

DEFICIT FINANCING AND MACROECONOMIC PERFORMANCE: THE NIGERIA EXPERIENCE

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Abstract

The study investigates the relationship between deficit financing and the performance of the macro economy proxy by GDP in Nigeria for a period of thirty years from 1990 to 2019 using the ARDL model due to the mixed order of integration. Deficit financing was proxied by domestic money supply, government fiscal deficit, and inflation rate as control variable in the model. And the result shows that the model met the necessary condition of stability but fail the sufficient condition with an explosive divergence indicator. Also, there is long run relationship between the variables, and from the estimates of the long run equation, all the variables having a significant effect on the economy with domestic money supply inducing positive impact while inflation and government fiscal deficit having a negative. The study concludes that deficit financing has no immediate impact on the economy, but long-term effects.

Keywords: Macro economy, deficit financing, Nigeria

Introduction

Deficit as a means of financing was introduced in Nigeria after the civil war, heightened by the uncertainties in the oil market and further intensified by the current financial and economic challenges. From independence, more than 85% of Nigeria budget is primarily on deficit (Momodu & Monogbe, 2017). Deficit financing or budget deficit refers to financial arrangement launch excess in expenditure value over revenue amount at a period in time. Although, it is a common practice at both micro and macro level, however, when it involves the government spending, it portrays a macroeconomic effect on the economy (Okah, Chukwu, & Ananwude, 2019). Key indicators of deficit financing are public borrowing, increasing money supply, aid and grants, etc. Macroeconomic performance on the other hand is measure by the level of output in the economy within a space of economic activities, basically a sustain increase of market value of economic activities in an economy within a period of time.

Deficit financing and macroeconomic performance of the economy proxy by economic growth has been of great concern facing the Sub-Saharan region in recent times, and scholars and policy makers wonders around the exact relationship. According to Ayuba and Khan (2019), despite several fiscal policy measures introduced by governments in curbing excessive deficit coupled with the huge quantum of domestic and external loans, the Sub-Saharan African countries still remain at inlet with citizens suffering from high levels of unemployment and insecurity, while poverty remains widespread both in urban and rural areas (Abubakar, 2021). A global opinion, individuals have assumed that the current state of Sub-Saharan African economy is linked to deficit financing and mismanagement of both external and internal borrowed resources on the part of governments within the region (Akinmulegun, 2014). A critical review of the budget in sub-Saharan Africa has shown that it is counterproductive to see multiple overlaps in the budget without substantial impact on the

timid populace as regards to capital projects implementation. Thus, the debt must be linked to the capital project (IMF, 2012).

In Nigeria, notwithstanding the fact that actual revenues realized are often above the budgeted estimates, huge budget deficits have been recorded over the years (Anyanwu, 1997). This lack of fiscal discipline which have resulted in ever increasing fiscal deficits have been blamed for some of the macroeconomic problems that overwhelmed the country: high and rising inflation rates, high and rising unemployment, balance of payments problems, over indebtedness and debt crisis, poor investment performance, etc. (Onwiodiokit, 1999; Nwaeke & Korgbeelo, 2016). It's a known fact that current public debt growth is larger than the growth rate of the economy in emerging economies like Nigeria, as posited by Audu (2004) it is expected that growing public debt causes problems as relates to gross domestic product. However, in quest to secure better economic conditions, often the government is forced to implement expensive fiscal policy whose aim is to stimulate economic agents (posited by Keynes, 1936) in the market to realize higher level of economic growth. When aggregate demand is far lower than required, deficits are justified. As economy resumes growth, demand for goods and services as well as tax receipts will increase to generate equiposing budgetary surpluses (Onuorah & Ogbonna, 2013).

