

Fiscal Decentralization and Economic Growth in Nigeria: A Re-examination

by

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Abstract

This study sought to empirically examine the relationship between fiscal decentralization and economic growth in Nigeria and to see if the reverse holds for Nigeria as found by other scholars for countries and regions around the world. It achieved this by re-examining fiscal-decentralization-economic-growth interaction in Nigeria, using fiscal disaggregated data. It employed basic OLS and Error Correction Mechanism (ECM). It was found, amongst other issues, that fiscal decentralization does not directly impact on economic growth, but the positives of decentralization could be transmitted through efficient economic management process, which may be a product of effectively-managed fiscal decentralization processes.

Key words: Fiscal Decentralization, Economic Growth, ECM

JEL Classification: H₂, H₃, H₅, H₇

1) Introduction

The preoccupation of every nation is to improve on the efficiency in the delivery of public goods. In a federation, the central question revolves around which level of government is better equipped to undertake provision of a particular public good. Fiscal decentralization entails the devolution of powers on fiscal matters from the central government to the sub-national governments. It requires increasing the relative autonomy for revenue and expenditure by the federating units. The main issues of concern in fiscal decentralization and economic growth are tax jurisdictions, expenditure responsibilities and resource allocation.

There has also been an increasing interest amongst researchers on the prospects of fiscal decentralization in facilitating economic growth, but overall, the literature on fiscal decentralization, especially in the context of development, is still in its budding stages (Bardhan, 2002; Rodriguez-Pose and Kraijer, 2009).

There are two fundamental arguments in favour of fiscal decentralization: First, population mobility across localities ensures a better matching of preferences between local

governments and local communities, which makes the devolution of resources to regional and local governments apt in getting closer to the need of the people (Tiebout, 1956). Second, the advantage of being in close proximity to the final consumers enables local governments to have information advantage and achieve a more efficient delivery of public goods (Klugman, 1994). Thus, in recent times, the traditional theories advocating for devolution of resources and power to the lower levels have been enhanced, though challenged in some quarters, and the weaknesses of fiscal decentralization highlighted.

Nigeria's 1999 constitution (as amended), provides for expenditure responsibilities on defense, foreign affairs, international trade (including export marking), currency, banking, borrowing, exchange control, use of water resources, shipping and federal trunk roads. Others include, expenditure on elections, aviation, railways, postal services, police and other security services. The centre also controls the regulation of labour, interstate commerce, telecommunications, immigration, mines and minerals, nuclear energy, citizenship and naturalization rights and social security. Insurance, national statistics system, guidelines and basis for minimum education, business registration, and price control are all included in the exclusive list to be controlled by the central government.

Despite such concentration of responsibility at the centre, the federal government still shares major assigned expenditure with the state government. These include expenditure on health, social welfare, education (post primary/tertiary), culture, antiquities, statistics, stamp duties, commerce, industry, electricity (general, transmission, distribution), and research surveys, aside residual power or responsibility that the state handles alone. For the local government, the responsibilities are that of economic planning and development, health services, land use, control and regulation of advisements, pets, small business, markets, public conveniences, social welfare, sewage and refuse disposal, registration of births, deaths and marriages. Others include primary, adult and vocational education, development of agriculture and natural resources.

The perceptible feature of the recent state of the fiscal decentralization literature is the scantiness of empirical evidence regarding the effects of decentralization, not only on economic growth, but also on the traditional objectives of economic efficiency, income distribution, and macroeconomic stability (Martinez-Vazquez and McNab, 2001). However, it has been documented in the literature that the impact of fiscal decentralization in fostering economic growth is deepened on the developed economies than it is on the developing economies (Bahl and Linn, 1992). This correlation between economic development and the depth of decentralization may also be due to the fact that many developing countries inherited highly centralized systems at the time of their independence from their colonial powers (see Conyers, 1990 and Martinez-Vazquez and McNab, 2001).

