human development was unanimously adopted in September 2000 as the first collective step taken worldwide "to create an environment which is conducive to development and the elimination of poverty" (UNDP 2007). Progress towards achieving the MDGs was considered to be progress towards human development. These MDGs and targets were to be achieved by the year 2015. Upon series of review of progress by the United Nations (UN-HDR 2005, GSDR 2015), a follow-up post-2015 development agenda adoption of 17 Sustainable Development Goals (SDGs) took place in 2015 with targets to be achieved by the year 2030 - the Agenda 2030.

The paper analyzes the nexus of production capacity and credit to production and its impact on economic growth measured by gross fixed capital formation in Nigeria aimed at drawing policy lessons from the findings. To the extent that production capacity and credit to production are determinants of long-run growth, a robust estimation of what stimulates or hinder them is essential to identify and address related policy issues.

Box 1: Relevant SDGs

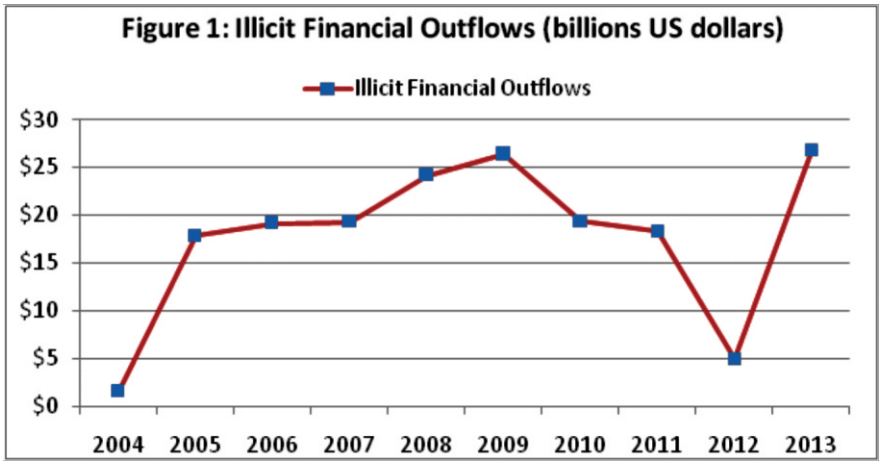
SDG 8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
SDG 9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
SDG 10	Reduce inequality within and among countries
SDG 12	Ensure sustainable consumption and production patterns
SDG 16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Our contribution to the literature on sustainable growth in developing countries is twofold: First, due to limited and poor quality data which is common with developing economies like Nigeria, we employ a VECM based on the general-to-specific approach of Hendry (1995a, 1995b, and 2000). This approach accounts for endogeneity problems and for contemporary and dynamic relations between variables, and it ensures that the data are congruent with the original model. Second, with the use of an indigenous private sector induced financial constriction index, the modeling procedure combines backward-looking analysis with some novel methods and forward-looking outputs to establish the impact of production capacity and credit to production on growth and to stimulate policy discussions. Following from this introduction, Section 2 presents pertinent stylized facts while section 3 briefly describes the theoretical basis and literature review. Section 4 contains the methodology employed while Section 5 discusses the estimation results. Section 6 concludes with some policy recommendations.

Stylized Facts and Background

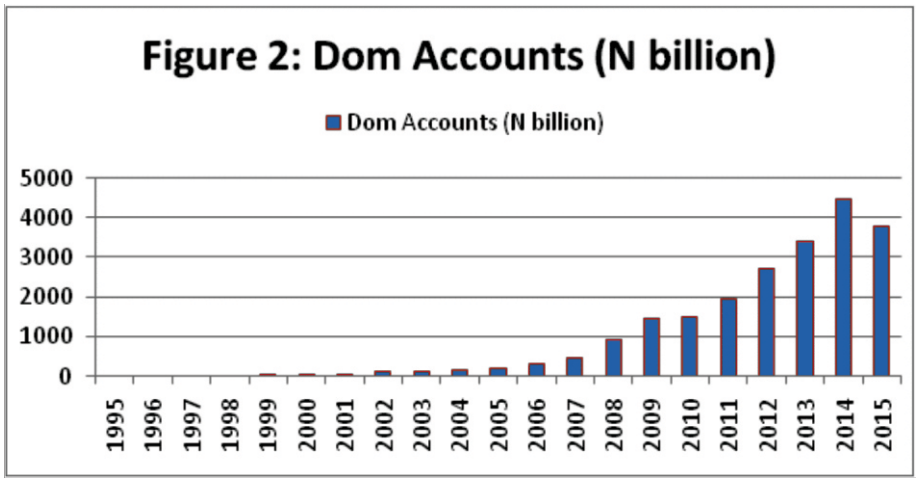
A recent report by the Global Financial Integrity group (2015), rank Nigeria as one of the 10 largest countries for illicit financial flows in the world, estimating about US$17.8 billion of illicit funds go through Nigerian financial system annually and that about $178bn of

