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Research Article

Fiscal Stability and Inclusive Growth in Nigeria

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ABSTRACT

In Nigeria fiscal stability has deteriorated resulting in high rate of deficits and domestic debt. This study investigates fiscal stability and inclusive growth in Nigeria using annual data from the Central Bank of Nigeria (CBN) Statistical Bulletin from 1985 to 2015. The result Autoregressive Distributed Lag (ARDL) estimation technique used in the study showed that in the short run debt ratio and inflation have a significant negative effect on inclusive growth in Nigeria. However, in the long-run, debt ratio have a significant negative effect on inclusive growth. Fiscal deficit and inflation have a significant positive effect on inclusive growth. The Granger causality test shows a uni-direction causality relationship between inclusive growth and fiscal stability measures running only from debt ratio and fiscal deficit to inclusive growth. It is evident from the result that fiscal stability in Nigeria is characterised by policy inconsistency and high level of macroeconomic uncertainty indicating high level of fiscal instability. It was suggested that government need to reduce the size of its deficits, broaden the revenue base by increasing the contribution from non-oil sources.

Keywords: Fiscal; Stability; Inclusive; Growth; Nigeria

1. INTRODUCTION

Development fails when economic growth is not shared throughout society. Inclusive growth therefore is about the pace and pattern of growth and it is defined as the growth episode that leads to job creation and significant increases in the incomes of the poor. Such growth generates employment opportunities and reduces the depth and severity of the incidence of poverty. The Nigerian economy has been plagued with several challenges over the years.

In spite of many and frequently changing fiscal, monetary and other macroeconomic policies, Nigeria has not been able to harness her economic potentials for rapid economic development (Ogbole, Amadi, and Essi, 2011). According to Adeoye, (2011), the debate on the effectiveness of fiscal policy as a tool for promoting growth and development remains inconclusive. The structure, efficiency and effectiveness of public spending impact upon the ability of government to create a conducive business environment, deliver developmental goods and achieve national prosperity. The nature, conduct and levels of public expenditure affect the conditions of fiscal sustainability and macroeconomic framework of any country. Sustainability analysis is crucial for an economy as large debt servicing obligations crowd out necessary resources for social and economic development, thereby exacerbating poverty level.

Nigeria is acclaimed to be one of the six fastest growing economies in the world having reportedly posted an average Gross Domestic Product (GDP) growth rate of 6% in the last decade. However, this enviable position is a far cry from the realities that abound: Persistent high unemployment rate, abject poverty persistence and massive infrastructural decay. According to the National Economic Intelligence Committee (2008), fiscal policy measures should aim at achieving an optimal balance between government revenue and government expenditure. In Nigeria over the years, successive governments have initiated and implemented diverse policies and programmes as part of their development strategies aimed at poverty reduction. Despite these efforts, poverty persists, unemployment rate has increased and the Human development index ranking of 0.504 in 2013 placed the nation at 152 (out of 187 countries surveyed worldwide) and 22 (of 52 countries surveyed in Africa) (UNDP, 2014). This prevalence of poverty in the midst of plenty in Nigeria is indeed a paradox and it is indicative of the fact that economic growth in Nigeria may have only attained what is known as growth without development (Uduakobong, 2015).

Engineering inclusive growth or embarking on a growth path that generates jobs and helps reduce poverty in Low-Income Countries (LICs) is getting increasingly illusive, particularly as millions of the youths in these countries

remain unemployed or underemployed for various reasons, and the duration of unemployment among this group is long and continues to pose challenges to macroeconomic policy. In circumstances such as this, it is not sufficient to just have economic growth year after year; the type of growth which is required is one that engages the youth in gainful employment and provide for the vulnerable-thus helping reduce the potential for social unrest (Kumah and Sandy 2013).

In Nigeria, over many years, fiscal profligacy and poor public financial management intensified by oil revenue driven macroeconomic instability. Budgetary processes virtually seem to be meaningless as extra-budgetary expenditures surface the entire fiscal activities, combined with the lack of medium or long-term plans which the budgeted spending will be connected with the view to achieving sound growth (Baunsgaard, 2003; Appah, 2010). These unplanned expenditures on budget resulted in a significant increase in the country's domestic debt, rising level of deficits and fluctuation in GDP over the years (Idris and Bakar, 2017). The fiscal operations of the Nigerian economy at all tiers of government have basically been characterized by continuing growth in expenditure and fluctuating rate of tax revenue. In spite of the several efforts of the federal government through Central Bank of Nigeria (CBN) to ensure and maintain price stability in the domestic economy, statistical and empirical evidence shows that the Nigerian economy is still suffering from rising inflation and higher deficits hence causing all other macroeconomic indicators to a general state of disequilibrium (Idris and Bakar, 2017). This scenario had deteriorated the fiscal stability resulting in high rate of deficits and domestic debt, as well as inducing more inflationary pressure within the market-oriented economy (Idris and Bakar, 2017).