Zhang and Zou (1998) found a negative relation between decentralization and economic growth for China in the post reform era. Others with similar results include Baskaran and Feld (2009), Rodriguez-Pose and Ezcurra (2011), Gemmell, Kneller and Sanz (2013) and Szarowska (2015) for the European Union from 1995 to 2012. For Nigeria, Aigbokhan (1999); Udah and Ndiyo (2011), and recently, Udoh, Afangideh and Udeaja (2015) have equally found a negative relationship between fiscal decentralization and economic growth, as well as efficiency in service provision.

Martinez-Vazquez and McNab (2001) argued that traditionally, both theory and practice of fiscal decentralization has given peripheral attention to its capacity to foster economic growth, except in recent times where normative discussions of fiscal decentralization added economic growth to the traditional list of public finance objectives

of efficiency in the allocation of resources, horizontal fiscal imbalances, and economic stabilization. This they attributed to the lack of theoretical underpinnings, required to give strength to empirical findings. They concluded that fiscal decentralization may indeed have a direct impact on economic growth but the theoretical grounds for this relationship remain largely undeveloped. The absence of an adequate theoretical framework has undermined the validity of the empirical work on this subject. However, some scholars have concluded that, the traditional argument for fiscal decentralization is that it may provide greater economic efficiency in the allocation of resources in the public sector (see for example, Oates, 1972; Boadway and Wildasin, 1984).

Fisman and Gatti (2002), analyzed the relationship between decentralization and the extent of rent extraction by private parties, with findings suggesting a strong negative relationship between expenditure decentralization and corruption; Rodden (2002), highlighting the importance of self-autonomy in subnational governments and found that long-term balanced budgets among subnational governments may likely result when (1) the central government imposes borrowing restrictions or (2) when subnational governments have both wide-ranging taxing and borrowing autonomy. Faguet (2004), focusing on Bolivia, examined whether decentralization increases the responsiveness of public investment to local needs; Weitz-Shapiro (2008), showed that in Argentina there is a significant positive relationship between local government performance and citizen system support.

Rodriguez-Pose and Gill (2003), in furtherance of the argument, held that in developing countries (e.g. Brazil) subnational governments indulging in fiscal profligacy accumulated significant deficits and resorted to the central government to bail them out. Illner (1999), arguing from the perspective of corruption found that monitoring of public bureaucrats is difficult and accountability hard to enforce in low-income countries which increases the likelihood of corruption and opportunistic behaviour. In a related development, Thiessen (2003) found an inverted U-shaped non-linear relation between fiscal decentralization and growth, and argues that negative effects of decentralization will take over beyond an optimum level.

Recent studies have reiterated three major concerns in the economics literature from the perspective of fiscal decentralization. The first refers to the issue of adjustments in governance. It concerns how governance is affected by devolving revenue and expenditure powers to regional institutions (i.e., state, municipal, and local governments). Works in this direction include Arzaghi and Henderson (2005); de Mello and Barenstein (2001); Altunbas and Thornton (2012); Kyriacou et al. (2015). Country-specific studies include Mohapatra (2012) analyzing India; Shen et al. (2012) for China; and Balunywa et al. (2014) in Uganda. The second concern has to do with how fiscal decentralization affects economic growth, and by extension, economic stability (the major focus of this study). The major contributions in this regard included the works of Davoodi and Zou (1998); Rodden et al. (2003); Martínez-Vázquez and McNab (2003, 2006); Thornton (2007); Neyapti (2010); Rodríguez-Pose and Ezcurra (2011); Gemmell et al. (2013); Blöchliger (2013). Country-based studies included Yifu Lin and Liu (2000) on China, Xie et al. (1999) for the United States, and Samimi et al. (2010) for Iran; Onwioduokit and Obiora (2007) and Onwioduokit and Esu (2018) for Nigeria.