Nigeria's wealth had been shipped abroad through money laundering and tax evasion in the last ten years with three prominent peaks in 2008, 2009 and 2013 as shown in Figure1 below.



Source: Global Financial Integrity Report (2015)

On the home front, it is clear from Figure 2 that domiciliary account balances with commercial banks which were previously negligible suddenly shot up and maintained high significance in the past ten years corresponding to the reported illegal outflows. In relation to this, it was reported (Weli 2016) that about $1billion in domiciliary accounts with commercial banks in April 2015 rose by 1,900 percent to over $20billion by March 2016. Tied to this, Weli's report also queried the paradox of Nigeria earning more than it spent from 2008-2015 with calculated surpluses of $393.5billion against Nigeria's reserves of $64.2billion in 2008 that now stand at a paltry $23billion in November 2016.



Source: CBN Statistical Bulletin

This paper believes these developments in growth in domiciliary account balances and reported illegal outflows in the country are very much related.

Some Empirical Literature Review

Theory on Nigeria's Private Sector Financial Constriction Index

A theory on financial constriction in Nigeria was developed to empirically capture the effects of such illegal flows in the economy based on the following ideas:

(a) The private sector locally converts substantial funds meant for production to foreign currencies and lodge such in commercial banks as foreign currency deposits;

(b) Commercial banks divert substantial funds meant for production to miscellaneous loans, a large chunk of which gets converted to foreign currencies and is then lodged in commercial banks as foreign currency deposits;

(c) The first and second activities constitute internal round tripping and are a source of financial constriction to production capacity and/or credit to production; and

(d) Increases in domiciliary account balances in commercial banks that are sizeable and that are not accompanied by contractions of money growth, cause declines in production capacity and/or production.

The developed financial constriction index and its efficacy was tested and found to singly explain 81% of variations in loans to production, 52.6% variations in the capacity utilization rate and 70.3% of variations in gross fixed capital formation -GFCF our growth variable (Ako 2015).

Factors Affecting Production Capacity and Growth

In literature, several factors are determined to affect production capacity including capital stock, prices of materials and capital, energy price, labor price and output in the manufacturing sector; inflation rate, real exchange rate, real loans and advances, ratio of import of manufactures to GDP , ratio of federal government expenditures to GDP and ratio of foreign direct investment on GDP (Salimonu *et al.* 2006; Raimi *et al.* 2009; Simon-Oke and Awoyemi 2010; Mojekwu, and Iwuji 2012; Akpan *et al*. 2013).

Despite copious literature and empirics, there are still disagreements about the concepts, modeling and estimation of growth models since the choice of the growth measure significantly affects results (Adams 2004; De Janvry & Sadoulet 2010; Balakrishnan, Steinberg & Syed 2013). Though most studies use growth in GDP per capita, others have also used GFCF (Akujuobi 2008; Aiyedogbon 2011; Kanu and Nwaimo 2015). From the empirics, several factors determined to affect growth and specifically growth of gross fixed capital formation (GFCF) include capital expenditures, imports and national savings, energy consumption, inflation rate, total banking system credit, military expenditure, foreign exchange rate and debt service ratio.

Methodological Issues

Variable Definitions and Ordering

The model incorporates the endogenous variables GFCF, PCU, CP and explanatory variables FC, PFDS, PML and PCP as defined in Box 2. GFCF is essentially net investment and a component of GDP by expenditure which measures net increase in fixed capital and is employed here as a precise measure of economic development and represents supply factors. The endogenous variables are considered structural variables and the exogenous variables policy instruments. The choice of variables is motivated by both the background discussion above and the findings in the literature. For convenience, the system variables are ordered according to an assumed decrease in exogeneity: private sector financial constriction is assumed to be most exogenous, and GFCF most endogenous. The rationale for the ordering is to facilitate structural factorization in addition to the Cholesky vector autoregressive ordering. Endogenous variables are limited to three to avoid degrees-of-freedom issues given that there are only 21 annual observations.