Despite the existence of fiscal rules as enunciated in the Fiscal Responsibility Bill (FRB) and various constitutional provisions; the sustainability of fiscal policies in Nigeria still remains elusive (Ayinde, 2014).Empirical studies in developed, developing and Nigeria inclusive have documented macroeconomic consequences of fiscal sustainability or stability (Aso, 2013; Ayinde, 2014; Cajner, 2005; Çebi & Özlale 2011; Hall, 2013; Kuştepeli and Önel, 2014, Oyeleke and Ajilore, 2014; Tujula and Wolswijk, 2004). This lacuna is address in this study by examining fiscal policy stability and inclusive growth in Nigeria with a view to establishing whether or not the inter-temporal government budget constraint has been violated within the period.

The broad objective of this study is to examine fiscal stability and inclusive growth on Nigeria economy. To achieve this, the following specific objectives are to be pursued: The specific objectives are to:

i. Investigate the trend of inclusive growth, debt ratio, fiscal deficit and inflation in Nigeria.
ii. Examine the effect of fiscal stability (debt ratio, fiscal deficit and inflation) on inclusive growth Nigeria.
iii. Investigate the direction of causality between debt ratio, fiscal deficit, inflation and inclusive growth in Nigeria.

This study will proffer policy-relevant suggestions that would sensitize the government on the need to address certain problems militating against the achievement of inclusive growth in Nigeria. It will also be of immense benefit to the Central Bank of Nigeria and economic policy-makers alike especially in their efforts to fashion out sound and effective policy that will correct the twin deficit problem facing the country.

2. LITERATURE REVIEW

The term inclusive growth can be traced to Kakwani and Pernia (2000) when it was employed to highlight the contents of pro-poor growth. Inclusive growth basically means making sure everyone is included in growth, regardless of their economic class, gender, sex, disability and religion. It does not only create new economic opportunities but also ensures the equal access to them by all, particularly the poor. Inclusive growth is a two-edged sword - on the one hand it ensures that everyone can participate in the growth process, and on the other hand it makes sure that everyone shares equitably the benefits of growth. According to Ali (2007), the key elements in inclusive growth are employment and productivity, development in human capabilities and social safety nets. McKinley (2010) posited that inclusive growth entails achieving sustainable growth that will create and expand economic opportunities. Inclusive growth is about the pace and pattern of growth. It is the growth that leads to job creation and significant increases in the incomes of poor people. Examples of government initiatives that can contribute to active inclusion are improving infrastructure, financial inclusion, health, education, technology the poor use and public service delivery.

Inclusive growth has been measured differently by authors and international organizations. Ali and Son (2007) used health and education accessibility in relation to income distribution to indicate whether there is a pro-poor social improvement or not. Klasen (2010) use income and non-income indicators of well-being such as access to education and health, nutrition, and social integration to provide a broader measure of inclusive growth. Suryanarayana (2013) conceptualised inclusion as an improvement in fraction of bottom half of the population in the mainstream band. Inclusive growth is conceptualized to be GDP growth that is participatory in production and which the benefit is non-discriminatorily and fairly enjoyed by everybody whether rich, near rich, middle class, near poor or poor. However, due to the reasons of health, difference in skills, individual preferences for leisure and work, and other factors, inclusive growth's opportunities and benefits may not accrue to all citizens equally. This is why GDP per capita based on Purchasing Price Parity (PPP) is adopted as proxy for inclusive growth.

The concept of fiscal stability is used interchangeably in the literature with the terms fiscal health, fiscal sustainability among others. Fiscal stability is a necessary condition for the total amount of government expenditure to make sense; fiscal balance is not, however, a sufficient condition for any individual program or policy, or for the overall level of expenditure, to be desirable government policy.The sustainability of fiscal deficits is defined as the government's ability to raise the necessary funds by borrowing or as the government's budget being balanced in present value terms (Makrydakis, Tzavalis and Balfoussias, 1999). Summarily, the approach focuses on a particular debt ratio, typically constant ratio of debt to real GDP which focuses on steady-states and assumes that a fiscal deficit (or surplus) that leads to unchanging (constant) debt/GDP ratios over time is sustainable. The implication is that a primary deficit (or surplus) is said to be sustainable if it

does not generate an ever-increasing debt/GDP ratio, given a specified real GDP growth target and constant real interest rate (Oyeleke and Ajilore, 2014).