The ways in which fiscal decentralization affects poverty, inequality, and wealth redistribution has also received significant consideration. The main contributions in these areas were that of Boex et al. (2006); Sepúlveda and Martínez-Vázquez (2011); Goerl and

Seiferling (2014); Sacchi and Salotti (2014). For country-specific studies, a sample of contributions included Francis and James (2003) focusing on Uganda, Song (2013) on China, and Zakaria (2013) on Indonesia.

One fact stands out from the review so far, and that is the fact that there is paucity of literature in this area of interest as it concerns Sub-Saharan Africa, and very insignificant as regards country-specific in Nigeria, except for the works of Ekpo and Ndebbio (1991); Ekpo and Ndebbio (1998); Aigbokhan (1999); Eboh (2009), that focused more on the traditional issues of fiscal federalism, and recently Onwioduokit and Obiora (2007); Udah and Ndiyo (2011); Udoh and Onwioduokit and Esu (2018), that focused on fiscal decentralization and economic Growth. Their findings however, showed a negative effect of fiscal decentralization on human resource development, and the promotion of inefficiency in the provision of public good. This obvious gap and our quest to probe for new evidences, form part of our motivation to carrying on this study to examine what the case is in terms of fiscal-decentralization-growth nexus for Nigeria, at the time where the country's economy seems to be very volatile.

Fiscal decentralization is predicated on four major fiscal operational channels, namely: revenue assignment, expenditure assignment, intergovernmental transfers/grant designs and borrowing. In Nigeria, the bulk of the revenue that accrues to the subnational governments comes from the centre. This is because the critical mass of revenue-generating structures is assigned to the national government, with the subnational government being left with little, hence the fiscal dependence on the centre.

2) Objectives of the Study

Theoretically, a federal system is characterized by decentralization. The problem, therefore, shows in this big question: with the skewed distribution of the expenditure responsibilities, can fiscal federalism impact positively on output growth in Nigeria? Our pursuit in this paper, therefore, is to empirically examine the effectiveness of fiscal decentralization vis-à-vis its impact on the growth of the Nigerian economy.

3) Materials and Methods

This study utilized the Endogenous Growth Theory. The application of endogenous growth theory became popular from the works of Moosa (2002), Devarajan et al. (1996). However, amongst the pioneer contributions in its original perspective was the work of Barro (1990). "Barro made use of the endogenous growth model to find a linkage between public revenues, spending and economic growth" (Esu and Udonwa, 2015). This foundation informed our attempt to establish the fiscal-decentralization-economic-growth linkage for this study since the study assumes that growth is influenced by policy variables other than technical relationship between labour and capital. Interestingly, what had become the Barro model was earlier extended by Ram (1986) into two-sector production model and applied by Chen and Lee (2005).

Ram's extension of the model has the property of flexibility to accommodate policy variables in the growth analysis of developing countries. Therefore, our model assumes that the output (Y) is produced by two sectors of the economy: the government sector (G) and the non-government sector (N). We assumed that the output in the government sector (government spending) has an externality effect on output in the non-government sector – this is captured in the model as resource allocation policy of the government (R); and in addition, we also assumed that the output from each sector depends only on labour (L) and

capital (K) inputs, then the production function for both sectors could be explained as follows:

$$N = (L_n, K_n, R_g) \quad (1)$$

$$G = (L_g, K_g) \quad (2)$$

$$Y = N + G \quad (3)$$

$$L = L_n + L_g \quad (3a)$$

$$K = K_n + K_g \quad (3b)$$

where equations 3a and 3b represent the total inputs from both sectors. Therefore, total output function becomes:

$$Y = (L, K, R_g) \quad (4)$$

Assuming that the government resources (G), are allocated to the three tiers of government – federal (F), state (S) and local (L); then

$$G = F + S + L \quad (5)$$

Equations (5) provides a statement of allocation to national and subnational governments; and if X denotes subnational government, therefore

$$X = S + L \quad (6)$$

Equation (6) represent fiscal decentralization, but is subsumed in (5), while (5) is imbedded in (4) respectively. Equation (4) becomes our baseline equation, which the R_g component will be unbundled subsequently. Levine and Renelt (1992); Woller and Phillips (1998) and RodriguezPose and Krøijer (2009) corroborated this approach.