Box 2: Variable Definitions

Variable	Definition
GFCF	Gross Fixed Capital Formation
PCU	Production Capacity (Percentage Capacity Utilization)
CP	Actual Credit to Production Sector*
FC	Financial Constriction Index**
PFDS	Financial Deepening; Percentage Credit to Private Sector/GDP
PML	Miscellaneous Loans as Percentage of Total Loans
PCP	Loans to Production as Percentage of Total Loans

* Production Sector comprises Agriculture, Manufacturing, Mining and Construction;

** $\frac{\text{Foreign Currency Deposits}}{\text{Nominal GDP}}$

The Model and Modeling Procedure

The empirical model of Vector Autoregression (VAR) and Vector Error Correction Models (VECM) employed in this paper is in the spirit of Engle and Granger (1987), Johansen (1988; 1995), Hendry (1995), Hendry and Juselius (2000), Lutkepohl (2009) and Juselius (2006). The modeling procedure consists of the following estimation steps:

1 Time series analysis and ADF-GLS unit root tests to determine stationarity.

2. Unrestricted VAR specification analysis, including lag length.

3 The VAR based cointegration test methodology developed by Johansen (1991; 1995) and exogeneity tests. This addresses the question of long-run determinants of growth and other system variables.

4. Structural VECM eliminating all insignificant variables. This determines the dynamic adjustment of Error correction system variables toward the long-run equilibrium model (representation) in response to various structural shocks.

5. Variance decomposition (VD) analysis on the basis of step 4. This estimates the relative significance of each random innovation to the system variable if policy does not change and looking ahead.

The attraction of the VECM is that a researcher can insert models of economic equilibrium relations within a fairly rich time-series design that reasonably fit the data and is possible to interpret in economic terms. This is because VECM analysis captures the time lag

needed for initial inputs to contribute to future outputs and addresses endogeneity problems among the system variables. For instance, while the chosen variables may be "free to wander" over time, the variables may be "tied together" in certain ways and a VECM makes it possible to interpret these ties, or *cointegrating vectors*, as representing equilibrium conditions. Hence, the structural VECM approach gives a clearer picture of the relationship between the selected economic variables and dynamic interactions between them.

Data

The analysis uses annual data for 1995–2015 from the Central Bank of Nigeria; National Bureau of Statistics and pertinent derivatives there from.

Empirical Evidence

Series Characteristics

A maximum lag order 2 is selected based on the cube root of the sample size. All the information criteria, AIC, BIC, HQC (Table1) report the same optimal lag to be (2).

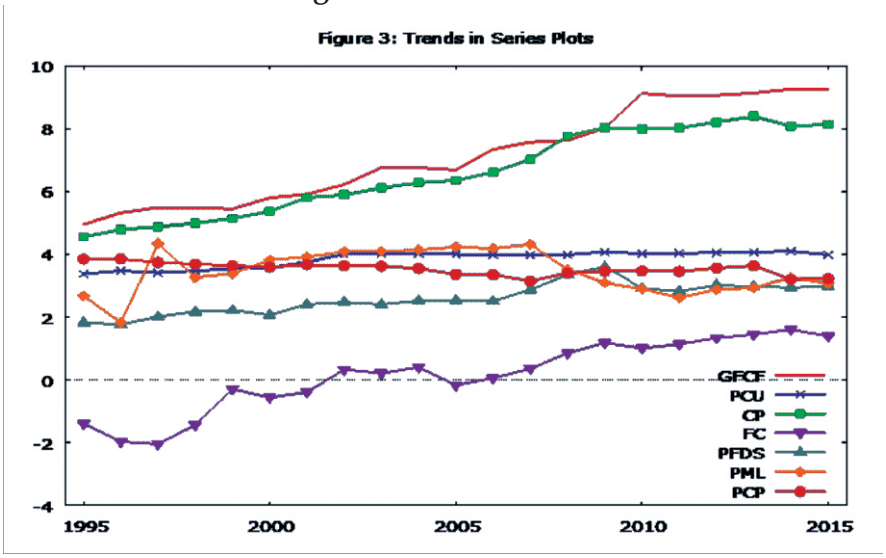
Table 1: VAR system, maximum lag order 2

Lags	Loglik	p(LR)	AIC	BIC	HQC
1	52.40464	-	-2.989962	-1.796987	-2.788063
2	73.47805	0.00000	-4.260847*	-2.620506*	-3.983237*

Where * indicate the best (that is, minimized) values of the respective information criteria, AIC = Akaike criterion, BIC = Schwarz Bayesian criterion and HQC = Hannan-Quinn criterion.