There has been increasing concern among scholars, policy makers, and captains of industries on the effect of budget deficit on Nigerian economy. Some argue that it portends positive effect, some group insist that it has negative effect while others classify the effect as neutral (Nwikina, Meekor, Cookey, & Gbarato, 2021). Empirical evidences of deficit-financed-led-growth in economic literature is still promising as there continue to be mixed reactions among scholars, policy makers and administrators of the Nigerian economy (Aero & Ogundipe, 2018; Musa, 2021). Based on this, it is widely believed that oil price volatility which seems to be the seasonal fiscal benchmark and increasing deficit finance is believed to impact our economy significantly. Thus, it is imperative to delve into this relationship among these variables so as to provide policy framework for our macroeconomic administrators on the implication of deficit financing.

The study aims at examining the impact of deficit financing on the macro economy of Nigeria from 1990 to 2019. The attainment of this purpose is guided by the following specific objectives:

1. To empirically examine the impact of government fiscal deficit on economic growth
2. To ascertain the extent to which inflation rate have affected economic growth and
3. To examine the impact of domestic money supply on economic growth

Hypotheses formulated

The formulated null hypotheses are;

1. Government fiscal deficit has no significant impact on economic growth
2. Inflation rate is not significantly related with economic growth and
3. Domestic money supply has not significantly impact on economic growth

Theoretical framework

Theoretically, when government initiates a project and her revenue is not sufficient enough in sponsoring the project, there are three major ways of financing such a project and they are taxes, borrowing and monetization. Currently, the most common method of deficit finance is borrowing, which is usually done by issuing government bonds in the open market. It is of key significance to note that deficit financing in an economic has its implication either

positive or negative has argued by various school of thoughts. For the purpose of this study, the theoretical frameworks that were considered relevant include: Keynesian economic growth theory and Neo-classical school of thought. However, this work is anchored on the Keynesian view of budget deficits.

Keynesian Economic Growth Theory

Keynesian Economic Theory was developed by British Economist John Maynard Keynes in 1936. Keynes believes that public spending can make positive contribution to economic growth by increasing government consumption which enhances employment, productivity and investment. In other words, the federal government can reverse the recession by borrowing money from the private sector and returning it to the private sector through various expenditure measures. The theory states that active government intervention in the market through deficit finance is the only way to ensure growth and stability through efficient resource allocation, market regulation, economic stabilization and harmonization of social conflicts (Abubakar, 2021). Keynes states that in the short run, economic growth through economic stability is strongly influenced by total spending in the economy. This theory considers the economy to be inherently volatile and requires active government intervention through spending to achieve economic stability. Deficit financing whether through domestic resources or foreign borrowings involves the absorption of real resources by the public sector that otherwise would be available to the private sector (Okelo, Momanyi, Lucas & Alia, 2013).

Keynesian theory stimulates the economy, reduces unemployment and makes household feel wealthier using government spending (Usher, 1998).The desired aggregate demand relationship in the goods market in the Keynesian framework is expressed as follows:

$$Y = C + I + G + (X - M) \dots \dots \dots (1)$$

The behavioral equation is written as;

Where Y = output or economic growth

C = Consumption, which depends on disposable income, and tax revenue

I = Investment, which depends on interest rate

G = exogenous government expenditure

X = exports, exogenous in nature and

M= Imports, which depends on exchange rate

As asserted by Okpanachi and Abimiku (2007) suggest that fiscal deficits stimulate economic activity in the short term, making households feel richer and thus increasing overall spending of private and public consumption. This means that Keynesian theory increases the demand for money and increases the interest rate, which reduces investment. Keynesian economists believe that private sector decisions often lead to inefficient macroeconomic consequences that require strong public sector policy responses, such as the monetary policy measures of the Nigerian central bank and the fiscal policy of the Federal Treasury to stabilize output to the economy.

Neoclassical School of Thought

The neoclassical economist proposes a negative relationship between fiscal deficits and economic development. The Neoclassical school considers individuals planning their consumption over their entire cycle. By shifting taxes to future generations, fiscal deficits increase current consumption. By assuming full employment of resources, the neoclassical school argues that increased consumption implies a decrease in savings (Ayuba & Khan, 2019). Higher interest rate in turn results to a decline private investment, domestic production and an increase in the aggregate price level. When the public sector expands, the price of these resources rises due to excessive demand from the government, which causes the private sector to contract, reducing investment and consumption by the private sector. Thus, expansion of the public sector pushes the private sector out (Aworinde, 2020).