2.1 Model Specification and Estimation Technique

Given the factor input components of equation (4), we remodeled equation (4) as a Cobb-Douglas production function thus:

$$y = (L^{\delta^1} K^{\delta^2} A) \quad (7)$$

Where y is the Real GDP growth rate; L is labour; K is capital – which is split into human and physical capital and A is the total factor productivity (TFP), which is regarded as efficiency parameter. The model assumes implicitly that exogenous variables are instrumental to the establishment of the behavior of the TFP component of the model (Bhagwati, 1978; Edwards, 1998; Esu and Udonwa, 2015). The TFP is therefore structured as:

$$A = (R_g, \rho) \quad (8a)$$

$$R_g = (D) \quad (8b)$$

Where D is the share of total government expenditures to tiers of government, respectively. $\ln F$ is inflation which is expected to control for macroeconomic stability in the model. However, ρ is the vector of some control variables which, in most economic growth studies, have been found to interact positively and significantly (Udah and Ndiyo, 2011; Udoh, and Onwioduokit and Esu, 2018). They are investment (I) (ratio of investment to GDP); population growth rate and trade openness.

Equations 7, 8a and 8b can therefore be expressed as a linearized composite function by taking the log of the both sides thus:

$$\ln Y_t = \ln L + \ln K^h + \ln K^p + \ln D + \ln F + \rho \quad (9)$$

Where $\ln K^h$ and $\ln K^p$ represent human and physical capital respectively. To be amendable for OLS estimation, the econometric form of equation (9) is restated thus:

$$\ln Y_t = \delta_0 + \delta_1 \ln L_t + \delta_2 \ln K_t^h + \delta_3 \ln K_t^p + \delta_5 \ln D_t^F + \delta_6 \ln F_t + \rho + \xi_t \quad (10)$$

Where δ_0 is the constant parameter, ξ_t represents the stochastic error term and rest of the variables are as were earlier defined. The δ_i are elasticities of the above defined variables and a priori signs are expected to be positive but indeterminate in the case of inflation. Equation 10 represents the federal government structure, while equations 11 and 12 checks for state and local government contributions, respectively (that is the fiscal decentralization measures in the model).

$$\ln Y_t = \delta_0 + \delta_1 \ln L_t + \delta_2 \ln K_t^h + \delta_3 \ln K_t^p + \delta_5 \ln D_t^s + \delta_6 \ln F_t + \rho + \sigma_t \quad (11)$$

Where superscripts in $\delta_5 \ln D_t^s$ represents the states' contributions of the variables as described earlier.

$$\ln Y_t = \delta_0 + \delta_1 \ln L_t + \delta_2 \ln K_t^h + \delta_3 \ln K_t^p + \delta_5 \ln D_t^L + \delta_6 \ln F_t + \rho + \mu_t \quad (12)$$

Where superscript in $\ln D_t^L$ represents the local governments' contributions of the variables as earlier described.

The time series properties of all the variables in the model, using Augmented Dickey-Fuller (ADF) and Phillip-Perron unit root tests were examined. Also, Johansen Cointegration test technique was adopted to ascertain whether variables are cointegrated, while Error Correction Model (ECM) was adopted to correct for the speed of adjustment of the dependent variable to short-run dynamics of the other variables, *ceteris paribus*. Thus, the ECM is stated thus:

$$[\delta_n R_t = \sigma_1 + \sum_{i=2}^r \sigma_i \delta_n z_t - (\lambda ECM_{t-i} + V_{6t})] \quad (13)$$

Where $-\lambda ECM$ is the error correction mechanism, $-\lambda$ is the magnitude of error corrected each period specified in it's a priori form, so as to restore $\delta_n \ln Y_t$ to equilibrium.