Figure 3 below plots the log form of the series used for this study and indicates multiple trends.

Figure 3: Trends in Series Plot



ADF-GLS Unit Root Test (Perron-Qu Method) Results

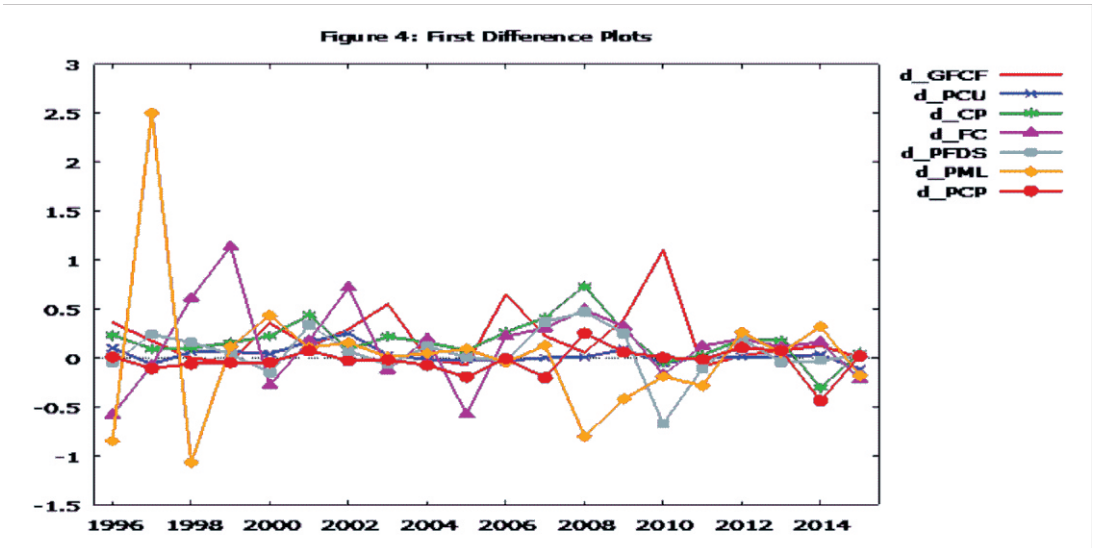
Table 2: Unit Root Test on the Variables

Variable	Test in	ADF-GLS Statistic	Order of Integration
GFCF	Level	-2.46736	I(1)
	First difference	-4.51486***	I(0)
PCU	Level	-1.09598	I(1)
	First difference	-3.48024**	I(0)
CP	Level	-1.23855	I(1)
	First difference	-3.1307*	I(0)
FC	Level	-2.62117	I(1)
	First difference	-4.51829***	I(0)
PFDS	Level	-2.29993	I(1)
	First difference	-4.12109***	I(0)
PML	Level	-2.67143	I(2)
	First difference	-1.70915	I(1)
	Second difference	-9.34324***	I(0)
PCP	Level	-2.60745	I(1)
	First difference	-5.13142***	I(0)

Where:***, **, and * denote rejection of the null hypothesis (unit root) at the 1%, 5% and 10% significance level respectively. Critical values are 10% = -2.89; 5% = -3.19; 1% = -3.77

Unit root test results (Table2 and Figure4) indicate that the economic variables are mostly integrated of order one but PML is integrated of order two being a I(2) process i.e. they are stationary at first difference and second difference.

Figure: 4 First Difference Plots



Johansen Co integration Test Results

Given observations of multiple trends in the series (Figure 3) as well as multiple orders of integration (Table 2 and Figure 4), the Johansen cointegration test is conducted with restricted constant (Case 2) and the results are presented in Table 3 below.

Table 3: Johansen Cointegration Test - Case 2: Restricted constant exogenous regressor(s): FC_1 PFDS_1 PML_1 PCP_1

Rank	Eigen value	Trace Test	p-value	λ-max Test	p-value
0	0.89057	70.438***	[0.0000]	42.037***	[0.0000]
1	0.60800	28.401***	[0.0023]	17.794**	[0.0224]
2	0.42781	10.607**	[0.0252]	10.607**	[0.0253]

Where: *,** and ** denotes 1% and 5% significance level respectively.