This study is anchored on the marginal utility approach of fiscal stability. The Marginal Utility Approach is one of the earliest theories that recommended the use of economic approach to finding out the composition of government expenditure and budgeting. According to the theory, the government spends its scarce income on alternative services in such a way that the marginal benefit is the same on all items. The principle of Maximum Social Advantage by Dealton is the fundamental principle of public finance which states that economic welfare is achieved when the benefits derived from the marginal utility of expenditure is equal to the marginal disutility or sacrifice imposed by taxation (Mordi, et al, 2013). According to Musgrave (1959), this is the point of optimal size of the budget and at this point, the marginal net benefit is zero. On the other end, public goods theory states that government expenditure is determined by the demand for public goods. The market mechanism is not available for their provision because they are characterized by one or both of non-rivalry and non-excludability i.e. national defense. Thus, public goods usually relate to all goods and services provided by government and included a wide variety of goods and services.

Studies conducted in developed countries on fiscal stability and inclusive growth produced mixed results. Kuştepeli and Önel (2014) tested the sustainability of government deficits in Turkey with the intertemporal budget constraint (IBC) approach. The empirical analysis without structural breaks show that Turkish fiscal deficits are weakly sustainable. Slovenia should take advantage of favourable macroeconomic circumstances for a prompt correction of existing budgetary imbalances. Attaining and maintaining a structural budget balance would allow room for manoeuvre for fiscal policy, which will have to play a central role in macroeconomic stabilization after adoption of the euro. The study found a discount between theoretical and empirical works on fiscal sustainability. In developing countries series of studies examine fiscal stability and inclusive growth with each study revealing the significant factors engender inclusive growth and fiscal stability. Çebi and Özlale (2011) examined the position the fiscal stance for 2006-2010 in Turkey by calculating the structural budget balance and determine the extent to which budget balance is affected by cyclical movements. Findings are that the share of structural primary budget surplus in GDP has declined in the recent years. Fiscal policy is observed to be procyclical in 2007, counter-cyclical in 2009 and a cyclical in 2008 and 2010. Macroeconomic stability supports inclusive economic growth; countries that have reduced inflation variability (and thus, have more stable economic environment) also exhibited higher per capita economic growth rates.

In developing countries series of studies also empirically examine fiscal stability and inclusive growth with each study revealing the significant factors engender inclusive growth and fiscal stability. Tapsoba (2012) investigated whether national numerical fiscal rules (FRs) really shaped fiscal behaviours in 74 developing countries over the period 1990-2007 also found same conclusion as he controlled for self-selection problem in policy evaluation. In terms of policy implication, the paper suggested that the introduction of rule-based fiscal policy frameworks remain a credible remedy for governments in developing countries against fiscal indiscipline. In another study, Aso (2013) examined theoretical models that underpin studies on "sustainability of budget deficits", which have been drawing interest in recent years, and also explains methods of empirical tests. The study starts with a discussion on the inter-temporal government budget constraint in a certainty model and then expands the discussion to under uncertainty. Under uncertainty, the issue of whether or not Ponzi schemes are feasible in a dynamically efficient economy is theoretically important.

Plethora empirical studies conducted in Nigeria focusing on fiscal stability and inclusive growth have also attempted to determine the significant factors influencing inclusive growth. Traditionally, the specification of the government sector follows the Keynesian framework. In another study, Mordi, et al., (2013) designed fiscal policy model to describe the behavior of some selected fiscal variables of interest. In the long-run government spending on health, economic freedom, public resource use and real GDP growth rate had a positive influence on inclusive growth in Nigeria. In the short-run, only real GDP impacted significantly on inclusive Growth while other variables were not significant in causing inclusive growth. The results show that fiscal policy is both strongly and weakly unsustainable in Nigeria; given the components of government expenditure. Although sustainability is attained between capital expenditure and government revenue but the government has to contend with liquidity problems. Idris and Bakar (2017) evaluate the effects of fiscal operations on macroeconomic growth in Nigeria. The study concludes that fiscal operation is ineffective in providing the needed macroeconomic environment for sustainable growth.

3. METHODS

This study utilizes ex-post factor research design in the analysis. The research design is deemed appropriate for this study because it is a quasi-experimental study used to examine how an independent variable, present prior to the study in the participants, affects a dependent variable. The generalized Mankiw, Weil and Romer MRW (1992) provided the theoretical framework to study inclusive growth. The framework assume that in a given country at time t, the output Yt depends on inputs of raw labor Lt and three types of accumulated factors: Kt, Ht, and Zt. The factor Zt, which could be an index of technology, or of human capital acquired through learning-by-doing, is assumed to be accumulated as a byproduct of economic activity and does not require the sacrifice of current output. The four factors of production combine to produce output according to the following standard, constant-returns-to-scale Cobb-Douglas form (note that Zt multiplies raw labor Lt and thus may also be thought of as an index of labor productivity):

$$Y_t = K^{\alpha}_t H^{\beta}_t (Z_t L_t)^{1-\alpha-\beta} \quad (2.1)$$

Output may either be consumed or transformed into K-type or H-type capital:

$$Y_t = C_t + K_t + \delta_K K_t + H_t + \delta_H H_t \quad (2.2)$$

where Ct is consumption and the over dot indicates a time derivative. K-type and H-type capital depreciate at rates 8K and SH respectively. Z-type capital does not use up output, but is accumulated according to some yet unspecified relationship that links changes in Z to the current state of the economy.