4) Results and Discussion

5.1. Data Diagnostics

The summary statistics of the data used in this paper is presented in Table A in the appendix. The variables of interest have very robust mean. For example, GDPGR has the mean of about 3.410 with its distribution within the minimum and maximum limits of 33.736 and -13.128 respectively. The standard deviation stood within range of about 7.421, with skewness of 1.290 and kurtosis of about 9.176 and J-B statistics of 70.941, significant at 1per cent level. These statistics show the level of stability of the variable and its distribution over the time trend considered in this work. On the other hand, the correlation matrix presents a mix result, though not out of place. Apart from the inflation, whose negative correlation with economic growth may have been expected, the major decentralization measures in the models reflected negative interaction with economic growth. FGTEXP and SGTEXP were all negatively correlated with GDPGR, except LGTEXP that reflected a positive correlation. As a preliminary finding, these outcomes seemingly support a strand of existing argument in the literature that decentralization may not directly result in economic growth, *ceteris paribus*.

On the other hand, the unit root test results are presented in Table 1. The results indicate that apart from GDPGR, OPN and PHCAP which were stationary at levels [I(0)] and at first difference [I(1)], and POPGR that was stationary only at levels [I(0)], other variables in the model were stationary at first difference [I(0)] only. The test statistic employed was Augmented Dickey-Fuller (ADF) and the stationarities were at 1per cent, 5.0 per cent and 10.0 per cent level of significance respectively, and the evaluation was based on their P-values. These informed our decision to investigate the existence or otherwise of cointegration among the variables. Table 2 reports the Johansen Cointegration

test results. All the variables in the model were cointegrated. This outcome informed our rejection of the null hypothesis – of no cointegration – using the trace statistic.

Table 1: Unit Root Test Result

Variables (some in log)	ADF Levels	ADF 1st Diff.
GDPGR	-5.0550**	-8.9336*
FGTEXP	-1.3122	-4.8941**
SGTEXP	-1.3761	-4.2391**
LGTEXP	-2.1275	-4.2026***
INF	-3.0271	-3.3545***
POPGR	-4.9437**	-2.7717
OPN	-4.9348	-4.1765***
PHCAP	-5.9992*	-9.3874*
HMCAP	-0.2766	-3.5065***
LAB	-2.3800	-7.0807*

Computed by the author, using E-Views 10. *, **, *** represent 1per cent, 5per cent, and 10per cent level of significance

Table 2: Johansen Hypothesized Cointegrating Relations

Null Hypothesis	Alternative Hypothesis	Eigen Value	Trace Statistic	Critical Value	Prob.** Value
$R \leq 0^*$	$R = 1$	0.6920	95.685	69.819	0.000
$R \leq 1^*$	$R = 2$	0.4763	56.819	47.856	0.005
$R \leq 2^*$	$R = 3$	0.4081	35.476	29.797	0.009
$R \leq 3^*$	$R = 4$	0.2967	18.173	15.494	0.019
$R \leq 4^*$	$R = 5$	0.1802	6.557	3.841	0.010
$R \leq 5^*$	$R = 6$	0.1541	6.722	3.741	0.001
$R \leq 6^*$	$R = 7$	0.1451	5.842	2.624	0.010
$R \leq 7^*$	$R = 8$	0.4652	4.851	2.728	0.001
$R \leq 8^*$	$R = 9$	0.4343	3.641	1.481	0.011

Trace test indicates 12 cointegrating equations 5per cent level of significance. * Indicates rejection of the null hypothesis at 5per cent significant level and ** is the MacKinnon- Haug- Michelis (1999) p-values.

The implication of this outcome is that there is the existence of long run equilibrium relationship among the variables, thereby underlining the need for a short run dynamic adjustment under the error correction framework. This is because, as it is conventional in modern econometrics literature, the existence of a long run relationship gives the impetus for assessing short run distortions embedded in the equilibrium relationship. Also, it is economics to understand that for every long run equilibrium interaction there is a short run distortion (disequilibrium). The short run error correction estimates are reported in Table 3.