The test results establish "multi-cointegration" i.e. there is cointegration between processes of different order of integration. Both the trace and λ-max tests indicate two cointegrating equations or cointegrating vectors at 5 percent. Since the existence of long-run relationship is established, the short-run dynamics of the model can be established within an error correction model.

Weak Exogeneity Test Results

The results of the "weak exogeneity" test based on "Phillips normalization" or "triangular representation" method presented in Table 4 indicate the variables are not weakly exogenous but do adjust to deviations from any of the long-run equilibriums and may not be considered autonomous driving forces of the whole system.

Table 4: Long-run Matrix (alpha * beta')

	GFCF	PCU	CP	Const
GFCF	-1.4690	0.25968	1.8065	0.5134
PCU	-0.08627	-0.53202	0.24556	0.9520
CP	0.39313	-0.12487	-0.59188	5.5184

Vector Error Correction Model (VECM) Results

A VECM is estimated using the full information maximum likelihood (FIML) method of the general-to-specific approach which yields more efficient estimates by eliminating redundant or insignificant variables. As a result, the number of parameter estimates reduced to 7 from 10 for the unrestricted initial VAR system and coefficient estimates improved. Since we observe the series are of multiple trends and orders of integration, we estimate the VECM which incorporates the intercept into the cointegration vector i.e. the "restricted constant" case and the results are reported in Table 5 below. For brevity, the results of the VAR estimation are not presented but are discussed in comparison.

Table 5: **VECM - Maximum Likelihood Estimates Results - Case 2: Restricted Constant**

Parameter/ Variable	**Equation 1** d_GFCF	***p* value**	**Equation 2** d_PCU	***p* value**	**Equation 3** d_CP	***p* value**
d_GFCF_1	0.1194	[0.4883]	0.0322	[0.5001]	−0.108	[0.4623]
d_PCU_1	0.7643	[0.3746]	0.4372*	[0.0861]	0.7122	[0.3322]
d_CP_1	−0.941**	[0.0336]	0.1611	[0.1566]	0.9961**	[0.0123]
FC_1	−0.252**	[0.0267]	0.0410	[0.1558]	−0.034	[0.6826]
PFDS_1	0.1104	[0.7070]	−0.247**	[0.0122]	0.5757**	[0.0411]
PML_1	0.0043	[0.9672]	0.1070***	[0.0043]	0.0450	[0.6159]
PCP_1	0.1497	[0.5433]	0.1344*	[0.0713]	−0.650**	[0.0103]
EC1	−1.008***	[0.0094]	−0.068	[0.4478]	0.8379**	[0.0106]
EC2	0.5691	[0.2740]	−0.519***	[0.0040]	0.1738	[0.6852]
AR	0.2039	[0.6520]	0.0189	[0.8910]	0.3959	[0.5290]
ARCH	0.1722	[0.6782]	0.1493	[0.6992]	0.2643	[0.6072]
Normality	9.4753	[0.1486]	9.4753	[0.1486]	9.4753	[0.1486]
R^2	0.8640	-	0.8090	-	0.8277	-

Where: ***, ****, and * denotes 1%, 5% and 10% significance level respectively; EC1-2 are the error correction terms; 19 observations, optimal lag length = 2; r =2

From the results of the system variables, past growth performance and production capacity positively affect economic growth in Nigeria but the effect on growth is not significant. These findings concur with Kanu and Nwaimo (2015) who observed that the lagged value of GFCF had no significant impact on GFCF in the preceding year. However, the opposite applies when it comes to the long run. This could indicate short run interventions are not deep enough to guarantee long run economic growth which results in general economic decline and shortages in production capacity in the long run. Furthermore, changes in production capacity positively affect all system variables with the impact on production capacity being significant both in the short run and long run. Also, that production capacity is a positive determinant of growth both in the long and short run imply the current almost stagnant level of capacity utilization in Nigeria cannot be expected to drive economic growth and it is understandable why Nigeria is still far from becoming an industrialized nation.