However, it is imperative to note that resource concentration is a critical issue to consider as its concerns developing economies like Nigeria, wherein the private sector lacks the basic resources to invest, and expansion of government demand for loanable fund retard the productive level of the private sector. Hitherto, that government borrowing reduces private investment happens to be a significant contribution of the neoclassical analysis (Ayadi & Ayadi, 2015).

Empirically, plethora of empirical evidences exist on the relationship between economic growth and deficit financing, and among these evidences, Onuorah and Ogbonna (2013), analyze the effect of Deficit Financing on the Nigerian economy from 1981 to 2012. In their analysis, they applied descriptive statistics, OLS, Diagnostic test, ADF unit root, Johansen Co-integration and pairwise Granger causality test and the findings shows that the variables were stationary at first difference data. The variables were jointly co-integrated at 5% level, with deficit financing is statistically significant and positively related to economic growth. This suggests that both domestic debt and external debt liability contributes effectively to the settlement of debt. In respect to the regression result, it is apparent that domestic debt and external debt remains the crucial source of financing deficit. The study therefore concluded that so far as a long-run equilibrium relationship exists between the dependent and independent variables, and has assumed that the deficit financing asserts sufficient influence on the growth in the debt management and services in Nigeria.

Nkrumah, Owusu & Orkoh (2016), assess the relationship between budget deficit and economic in Ghana using quarterly data from 2000 to 2015, with ARDL approach with trend analysis. From the trend analysis reveals that since 2000, years of high budget deficit were usually followed by years of low economic growth and vice versa. This phenomenon was pronounced in 2009, when the Gross Domestic Product (GDP) growth rate fell from 7.3 percent in 2008 to 4 percent in 2009, following an increase in the budget deficit from 8 percent in 2007 to 11.5 percent in 2008. The same phenomenon was observed between 2012 and 2015. The econometric results show a significantly negative effect of budget deficits on economic growth. Thus, a 100 percent increase in budget deficit in the long run would lead to a 3 percent decrease in real GDP, holding all other factors constant. The results confirm the Neoclassical proposition that high budget deficit does not necessarily translate into economic growth.

Osemwengie and Shaibu (2018), investigates the inter-relationships between deficit financing (DF), oil price movement and economic growth in Nigeria from 1980 to 2014. The study employed granger causality test and the 2SLS estimation techniques in a semi-log form after first considering the status of identification of the equations in the system. Both rank and order conditions of identification showed that the model was identified. The findings revealed

the existence of a strong relationship between real GDP and oil price movement while deficit financing (DF) proved to be weak determinant of real GDP. In the model of oil price movement, only real GDP proved to be significant at 5 per cent while DF managed to explain oil price movement at 10 per cent level. Both real GDP and oil price movement proved to be significant determinants of DF. Uni-directional relationship exists between real GDP and DF; oil price movement and DF while a bi-directional relationship exists between real GDP and oil price movement.

Kasasbeh and Alzoub: (2019), examines the effect of deficit financing on economic stability in Jordan using quarterly data from 2005 to 2017, with the application of Vector Error Correction Model (VECM) after seasonally adjusting the variables. The finding shows that external borrowing (EBDT) and domestic bank financing (BANK) negatively affect economic stability. The bank effect is due to crowding out the private sector. External borrowing negative impact is driven by the current high level of outstanding public debt, 98 percent of GDP. Public debt is mainly channeled to finance current expenditures at the expense of capital expenditures, which has a minimal impact on growth. Interest rate (REPO) effect is in line with the finance theory as higher rates lead to lower growth. Nonbank financing (NonBank), although not statistically significant, exhibits the right sign as it has a positive effect.