5.2 Models Estimates

The results presented in Table 3 are from the estimation of equations 10, 11 and 12 in the light of equation 13. The model helps to highlight the distortions in the long run equilibrium interactions caused by shocks in the model as well as the time required for such disequilibrium to adjust to long run equilibrium. The results provide clues that, though there

are potentials for growth in decentralizing fiscal operations, it may not readily provide direct interaction with economic growth.

Broadly, the ECM term, for the three models, aligns with theoretical sign significantly, indicating the fact that the speed of adjustment is reasonably fast. The three models show the speed of adjustment to long-run to the tune of 105per cent, 93per cent and 103per cent, respectively. The adjusted coefficient of determination (adj. R^2) indicates that about 56 percent, 54 percent and 75 percent variation in the real GDP growth rate (economic growth) in Nigeria, is jointly explained by the fiscal decentralization variables and other explanatory variables in the model. This underlines the fact that the model adequately explains the fiscal-decentralization-economic-growth relationship, given the interactions among those variables of interest. The F-statistic shows the overall significance of the modelled estimates, and this is indicative of a good fit. The Durbin-Watson (D-W) statistic has really stressed, to a reasonable extent, the absence of partial serial correlation in the model, the values stood at 1.87, 1.89 and 1.88. Jarque-Berra (J-B) F-statistic indicated a statistically insignificant situation, implying that the estimated residuals are normally distributed.

Table 3: Short-Run Adjustment Models Estimates

Dependent Variables: Economic Growth [GDP Growth Rate (GDPGR)]			
Regressors	Central Govt.	State Govt.	Local Govt.
Federal Govt. Total Expenditure (FGTEXP)	-3.363		
State Govt. Total Expenditure (SGTEXP)		1.516	
Local Govt. Total Expenditure (LGTEXP)			-9.717
Labour Participation rate (LAB)	1.627	1.060	-51.424**
Physical Capital (PHCAP)	-0.031	-0.027	-0.057
Human Capital (HMCAP)	3.695***	2.967***	-2.359
Inflation (INF)	-0.082	-0.080	-0.188
Trade Openness (OPN)	0.008	0.004	0.003
Population Growth Rate (POPGR)	-33.199	-36.317	14.724
ECM	-1.005*	-0.932*	-1.354*
Adj. R^2	0.56	0.54	0.75
F – Statistic (Prob.)	3.883(0.002)**	3.529(0.005)**	5.146(0.002)**
D-W Statistic	1.87	1.89	1.88
J-B Statistic (Prob.)	1.82(0.241)	3.46(0.914)	2.33(0.107)

Computed by the author using E-views 10. ** and *** indicate significance at 5per cent and 10per cent level respectively.

A closer look at the estimates presented in Table 3 present facts for critical reflections. All through the models, the basic fiscal decentralization variables reflected a mix outcome. The expenditure coefficients reflected mixed signs and were statistically insignificant. They were -3.363, 1.516 and -9.717 for central, regional and local governments respectively. The theoretical expectation, primarily, is that expenditure should boost economic activity, implying positive interaction with economic growth. The mixed signs, therefore, and the statistical insignificance of the coefficients could be attributed to mismanagement of funds, misguided implementation of policy processes,

fiscal deficits, high rate of discomfort index, all summarized as corruption in project execution and policy implementation process.

One discovery that stands out is the fact that of all other variables in the models, human capital (HMCAP) indicated a positive and significant interaction with economic growth for both central and subnational, but local jurisdictions. The coefficients were 3.695, 2.967 and -2.359 respectively. This shows that a viable and equipped human capital will certainly contribute to efficiency in economic activity that will lead to economic growth, *ceteris paribus*. The deviance in the case of local government - though may be a reflection of the attention given to human capital development at that level of governance - can be attributed to the inadequacies associated with time series data, the much efforts done to clean them notwithstanding. On the other hand, physical capital has shown a negative and insignificant impact on economic growth for the three levels of fiscal decentralization considered in this study.