Further, the t-period difference in output per worker along the BGP is

$$\text{In } y^*_t - \text{In } y^*_0 = \text{In } Z_t - \text{In } Z_o = tg(s_K, s_H, n, Z_o, K_0, H_0, L_o). \quad (2.3)$$

To this point we have considered the BGP of a single country. As have been stressed, the analysis thus far assumes only that the economy is in a BGP and does not rule out endogenous determination of TFP (identified here with Zt). To go from this generalized MRW framework to a specific growth model, additional restrictions are required.

This study will adopt two techniques in order to capture the hypotheses and achieve the three objectives. The first objective which examined the effect of fiscal stability (debt ratio, fiscal deficit and inflation) on inclusive growth Nigeria will be captured using the fiscal stability-inclusive growth model. The second objective on the direction of causality between debt ratio, fiscal deficit, inflation and inclusive growth in Nigeria) will be analyzed using Granger causality test approach.3.3.1 Thus, in the attempt to empirically represent the effect of fiscal stability on inclusive growth, the study makes use of average annual growth in logged GDP per capita as measure of inclusive growth in line with Kolawole (2017). The approach was modified such that average annual growth in logged GDP per capita used as measure of inclusive growth was the dependent variable while measures of fiscal stability including debt ratio, fiscal deficit, inflation, domestic interest rate were the explanatory variables:

$$\Delta Gdp_i = f(DR, FD, INF, DIR) \quad (7)$$

$$\Delta Gdp_i = ß_0 + ß_1 DR_i + ß_2 FD_i + ß_3 INF_i + ß_4 DIR_i + e_i \quad (8)$$

Where:

DR = Debt Ratio (Measured as ratio of debt to real GDP)

FD = Fiscal Deficit

INF = Inflation

DIR= Domestic interest rate

In order to investigate the causality relationship between fiscal stability and inclusive growth in Nigeria a Granger Causality framework specified as follows:

Growth and Debt Ratio is specified as:

$$Gdpi = \alpha 0 + \alpha_1 DR + e_{1i} \quad (6)$$

Growth and fiscal deficit is specified as:

$$Gdpi = ß0 + ß_1\ FD + e_{2i} \quad (7)$$

Growth and inflation is specified as:

$$Gdpi = \lambda 0 + \lambda_1 INFL + e_{3i} \quad (8)$$

The aforementioned linear simultaneous equations models include inter-dependence and joint effects, so it cannot be estimated by using OLS; if did, would lead to inconsistent estimates. So to provide consistent estimates, the study employed the Multivariate Granger causality analysis. The Multivariate Granger system for the relationship between growth and benefits of growth is specified in general form as follows:

$$\begin{pmatrix} y_{1t} \\ y_{2t} \end{pmatrix} = CD_t + \sum_{t=1}^{p} \begin{pmatrix} \alpha_{11} & \alpha_{12} \\ \alpha_{21} & \alpha_{22} \end{pmatrix} \begin{pmatrix} y_{1t-1} \\ y_{2t-1} \end{pmatrix} + \begin{pmatrix} \mu_{1t} \\ \mu_{2t} \end{pmatrix}$$

In the model set up, y_{1t} does not Granger cause y_{2t} if and only if

$\alpha_{2i} = 0, \quad i = 1, 2, \text{----}p$

The proxy used for inclusive economic growth is GDP per capita based on purchasing power parity (PPP) rates. The twelve month average headline, core and food all items less farm produce consumer price index was used as proxy for inflation. The debt ratio will be measured by expressing total public debt as a ration of real gross domestic product. The variables to be used from this source are poverty, life expectancy, and literacy rate. Data was sourced from Central Bank of Nigeria (CBN) Statistical Bulletin. The variables from CBN statistical bulletin are aggregate real gross domestic product (RGDP), fiscal deficit (FD), inflation (INFL) and domestic interest rate (DIR), which spans from 1980 to 2018.

Given the relevance of simultaneous evaluation of both the short-run and long-run relationships, Autoregressive Distributed Lag (ARDL) cointegration technique will be employed in the analysis of the second objective. The choice of ARDL stemmed from the fact that among different coitegration approaches, the ARDL technique is relatively important and useful. Among its advantages is that, it does not require that all variables under consideration be integrated of the same order as it can be applied when the under-lying variables are integrated of order zero, order one or fractionally

integrated. Also, ARDL test is relatively more efficient in the case of small and finite sample data sizes. More also, by applying the ARDL technique, an unbiased estimate of the long-run model can be obtained (Kolawole 2017). In the analysis of the second objective, the Granger causality approach was employed.