On the other hand, past credit to the production sector positively impact both production capacity and credit to production in the short run with the impact on credit to production being significant but the impact on growth is negative and significant. However, past credit to production positively impacts all system variables in the long run and the impact is significant across board as is expected. Hence, a situation where growth declines in the short run due to past increases in credit to production is an anomaly. This negative co-movement may ordinarily defy economic logic except we factor in the very dynamics inherent in the developed private sector induced financial constriction index for Nigeria which seeks to capture empirical evidence of rampant internal round tripping of financial resources (Ako 2015).

All the exogenous variables have non-significant positive impact on growth in the short run except the financial constriction index which is shown to be a significant negative determinant of growth. The results indicate financial deepening to the private sector (PFDS) impact production capacity negatively in Nigeria both in the short and long run with the short run impact being significant; which is contrary to economic expectations.

In addition, both the short and long run effects of financial constriction (FC) on economic growth (GFCF) are negative which is in line with our theory on private sector financial constriction in Nigeria. There is expected negative co-movement between economic growth and foreign currency deposits (domiciliary account balances) in Nigeria. The size of the effect of financial constriction is significant in the short run for economic growth but not significant in the long run. However, this parameter (FC) seems to have positive co-movement with production capacity both in the long run and short run which is curious and contrary to economic principles but based on our theory, this could indicate the two variables may be linked in the network of round tripping channels that constitute crowding out channels affecting economic growth in Nigeria. Furthermore, although the relationship between financial constriction and credit to production is negative in the short run as expected, it is positive in the long run which is again curious but could indicate evidence commercial banks in Nigeria loan to production from domiciliary account balances in the long run. In addition, the long run relationships between growth (GFCF) and all the exogenous variables are negative contrary to economic expectations except we take into account our theory on round tripping.

Hence, the negative co-movement of financial deepening to the private sector, proportion of miscellaneous loans and the proportion of credit to production sector in tandem with financial constriction indicate that the variables are channels and contribute to the dynamics of the Nigerian index for private sector financial constriction and hence move in tandem with the index against economic growth. The results support earlier results of our theory of internal round tripping (Ako 2015) that established financial constriction has a positive relationship with financial deepening to the private sector whereby increases in money supply to private sector are converted to foreign currencies and lodged in domiciliary accounts with commercial banks; hence the positive co-movement and by implication negative co-movement as in this instance. Consequently, this evidence of crowding out net investment and/or growth in Nigeria both in the short run and long run in the past 20 years may help explain the current deepening economic recession in Nigeria in 2016.

Box 3: Time to Close Adjustment Gap

Following Chiang (1984), the time t needed to close λ percent of the gap (or half-life $\lambda = 0.5$) is derived from the relationship:

$$t = -\frac{\ln(1-\lambda)}{\alpha};\ \alpha = 1.008;$$
$$\lambda = 0.5 \therefore t = 0.688\ for\ growth$$

$$t = -\frac{\ln(1-\lambda)}{\alpha};\ \alpha = 0.519;$$
$$\lambda = 0.5 \therefore t = 1.335\ for\ capacity$$

Where: λ = the adjustment ratio
α = is the estimated loading parameter or speed of adjustment parameter.

The result indicates both equations one (economic growth) and equation two (production capacity) are significant at 1 percent and their coefficient of Error Correction Term (EC1 & EC2) are negative as required, indicating the existence of dynamic stability. The speeds of adjustment suggests 100.8 percent of the deviation of growth from long-run equilibrium is corrected every year, so that it takes about a year to cut the gap in half and that 51.9 percent of the deviation of production capacity from long-run equilibrium is corrected every year, so that it takes about a year and half to cut the gap in half.

Serial autocorrelation and heteroscedasticity is absent implying data is independently distributed. The residuals are normally distributed without an ARCH effect in all equations which allows for valid inference. R^2 is above 80% for all three equations.

Variance Decomposition

Table 6A: Decomposition of Variance for GFCF

Period	std. Error	GFCF	PCU	CP
1	0.132425	100.0000	0.0000	0.0000
2	0.146383	83.4459	14.1587	2.3954
3	0.247627	49.6242	15.9431	34.4328
4	0.372079	61.7014	13.4588	24.8398
5	0.413252	63.3113	16.3395	20.3491
6	0.437356	59.3294	18.7093	21.9613
7	0.515881	57.5081	15.6837	26.8082
8	0.582829	63.6577	13.7832	22.5591
9	0.595137	63.7511	14.6132	21.6357
10	0.615038	61.1360	14.8775	23.9866