The coefficients were -0.031, -0.027 and -0.057, showing a 3.1 per cent, 2.7 per cent and 5.7 percent respectively, drop in economic progress as 1 per cent more investment in physical capital is done within the levels of fiscal decentralization examined in this paper. This is opposed to theoretical expectations and may be unconnected from the unwholesome practices in corporate and public investment processes. These practices could range from project abandonment, inflation of project costs, to outright embezzlement of resources meant for developmental programmes. Lopsidedness in project distribution as well as that of other expenditure spread could be another matter for consideration. This means that distributing projects based on political, ethnic or tribal sentiments, rather than economic potentials, opportunities and possibilities, could lead to undesirable outcomes, hence the need for re-engineering.

However, labour, inflation, trade openness and population growth rate reflected different direction of interactions with economic growth, with one common behaviour: they were all statistically insignificant, except labour in the case of model 3 (local government equation). The parameter estimates for labour show that 1 per cent growth in labour input would have improved the economy of the central and subnational governments to about 1.6 per cent and 1.0 per cent, but results in humongous drop in economic growth of about 51.4 percent in the case of local government. This further confirms the human capital development problem associated with local administration of the economy. It further goes on to show that the rationing of the foundational education (Universal Basic Education or Primary Education) system decentralized to the local control may be of a very serious defect.

Inflation was properly signed. It shows that a 1.0 percent rise in inflation rate will stifle growth to the tune of about 8.2 percent, 8.0 per cent and 5.7 per cent, respectively. There seems to be consensus in the literature that inflation rate within 3.0 per cent is growth enhancing. Population growth rate, on the other hand, indicated a negative, though statistically insignificant, relationship with growth except in the case of local government. This situation is understandable, since a growing population that is not well catered for becomes a “bad” to the economy. The positive, though insignificant, elasticity of population growth rate, in the case of local administration, shows that, *ceteris paribus*, the growing rural population becomes effective asset for agricultural activities that culminate in the improvement of the general wellbeing of the economy. Finally, openness revealed a positive impact for all three models, though statistically insignificant. It showed that if the economy at those different levels are more open by say 1 per cent, it will bring about 0.8 per

cent, 0.4per cent and 0.3per cent expansion of the economy relative to the levels of fiscal decentralization.

5) Conclusion and Recommendations

Though theory has not established a direct link between fiscal decentralization and economic growth, fiscal decentralization should be an engine driving growth and development. Nigeria has been a federal state for some decades now, but the basic agitations for an inclusive growth and development have persisted, taking different dimensions from different regions. The renewed call for fiscal decentralization, that will make the people own their governance and fiscal process, both in laws and in practice. Thus, this study attempted to establish, empirically, the direct interaction between fiscal decentralization and economic growth for Nigeria over time. A time series data spanning 37 years (1981 – 2018) were collected from secondary sources (CBN and WDI, etc.), and tested using relevant econometric approach, with ECM technique being chosen for its unique features which were considered relevant for this study.

The result showed that fiscal decentralization may not actually transmit economic growth directly, but a closer look indicated that, first, this growth is transmitted through the interactions of the transmission mechanism, as evidence in the insignificant relationship of the fiscal decentralization variables with economic growth, but that it evolves over time through the transmission process of system efficiency, occasioned by the decentralization in place. Sow and Razafimahefa (2015), Udoh, et al (2015), Lozano and Julio (2016), and many other scholars, corroborated this finding. Second, viable human and physical capital/infrastructures are, amid other factors, the driving force of productive fiscal decentralization process, thus, these have to be on ground to drive some strategic policies. This was reflected in the behaviour of the two strands of capital investment structure that is present in the models.