4. RESULTS AND DISCUSSION

The results of the descriptive analysis is interpreted taken into consideration the mean and the median, the skewness coefficient, kurtosis and Jarque-Bera statistics presented in Table 1.

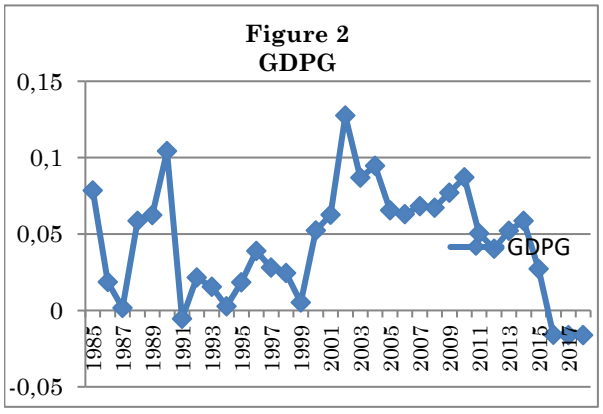
Table 1. Descriptive Statistics

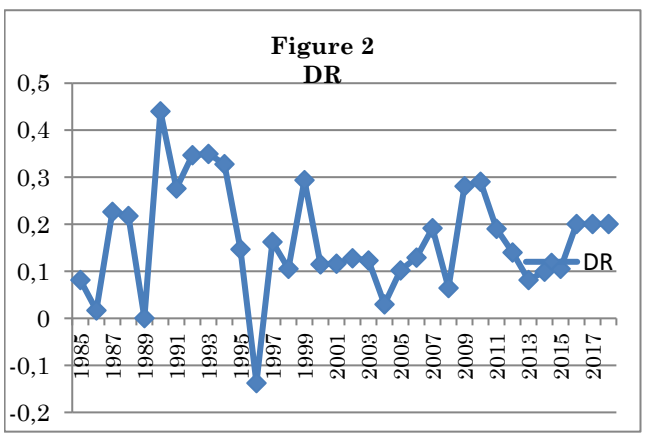
	GDPG	DR	FD	INF	DIR
Mean	0.048030	0.164028	97.73063	17.68125	12.61875
Median	0.052161	0.134794	2.590000	12.00000	11.16000
Maximum	0.127433	0.440480	1076.080	57.20000	28.02000
Minimum	-0.016090	-0.137510	-1226.080	-14.10000	6.300000
Std. Dev.	0.034307	0.119925	370.1466	17.52884	5.212688
Skewness	0.126121	0.097086	-0.655209	1.121832	1.183438
Kurtosis	2.458885	3.194789	7.660920	3.523568	3.924540
Jarque-Bera	0.475241	0.100860	31.25515	7.077536	8.609170
Probability	0.788502	0.950820	0.000000	0.029049	0.013506
Sum	1.536967	5.248880	3127.380	565.8000	403.8000
Sum Sq. Dev.	0.036487	0.445841	4247264.	9525.069	842.3358
Observations	32	32	32	32	32