Table 6B: Decomposition of Variance for PCU

Period	std. Error	GFCF	PCU	CP
1	0.0367307	8.6550	91.3450	0.0000
2	0.0667182	5.5188	71.1518	23.3294
3	0.103502	29.6089	44.3200	26.0711
4	0.121506	41.2368	38.4115	20.3517
5	0.125477	41.6693	38.7171	19.6137
6	0.133607	41.7203	35.0482	23.2315
7	0.146556	48.4534	29.4816	22.0651
8	0.149909	50.3070	28.5139	21.1791
9	0.150501	49.9395	28.7147	21.3458
10	0.158149	49.2068	26.4631	24.3301

Table 6C: Decomposition of Variance for CP

Period	std. Error	GFCF	PCU	CP
1	0.112483	36.3946	7.4862	56.1192
2	0.20313	60.9320	10.0570	29.0110
3	0.236473	61.6689	16.2822	22.0488
4	0.263323	55.0872	20.5469	24.3659
5	0.330905	54.5572	16.9208	28.5220
6	0.38407	61.7223	14.9867	23.2911
7	0.396731	62.0083	16.0459	21.9458
8	0.41575	59.3720	16.1442	24.4837
9	0.465225	60.9018	13.9836	25.1146
10	0.49194	63.7921	13.5577	22.6502

The results of the Forecast Error Variance Decomposition (FEVD) in Tables 6A-C indicate that in the period right after a shock, economic growth in Nigeria (GFCF) explains 100 percent of its own shocks, production capacity (PCU) about 91 percent of its own and credit to production (CP) about 56 percent of its own. The fact that their movements are largely explained by past values indicates they have a significant lagged effect but the lagged effect on growth and production capacity seems more absolute. Own shock has the strongest and most lasting effect on economic growth although after period 2, the contribution of credit to production to economic growth also appears significant and lasting. The results indicate a shock to GFCF growth has the strongest and most lasting effect on both production capacity and credit to production.

Conclusion

Annual data for 1995–2015 and a set of articulated structural variables are employed to model production capacity and growth in Nigeria. The analysis comprises both the short and the long-run estimations using Johansen cointegration test, unrestricted VAR and VECM. Cointegration analysis of speed of adjustment suggests that 100.8 percent of the deviation of growth from long run equilibrium is corrected every year, so that it takes about a year to cut the gap in half and that 51.9 percent of the deviation of production capacity from long-run equilibrium is corrected every year, so that it takes about a year and half to cut the gap in half. Variance decomposition outputs indicate most of the variation experienced by the growth variable is attributable to its own shock.

The analysis confirms that the private sector financial constriction index earlier developed and tested for Nigeria to capture incidence of rampant internal round tripping of financial resources deters economic growth significantly. A network of crowding out channels affecting economic growth and seemingly tied to this financial constriction index is also established to include proportion of miscellaneous loans, the proportion of credit to production as well as financial deepening to the private sector.

Production capacity is a positive determinant of growth both in the long and short run implying the current almost stagnant level of capacity utilization in Nigeria cannot be expected to drive economic growth and it is understandable why Nigeria is still far from

becoming an industrialized nation. These results indicate short run interventions are not deep enough to guarantee long run economic growth which results in general economic decline and shortages in production capacity in the long run. Evidence suggest commercial banks in Nigeria loan to production from domiciliary account balances in the long run.. There is evidence of crowding out net investment in Nigeria both in the short run and long run which may help explain the current economic recession in Nigeria in 2016.

Recommendations

The strategy to transform the Nigerian space in line with the 2030 agenda for sustainable development would require policy measures that help accelerate growth and improve resource efficiency in production. Such policies should:

1. Support maintenance of production capacity at a minimum of 70% of available capacity as this has salutary effects on economic growth, sustainable development as well as full and productive employment.
2. Improve the proportion of credit to production by increasing the credit limits proportionally given the strong salutary effects on both GFCF growth and production capacity established by the study.
3. Improve the regulation and monitoring of domestic financial institutions and strengthen the implementation of such regulations to stamp out illicit financial flows in the form of round tripping.
4. Eradicate government policies that promote rent seeking by public officials and the incubation of corrupt practices leading to round tripping of financial resources meant for development. In this respect, recent haste by the national legislature to legitimize "lobbying" in Nigeria is not considered helpful given the preponderance of avenues for corrupt practices already strangling sustainable development; some of which are traceable to the legislature.

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