Nwikina, et al (2021), examine the effectiveness of deficit financing as a veritable instrument to enhance economic development in Nigeria from 1986 to 2019. Economic development was proxied by human development index, while deficit financing by budget deficit and government expenditure. They adopted the ARDL model and granger causality techniques in their analysis and the result shows that budget deficit and government expenditure exert positive but marginal influence on economic development in Nigeria. Furthermore, a unidirectional causality was discovered, indicating that deficit financing through government expenditure promotes economic development in Nigeria. However, the outcome of the research in tandem with the Keynesian theory, deficit financing value in Nigeria is not substantive enough to drive the desired development of the economy.

We are building on already existed empirical findings with some degree of deviation from the conventional variables and extension of the period under review to contribute our quota on the implication of deficit financing on the macro economy of Nigeria. Previous studies have not measure the impact of government fiscal deficit on economic growth, in this paper we integrated this variable in the model to critical define it effects on the economy.

Methodology

The variables consider in this study consists of gross domestic product, public debt, money supply, budget deficit, and external reserve. External reserves (also known as international reserves or balance of payments assets) are external assets that are readily available and controlled by a country's monetary regulatory agencies (IMF, 2020). The broad money supply is the totality of money in the economy which is in a usable form (CBN, 2020). It includes the narrow money supply (M1), i.e, circulating banknotes and coins plus balances on demand deposit with the deposit money banks plus quasi money (M2) in an economy. GDP is the market value of goods produce within the country at the market prevailing price.

Following the works of Okah, Chukwu and Ananwude (2019), Nwanna and Umeh (2019) and Abubakar (2021), analyzing the effects of fiscal deficit on the performance of the Nigeria economy, with little modification base on our objectives. We specified that economic growth poxy by GDP is significantly influenced by fiscal policy indicators (public domestic and

external debt). Hence, in this study the relationship between deficit financing and economic growth is given as:

$$GDP = f(PUBDEBT, M2, BDEFCIT, EXRESV) \dots \dots \dots 2$$

Econometrically, eqn. 2 is transform to eqn. 3 with the introduction of the random term

$$GDP = \beta_0 + \beta_1PUBDEBT + \beta_2M2 + \beta_3BDEFCIT + \beta_4EXRESV + \mu \dots \dots \dots 3$$

Where GDP is economic growth (gross domestic product), PUBDEBT is public debt, M2 is broad money supply, BDEFCIT is budget deficit, and EXRESV is external reserve of the country, while β_i is vector of coefficients

Data and Method of analysis

The data for this study are basically time series in nature source from secondary sources of the CBN statistical bulletin of 2020 volume from 1981 to 2020. The source of this data believes to be reliable and viable in producing good research outcome. In analyzing the data, we first of all convert all the data into a single digit. All variables were tested to confirm the absence or presence of unit roots problems using the Augmented Dickey-Fuller (ADF) method of unit root tests for the period under consideration. The outcome of this test determined the appropriate method of analysis used, whether classical least square, Autoregressive Distributed Lag or the Johansen Cointegration.

Result and Discussion

Table 4.1: Stationarity test result

Variables	ADF stats	ADF stats diff	CV level	CV diff.	Decision
LGDP	-4.5989		-2.9678		I(0)
LDMS	-3.0764		-2.9678		I(0)
LINFR	-2.3218	-4.4406	-2.9678	-2.9718	I(1)
LGFD	-1.1757	-5.3288	-2.9678	-2.9718	I(1)

The unit root test result shows that two of the data variables are stationarity after first difference while the other two are stationary at level. This reveals a mixed order of integration and the application of the classical least square will not produce an efficient and consistent estimate, rather a spurious analysis, hence, the best method of analysis is the Autoregressive and Distributed Lag (ARDL) model or the Bound test model. The test compares the ADF statistics and the 5% critical values and the decision rule is if the absolute value of the ADF statistics is greater than the CV value then we reject the null of unit root problem otherwise we accept. The variables data stationary at level are LGDP and LDMS while LGFD and LINFR are stationary at first difference. We therefore proceed with the bound test to check the existence of long run relationship between the variables as presented in table 4.1A. this test helps in critically evaluating the short- and long-term effects of interest rate determinants on interest rate in the economy.