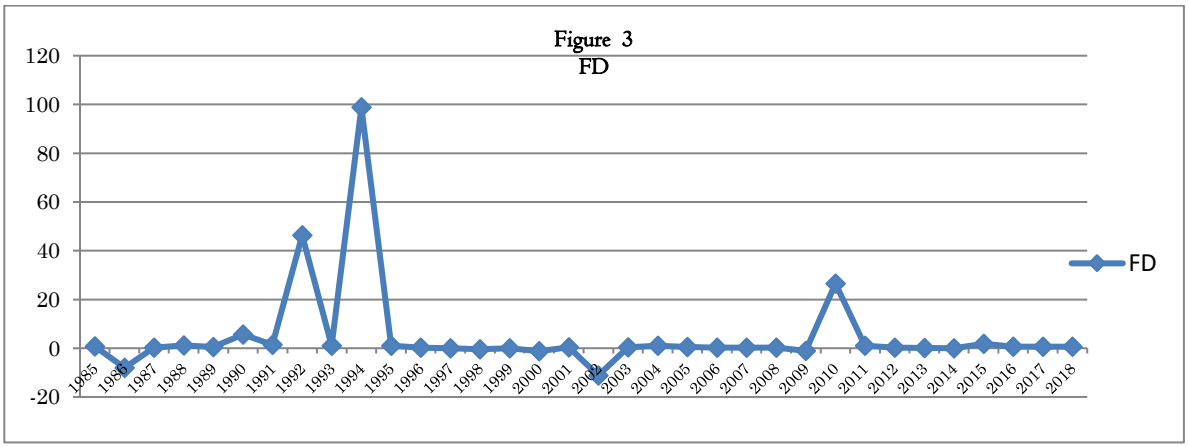
Source: Author, 2021

The results in Table 1 showed that debt ratio, fiscal deficit, inflation and domestic interest rate are positively skewed since their means are greater than the medians except for inclusive growth as measured by GDP growth. The skewness coefficient of inflation and domestic interest rate are greater than one indicating that this variable is highly symmetrical while the skewness coefficient of inclusive growth measure, debt ratio and fiscal deficit are not. The positive values of the kurtosis of all the variables established the fact that these variables are leptokurtic in nature. The values of the Jarque-Bera statistics showed that fiscal deficit, inflation and domestic interest rate are normally distributed since their p-values are statistically significant at 5% level of significance while inclusive growth measure and debt ratio are not.

Trend of Sustainable Development and Gender Equality







Source: Author, 2021

Figure 1 showed that between 1985 and 1988 there was a sharp a fall in the trend of growth in Nigeria. However there was an upsurge in the trend of inclusive growth between 1989 and 1990, before it fell very sharply in 1991. There was and ups and down inconsistent movement in inclusive growth between 1991 and 1999, before it later increased sharply from 2000 to 2004. Between 2005 and 2018 inclusive growth has been decreasing at an increasing rate.

Figure 2 showed that the trend in the Nigeria debt ratio between 1985 and 2015 was very unstable. For some years, such as 1987 between 1989 and 1991, 1999 and between 2008 and 2011 the debt ratio increase sharply while for some other years such as 1986 , 1989, 2004 and between 2008 and 2018 the debt ratio fall drastically.

Figure 3 showed that between 1985 and 1990 fiscal deficit in Nigeria was very low and relatively stable. However, there was a sharp increase in fiscal deficit between 1991 and 1992 after which the country witnessed a sharp fall in 1993 before it later increased sharply between 1993 and 1994. Fiscal deficit falls sharply in 1995 but it later became very low and stable thereafter up to 2010. The figure was negative between 2001 and 2003 but thereafter it became very low and stable up to 2009. Between 2009 and 2011 it increased sharply but thereafter it became very low and stable up to 2018..

The results of the correlation analysis as presented in the correlation matrix to determine the association among the variable as whether multicorrelation exist as a result of such association is presented in Table 2 as follows:

Table 2. Correlation Analysis Matrix

	GDPG	DR	FD	INF	DIR
GDPG	1				
DR	-0.163015	1			
FD	0.420734	-0.129486	1		
INF	-0.186591	0.195859	-0.113418	1	
DIR	-0.108691	0.443245	-0.118451	0.556494	1

Source: Author, 2021

The results as presented in Table 2 showed that there was a negative association between debt ratio, inflation, domestic interest rate and inclusive growth in Nigeria while the association between inclusive growth and fiscal deficit was positive. The correlation coefficients of inclusive growth, debt ratio, fiscal deficit, inflation and domestic interest rate are not very strong since they are below 0.95 indicating the absence of the problem of multicorrelation among the independent variables.

4.1. Lag Selection

The results of lag-order selection criteria for the estimated model are presented in Table 3.

Table 3. Lag-Order Selection Criteria

	LogL	LR	FPE	AIC	SC	HQ
0	-347.8664	NA	11329.51	23.52443	23.75796*	23.59914
1	-314.4170	53.51915*	6628.081*	22.96113*	24.36233	23.40939*
2	-291.8274	28.61340	9058.350	23.12183	25.69069	23.94363

Source: Author, 2021

Table 3 presents the result of Lag-Order selection criteria. A maximum of 1 lags as suggested by sequential modified, LR test, Final prediction error and Hannan-Quinn information criterion (HQ) was used in the analysis.

4.2. Unit Root Test

The unit root test result using Augmented Dicker Fuller (ADF) to examine the stationarity of the chosen variables are presented in Table 4 as follows:

Table 4. Unit root test results.

Variables		ADF Test (Value)		Order of Integration
		Level	First Diff	
GDPG		-1.951914	-7.174552	I(1)
DR		-1.198507	-8.729031	I(1)
FD		-1.971792	-3.130174	I(1)
INF		-2.057743	-5.779526	I(0)
DIR		-0.645407	-7.177833	I(1)
Critical Value @	1%	-2.641672	-2.644302	
	5%	-1.952066	-1.952473	
	10%	-1.610400	-1.610211	

Source: Author, 2021

The results of the Augmented Dickey Fuller (ADF) unit root test as presented in Table 4 showed that only inflation was stationary at level. After taking their first difference, inclusive growth measured by GDP growth, fiscal deficit and domestic interest rate become stationary at 5% level of significance.