Third, the steady rise in inflation inhibits the growth process, as reflected in the direction of interaction between growth and inflation in the models, and, fourth, growth, over the years, have been inhibited by corruption, ineffective leadership, unconducive macroeconomic environment as well as other encumbrances, as is assumed to have been captured in the stochastic error term. It is, therefore our submission that Nigeria should consciously make and implement laws, including constitutional amendments that will allow States and Local government to take responsibilities for power generation, sea ports, airports, as well as the retention of revenue generated within the State, to foster effective, balanced and inclusive fiscal decentralization as well as a stable macroeconomic environment. The fiscal responsibility Act that limits the fiscal deficits of government to not more than 3.0 per cent of GDP must be adhered to, while appropriate sanctions as contain in the Act should be implemented for its violation. Monetary and fiscal policies of Government should be synergized to ensure that the multiple exchange rate arrangement current in operation are removed. Additionally, the multiple tax regimes should be streamlined to attract both local and foreign investments. The human capital at all levels of governance should be improved. Public service should be run by competent people and not politicians or their cronies. Laws regarding corrupt practices should be strengthened and implement to make corruption and every other form of sharp practices very unappealing. The fight against should also be decentralized and devoid of politics.

The above recommendations should be consciously pursued through evolving sustainable fiscal decentralization process that will afford subnational units the opportunity

to investment in boosting their local and, sometimes, peculiar economy. This approach, whether in the form of controlling their local natural resources – which will strengthen the gains of comparative advantage in production and distribution – or in raising and managing their revenue in their local economy, in a way that will be responsive to their remote, immediate and future needs, will turn out to promote the growth of the entire economy and enhance improved wellbeing for the people.

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Table A: Summary Statistics

	GDPGR	FGTEXP	SGTEXP	LGTEXP	INF	POPGR	OPN	PHCAP	HMCAP
Mean	3.410601	1838.962	1291.177	750.5945	20.04789	2.587879	1474.751	5.780912	146.9578
Median	3.614657	824.3705	263.7833	626.9079	13.80000	2.586550	278.9682	2.275715	62.32500
Maximum	33.73578	7813.741	4459.601	1806.913	76.76000	2.857502	5834.927	101.1660	582.9100
Minimum	-13.12788	9.636500	5.774700	18.96710	0.220000	2.488183	-2230.910	-35.99681	0.240000
Std. Dev.	7.421188	2239.536	1577.280	659.8365	18.21434	0.080651	2130.609	27.12659	197.7079
Skewness	1.290466	1.060739	0.768271	0.243521	1.636409	0.901244	0.746404	1.283999	1.317488
Kurtosis	9.176079	2.874319	1.910640	1.471332	4.747838	4.324228	2.254505	5.554218	3.300202
Jarque-Bera	70.94151	7.151071	5.617142	2.788537	21.79659	7.920688	4.408383	20.77118	11.13593
Probability	0.000000	0.028000	0.060291	0.248014	0.000018	0.019057	0.110340	0.000031	0.003818
Sum	129.6028	69880.56	49064.72	19515.46	761.8200	98.33939	56040.56	219.6746	5584.396
Sum Sq. Dev.	2037.739	1.86E+08	92049068	10884604	12275.20	0.240672	1.68E+08	27226.52	1446271.
Observations	38	38	38	26	38	38	38	38	38
GDPGR	1.000000								
FGTEXP	-0.120875	1.000000							
SGTEXP	-0.023246	0.959016	1.000000						
LGTEXP	0.009270	0.922708	0.989563	1.000000					
INF	-0.239666	-0.347545	-0.385454	-0.383272	1.000000				
POPGR	0.015289	0.827503	0.933935	0.940407	-0.342948	1.000000			
OPN	0.221958	0.499655	0.604497	0.669852	-0.333685	0.552986	1.000000		
PHCAP	-0.143290	0.214475	0.173076	0.120773	-0.150368	0.237438	-0.032639	1.000000	
HMCAP	-0.040438	0.721936	0.816242	0.823120	-0.375329	0.890006	0.308176	0.234208	1.000000