Table 4.1A: Bound test

Null Hypothesis: No long-run relationships exist		
Test Statistic	Value	k
F-statistic	6.50	3
Lag Selection	(2, 3, 1, 1)	
Significance	I0 Bound	I1 Bound
5%	3.23	4.35

From the above result of the bound test, we discovered that the computed f-statistics of 6.50 is higher than the I1 (4.35) bound of 5 percent critical level. In other word the computed f-statistics falls within the rejection region, and as such the test is conclusive on the existence of long run relationship between the variables as established by Pesaran et al (2001). Thus, we reject the null hypothesis and conclude that there is long run relationship between fiscal deficit financing and macroeconomic performance. To validate this claim we proceed to estimate the long run and cointegration estimation given the fact that the model has met the necessary condition of stability and the estimated result are shown in table 4.1B below.

Table 4.1B: Cointegration and Long run result

Dependent variable		LGDP		
Model selected		ARDL (2, 3, 1, 1)		
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LGDP(-1))	-0.334572	0.197219	-1.696443	0.1092
D(LDMS)	0.005467	0.117929	0.046362	0.9636
D(LDMS(-1))	-0.015060	0.168474	-0.089392	0.9299
D(LDMS(-2))	0.317537	0.113501	2.797658	0.0129
D(LINFR)	0.042538	0.034640	1.228005	0.2372
D(LGFD)	-0.021385	0.016777	-1.274663	0.2206
CointEq(-1)	0.258709	0.154372	1.675876	0.1132
Long Run Coefficients				
LDMS	0.993997	0.091598	10.851753	0.0000
LINFR	-0.455939	0.197615	-2.307204	0.0347
LGFD	-0.152565	0.073474	-2.076450	0.0543
C	4.529043	0.906282	4.997389	0.0001

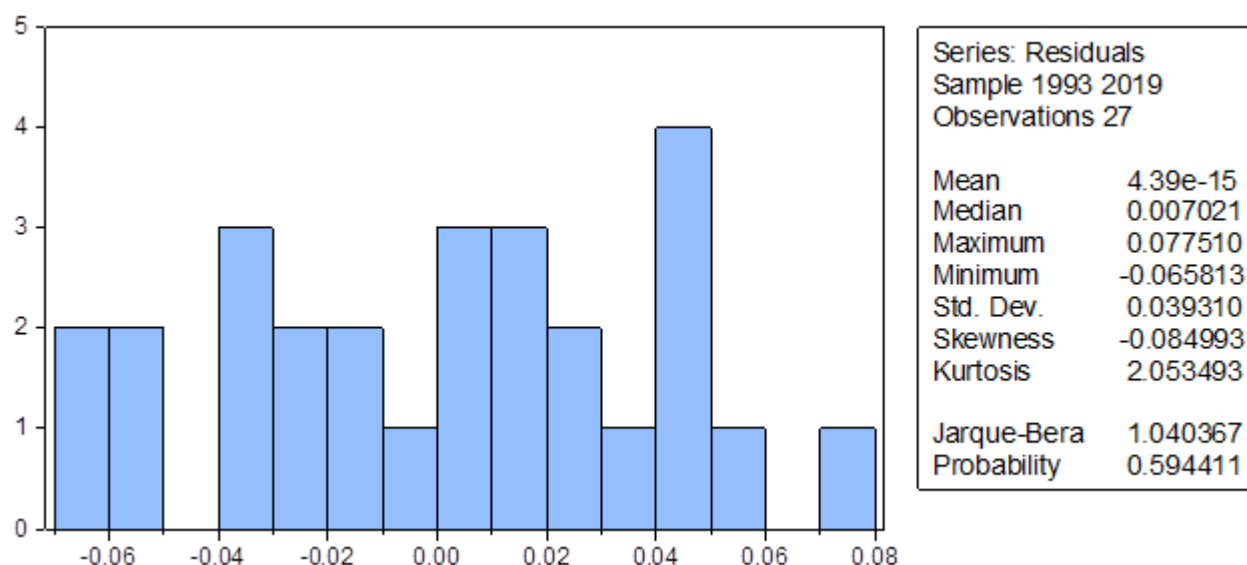
The estimated model above happens to be the best ARDL model selected from the pool of models with respect to lag selection. And the short run estimate reveals that deficit financing proxied by the selected variables, only the second lag of LDMS that has a positive and significant impact on the current macroeconomic performance of the Nigeria economy. This then implies that in reality the deficit financing of the national budget does not have a short term or immediate effects on the macroeconomy. This was further affirmed as none of the explanatory variables is statistically significant. The model estimated further fail the second condition of stability with the coefficient adjustment having the wrong sign (explosive divergence) and also insignificant at 5 % level. More so, the model shows that the current level of the economy has a positive relationship with domestic money supply and inflation, but negative relationship with government fiscal deficit.