The results of the bound test for the model is presented in Table 5, followed by the result of the short-run estimates in table 6 after which the result of long-run estimates was presented in Table 7.

Table 5. Bound Test

Model	**Number of Lag**	**F-statistics**	**5% (I1) Critical value**
1	1	28.15289	4.01

Source: Author, 2021

The F-Statistics test the joint Null hypothesis that the coefficients of lagged level variables are zero. Table 5 reports the result of the calculated F-Statistics which are more than upper critical bound (UCB) which is at 5% (Pesaran, Shin and Smith, 2001). Thus the Null Hypothesis of no co-integration is rejected Since the F-value (28.15289>4.01) is more than upper bound value, implying long run co-integrating relationship between fiscal stability and inclusive growth in Nigeria. The estimated statistics show that the model specification seems to pass all diagnostic tests successfully.

Table 6. Short Run Estimates

	Dependent variable: GDPG			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
DR	-0.261402	0.288925	-2.904740	0.0454
FD	0.000011	0.000023	0.476542	0.6384
INF	0.001140	0.000558	7.044927	0.0130
DIR	0.001016	0.002310	0.439793	0.6644
ECM(-1)	-0.733938	0.147691	-11.740276	0.0000
F-statistic			4.520143	
R-squared			0.652125	
Adjusted R-squared			0.629977	
Durbin-Watson stat			2.432086	

Source: Author, 2021

The results of short run dynamics using the ECM version of ARDL are reported in Table 6. The short run adjustment ECM coefficient generally represents the speed of adjustment towards equilibrium, that means how quickly the equilibrium is established if the path is in disequilibrium. The larger the error term, the earlier the economy's return to the equilibrium rate of growth; following a shock. The coefficient lies between 0 and −1, the equilibrium is converging to the long run equilibrium path and is responsive to any external shocks. The result showed that the coefficient of ECT(-1) -0.733938 was negative and significant. It means the whole system can get back to long-run equilibrium at the speed of

73%.

In the short-run, the coefficient of fiscal deficit (ß =0.000011, t=0.476542, p>0.05) and domestic interest rate (ß=0.001016, t=0.439793, p>0.05) were inelastic, while the coefficient of debt ratio (ß = -0.261402, t=-2.904740, p<0.05) and inflation (ß = -0.001140, t=7.044927, p<0.05) is elastic. The result shows clearly, that a 1% increase in inflation decrease inclusive growth by 0.1% and a 1% increase in debt ratio decrease inclusive growth by 26% in the short run. This means that the level inflation and debt ratio have a negative effect on inclusive growth in the short run.

Table 7. Long-Run Estimates

Dependent variable: GDPG				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
DR	-0.150756	0.166846	-14.03564	0.0060
FD	0.000006	0.000013	3.477653	0.0376
INF	0.000658	0.000314	2.096471	0.0478
DIR	-0.002079	0.001571	-1.323081	0.1994
Constant	0.021354	0.026277	0.812673	0.4251
F-statistic			4.520143	
R-squared			0.652125	
Adjusted R-squared			0.629977	
Durbin-Watson stat			2.432086	

Source: Author, 2021

The results of long run estimation have been shown in Table 7, which shows that debt ratio (**β**=-0.150756, t=-14.03564, p<0.05) have a significant negative effect on inclusive growth. This implies that with an increase in debt ratio, inclusive growth decrease. Fiscal deficit (**β**=0.000006, t= 3.477653, p<0.05) have a significant positive effect on inclusive growth. This implies that with an increase in fiscal deficit, inclusive growth increase. Inflation (**β**=0.000658, t=2.096471, p<0.05) have a significant positive effect on inclusive growth. This implies that with an increase in inflation, inclusive growth increase. Domestic interest rate (**β**=-0.002079, t=-1.323081, p>0.05) does not have a significant negative effect on inclusive growth. This implies that with an increase in domestic interest rate, inclusive growth decrease.

By and large, the ARDL estimate indicates that while the effect of debt ratio and inflation on inclusive growth was negative and elastic in the short. In the long-run, the effect of debt ratio was negative and elastic in the long-run while the effect of fiscal deficit and inflation was positive and elastic. The result showed that debt ratio as a measure of fiscal health showed a significant negative effect on inclusive growth both in the long-run and short-run while fiscal deficit only show a significant positve effect in the long run. It can be inferred that fiscal health has significant effect on inclusive growth in Nigeria.