The long run estimates have a positive intercept of 4.53, that without deficit financing the economy will still do great. One will then question the idea of continuous seasonal deficit financing of political fiscal abuse at the expense of the economy as rightly reveals by the short run estimates. This further negates the Keynesian postulates on the impact of deficit financing resulting from mismanagement of public fund. The result also reveals that in the long run, all the selected variables are stationary at 5% level of significant except for government fiscal deficit that is significant at 10% level. That validates the bound test result on the existence of long run relationship between the variables with domestic money supply

having a positive and significant effect while inflation rate and government fiscal deficit have a negative and significant effects on the economy. A unit change in these variables will induce the economic performance of the economy by 0.9940 for domestic money supply, -0.4559 for inflation and -0.1526 for government fiscal deficit.

Diagnostics Checks

Normality Test: The test shows that the error is normally distributed across the period under review, and that it disperses against the mean and the distribution of the items is asymmetrical. The Jarque-Bera normality test with value of 1.0404 and probability value of 0.5944 indicates the validation of the null hypothesis that the residuals are normally distributed as indicated in figure 4.1.



5.0 Conclusion and Recommendation

The study examined the impact of deficit finance on the macroeconomic performance of the economy with three specific objectives, examining the impact of domestic money supply, inflation rate and government fiscal deficit on economic growth in Nigeria. The study adopts the bound test model due to the mixed order of integration and we discovered that deficit financing has not impacted on the economy in the short run which contradict with theoretical postulate. However, it has a long terms effects on the economy as rightly reveals by bound test result and estimated long run equation. The findings of the study are in conformity with Aero and Ogundipe (2018), Musa (2021), on the ineffectiveness of deficit financing on the economy. There is need for macroeconomic administrator to be proactive, concise and decisive on the implementation of the midterm expenditure framework (MTEF) as regards to capital projects execution. Also, macroeconomic administrators should define the optimal fiscal intervention measures to foster macroeconomic productivity even as MDAs are mandated to adhere to the budgetary allocation and avoidance of misappropriation of public fund. Finally, there is need to reduce the ratio of fiscal deficit and GDP to 15 percent like in other climes within Africa.

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Appendices

Stationarity result

Null Hypothesis: LDMS has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=4)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-3.076420	0.0397
Test critical values: 1% level	-3.679322	
5% level	-2.967767	
10% level	-2.622989	

Null Hypothesis: LGDP has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=4)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-4.598887	0.0010
Test critical values: 1% level	-3.679322	
5% level	-2.967767	
10% level	-2.622989	

Null Hypothesis: LGFD has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=4)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-1.175709	0.6710

Test critical values: 1% level -3.679322
 5% level -2.967767
 10% level -2.622989

Null Hypothesis: D(LGFD) has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic - based on SIC, maxlag=4)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-5.328807	0.0002
Test critical values: 1% level	-3.689194	
5% level	-2.971853	
10% level	-2.625121	

Null Hypothesis: LINFR has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic - based on SIC, maxlag=4)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-2.321757	0.1722
Test critical values: 1% level	-3.679322	
5% level	-2.967767	
10% level	-2.622989	

Null Hypothesis: D(LINFR) has a unit root
 Exogenous: Constant
 Lag Length: 0 (Automatic - based on SIC, maxlag=4)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-4.440622	0.0016
Test critical values: 1% level	-3.689194	
5% level	-2.971853	
10% level	-2.625121	

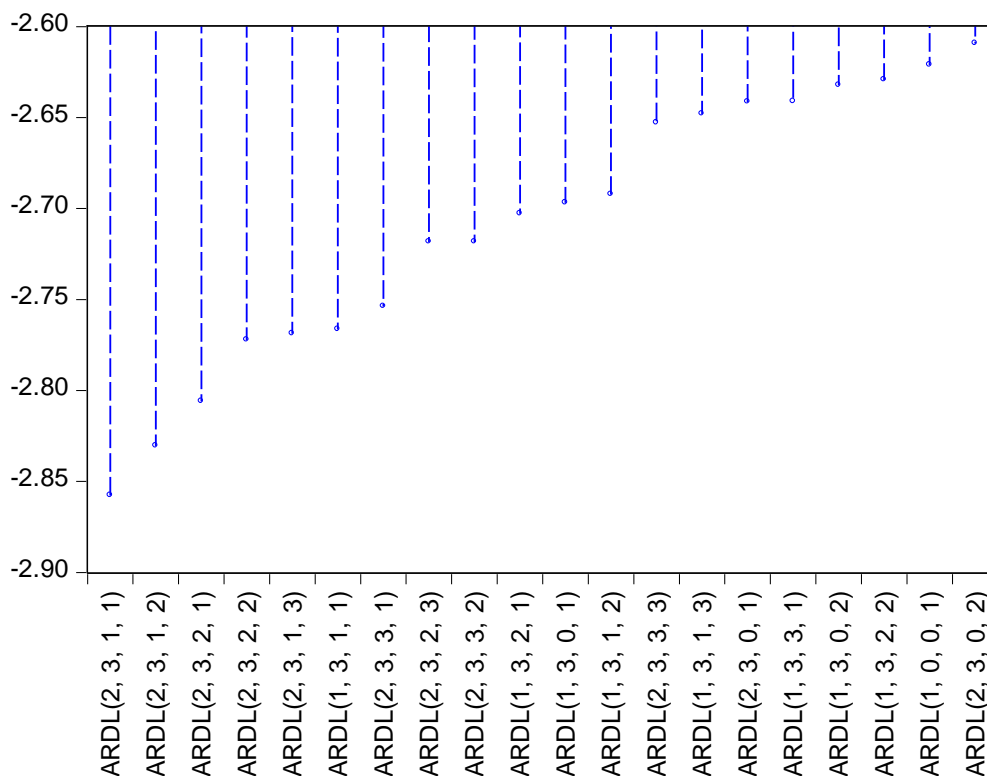
Dependent Variable: LGDP
 Method: ARDL
 Date: 04/17/22 Time: 07:41
 Sample (adjusted): 1993 2019
 Included observations: 27 after adjustments
 Maximum dependent lags: 2 (Automatic selection)
 Model selection method: Akaike info criterion (AIC)
 Dynamic regressors (3 lags, automatic): LDMS LINFR LGFD
 Fixed regressors: C
 Number of models evaluated: 128

Selected Model: ARDL(2, 3, 1, 1)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LGDP(-1)	0.924137	0.219224	4.215499	0.0007
LGDP(-2)	0.334572	0.197219	1.696443	0.1092
LDMS	0.005467	0.117929	0.046362	0.9636
LDMS(-1)	0.039853	0.176648	0.225608	0.8244
LDMS(-2)	0.015060	0.168474	0.089392	0.9299
LDMS(-3)	-0.317537	0.113501	-2.797658	0.0129
LINFR	0.042538	0.034640	1.228005	0.2372
LINFR(-1)	0.075417	0.032491	2.321195	0.0338
LGFD	-0.021385	0.016777	-1.274663	0.2206
LGFD(-1)	0.060856	0.014795	4.113200	0.0008
C	-1.171704	0.850703	-1.377337	0.1874