4.3. Relationship between Men and Women and effect on Sustainable Development in Nigeria

Table 8. Granger Causality Test

Hypothesis			F-Statistics	Prob
Panel A: Causality from other variables to GDPG				
→	DR	GDPG	4.02280	0.0011
→	FD	GDPG	2.76962	0.0072
Panel B: Causality from GDPG to other variables				
→	GDPG	DR	0.81915	0.3731
→	GDPG	FD	0.42149	0.5215

Source: Author, 2021

The Granger causality test results shown in panel A of table 8 shows that fiscal deficit and debt ratio granger cause inclusive growth in Nigeria at 5% level of significance. Hence, the null hypothesis that there is no causality relationship fiscal deficit and inclusive growth is rejected. In panel B debt ratio and fiscal deficit do not granger cause inclusive growth at the 5% level of significance. Therefore, the Granger causality test established a uni-direction causality relationship between inclusive growth measure and fiscal stability measures while causality runs from debt ratio and fiscal deficit to inclusive growth, it does not run from inclusive growth to debt ratio and fiscal deficit.

5. CONCLUSION AND RECOMMENDATIONS

This study investigates fiscal stability and inclusive growth in Nigeria. The study specifically analyse the trend of inclusive growth, debt ratio, fiscal deficit and inflation; examine the effect of fiscal stability (debt ratio, fiscal deficit and inflation) on inclusive growth Nigeria; and investigate the direction of causality between debt ratio, fiscal deficit, inflation and inclusive growth in Nigeria.

This study used time series data from the Central Bank of Nigeria (CBN) Statistical Bulletin and National Bureau of Statistics (NBS) covering the period of 1985 to 2015. In the analysis, two models were formulated to achieve the stated objective which consisted of fiscal stability-inclusive growth model and causality model to answer specific objective two and three respectively while line graph was used to answer objective one. In the pre-estimation the study used the Descriptive statistics, correlation analysis, lag order selection and unit root test while Autoregressive Distributed Lag (ARDL) estimation technique was used in the actual estimation.

The results of the analysis using the line graph showed that over the entire period there have been ups and down movement in both indicators of inclusive growth and fiscal stability which signalled policy inconsistency and high level of macroeconomic uncertainty in the country which may largely be attributed to the issue of boom and bust in the international oil price for some years. When there was a boom the country debt ratio, fiscal deficit falls sharply while growth rate increase sharply but when there is a bust the reverse has always been the case. The result of Autoregressive Distributed Lag (ARDL) estimation to achieve the second objective showed that in the short run the effect of debt ratio (ß = -0.261402, t=-2.904740, p<0.05) and inflation (ß = -0.001140, t=7.044927, p<0.05) have a significant negative effect on inclusive growth in Nigeria. However, in the long-run, while debt ratio (**β**=-0.150756, t=-14.03564, p<0.05) have a significant negative effect on inclusive growth. Fiscal deficit (**β**=-0.000006, t= 3.477653, p<0.05) and inflation (**β**=0.000658, t=2.096471, p<0.05) have a significant positive effect on inclusive growth. The Granger causality test for research question three established a uni-direction causality relationship between inclusive growth measure and fiscal stability measures while causality runs from debt ratio and fiscal deficit to inclusive growth, it does not run from inclusive growth to debt ratio and fiscal deficit.

By and large, fiscal health in Nigeria is characterised by policy inconsistency and high level of macroeconomic uncertainty which pointed out high level of fiscal instability in the country. This justify the position that budgetary processes in the country is virtually meaningless as extra-budgetary expenditures surface the entire fiscal activities, combined with the lack of medium or long-term plans which the budgeted spending will be connected with the view to achieving sound growth. The result corroborated the findings of Kolawole (2016) on the relationship between government spending and inclusive growth in Nigeria over the period 1995 to 2014. The study found that in the long-run government spending on health, economic freedom, public resource use and real GDP growth rate had significantly positive influence on inclusive growth. In the short-run, however, only real GDP impacted significantly on inclusive growth while other variables were not significant in causing inclusive growth. Similar relationship was established by Ayinde (2014) on sustainable fiscal management in Nigeria for the period 1970- 2011. The results show that fiscal policy is both strongly and weakly unsustainable in Nigeria; given the disaggregated components of government expenditure. Although sustainability is attained between capital expenditure and government revenue but the government has to contend with liquidity problems since the growth of capital expenditure is higher than that of its revenue counterpart. The policy suggestions emanating from the above findings to stimulate savings and boost productive capacity are: there is need for government to reduce the size of its deficits, broaden the revenue base by increasing the contribution from non-oil sources. Also, government need to synchronize both monetary and fiscal policies in order to ensure growth and maintained stability in the economy.

AUTHOR'S CONTRIBUTIONS

Author 1: Data collection; Author 2: Literature review; Author 3: Introduction; Author 4: Data analysis, Author 5: Material Sourcing. All authors discussed the results and contributed to from the start to final manuscript.

CONFLICT OF INTEREST

The authors declare that they have no competing interests.

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