R-squared	0.999254	Mean dependent var	16.85671
Adjusted R-squared	0.998788	S.D. dependent var	1.439404
S.E. of regression	0.050110	Akaike info criterion	-2.857610
Sum squared resid	0.040177	Schwarz criterion	-2.329676
Log likelihood	49.57773	Hannan-Quinn criter.	-2.700627
F-statistic	2143.675	Durbin-Watson stat	2.687786
Prob(F-statistic)	0.000000		

Akaike Information Criteria (top 20 models)



ARDL Bounds Test

Date: 04/17/22 Time: 07:42
 Sample: 1993 2019
 Included observations: 27
 Null Hypothesis: No long-run relationships exist

Test Statistic	Value	k
F-statistic	6.499850	3

Critical Value Bounds

Significance	I0 Bound	I1 Bound
10%	2.72	3.77
5%	3.23	4.35
2.5%	3.69	4.89
1%	4.29	5.61

ARDL Cointegrating And Long Run Form

Dependent Variable: LGDP

Selected Model: ARDL(2, 3, 1, 1)

Date: 04/17/22 Time: 07:43

Sample: 1990 2019

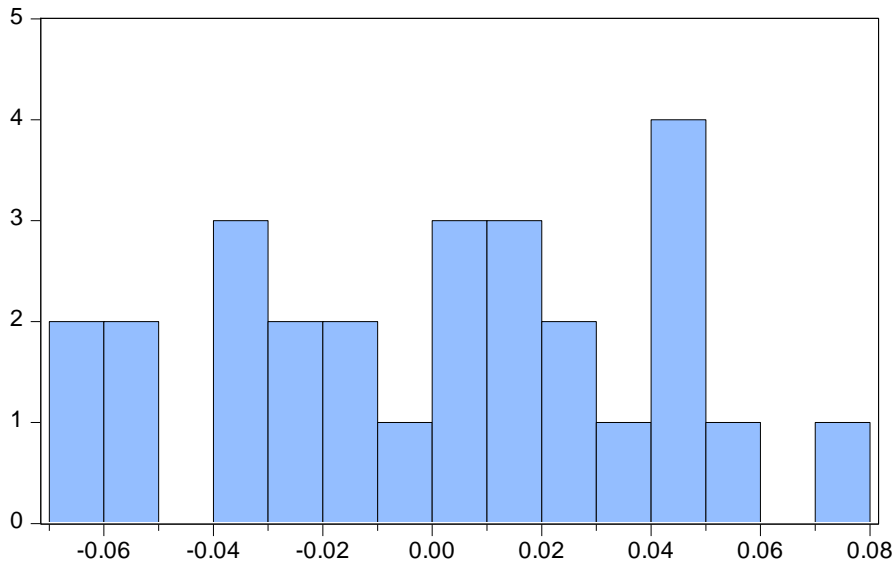
Included observations: 27

Cointegrating Form				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LGDP(-1))	-0.334572	0.197219	-1.696443	0.1092
D(LDMS)	0.005467	0.117929	0.046362	0.9636
D(LDMS(-1))	-0.015060	0.168474	-0.089392	0.9299
D(LDMS(-2))	0.317537	0.113501	2.797658	0.0129
D(LINFR)	0.042538	0.034640	1.228005	0.2372
D(LGFD)	-0.021385	0.016777	-1.274663	0.2206
CointEq(-1)	0.258709	0.154372	1.675876	0.1132

$$\text{Cointeq} = \text{LGDP} - (0.9940 \cdot \text{LDMS} - 0.4559 \cdot \text{LINFR} - 0.1526 \cdot \text{LGFD} + 4.5290)$$

Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LDMS	0.993997	0.091598	10.851753	0.0000
LINFR	-0.455939	0.197615	-2.307204	0.0347
LGFD	-0.152565	0.073474	-2.076450	0.0543

C 4.529043 0.906282 4.997389 0.0001



Series: Residuals	
Sample 1993 2019	
Observations 27	
Mean	4.39e-15
Median	0.007021
Maximum	0.077510
Minimum	-0.065813
Std. Dev.	0.039310
Skewness	-0.084993
Kurtosis	2.053493
Jarque-Bera	1.040367
Probability	0.594411