International Journal of Accounting Research, 9(1),2024, 37-39
ISSN: 2617-9954
Open Access Journal
International Journal of Accounting Research
Research Article Homepage: www.j.arabianjbmr.com AOJP

Empirical analysis of impact of deficit budget on economic growth of Nigeria from 1991 to 2021

Onoh Chukwunonso Francis
National Open University of Nigeria. Corresponding Email: ffecooh@gmail.com or conoh@noun.edu.ng
Ugwu Emmanuel Ekene
National Open University of Nigeria. Email: emmanuelmichael540@gmail.com
Agu Fortune Nneka
National Open University of Nigeria. Email: fagu@noun.edu.ng

ABSTRACT

The research examined Empirical Analysis of Impact of Deficit Budget on Economic Growth of Nigeria from 1991-2021 using ARDL method the result shows that a unit change in budget deficit (BD) will lead Gross Domestic Product (GDP) to increase by 0.000172 in the short –run and also increase by 0.000191 in the long run. A unit change in Inflation (IF) will lead Gross Domestic Product (GDP) to decrease by 0.095251 in the short –run and also decrease by 0.105623 in the long –run, the ECM is -0.901805, which means that the speed of adjustment in the short run is 90%, and it is statistically significant at 0.0001.The research concluded that there is need for government to cut capital flight in Nigeria by means of developing industries to increase import substitution program in the nation

ARTICLE INFO

Keywords:
budget, Deficit, Economics, Finance, Debt, Economic Growth

Article History:
Received: 11 Mar 2024
Accepted: 21 Jun 2024
Published: 10 Aug 2024

1. INTRODUCTION

According to Aniakor (2018), deficit financing occurs when expected expenses exceed expected revenues. Because of this regime, we are forced to borrow money from either internal or external sources, depending on what the government deems to be the best course of action. Governments have two options for making up this deficit: using up their accumulated funds or borrowing from the financial sector, particularly the nation's central bank. A well-known fiscal policy tool for raising a nation's economic production is a budget deficit. Following the civil war, the oil crisis, and the current financial and economic issues, the deficit was implemented in Nigeria as a financing strategy. Over 85% of Nigeria's budget since independence is in deficit. Nevertheless, a sizable section of Nigeria's population continues to live in chronic poverty, with high mortality rates and low malnutrition rates due to the country's challenging access to standards, despite significant increases in government spending over the years. As long as life expectancy remains high, expected levels of economic progress have not been reached. Health facilities, inadequate road systems, a lack of food, and shamefully high unemployment Monogbe and Momodu (2017). According to Adesina and Olatise's (2019), if a government chooses to run a budget deficit, it will have to devote money to excess spending in order to close the difference between spending and income. Usually, both internal and foreign sources are used to finance fiscal shortfalls. Printing money, using up foreign exchange reserves, and borrowing on both domestic and international markets are among ways that fiscal deficits might be financed. It is on this background that this study is set out to investigate the impact of deficit budget on economic growth of Nigeria with data captured from 1991-2021.

1.1 Research Questions

- What is the impact of deficit budget on economic growth of Nigeria?
- What is the causality relationship between budget deficit and economic growth in Nigeria?

1.2 Objectives of the Study

The general aim of the research work is to determine the impact of deficit budget on economic growth of Nigeria economy.

The specific objectives are;

- To examine the impact of budgetdeficit on economic growth of Nigeria.
- To find out the causality relationship between budget deficit and economic growth in Nigeria.

1.3 Research Hypothesis

H_o1: There is no significant impact of budget deficit on economic growth of Nigeria

H_o2**:** There is no causality relationship between budget deficit and economic growth in Nigeria.

2. LITERATURE REVIEW

Angahar, Inyang, and Odiba (2022), examined Nigeria's deficit budgeting and economic growth. The study's findings indicate that the government should be more transparent in its fiscal operations in order to achieve deficits that are reasonable given the relationship between inflation and Nigeria's budget deficit. Nigeria's budget deficits should be used to fund projects that will boost productivity, such constructing roads and supplying power, by attracting in foreign direct investments. Using the ARDL technique, Yusuff and Abisoye (2020) investigated how budget deficits affect the expansion of emerging economies' economies. The study found that while interest rates, fiscal deficits, and gross domestic savings are all substantially connected with economic growth over the long run, the short-term effects of fiscal deficits and gross domestic savings are more favorable. The relationship between Nigeria's budget deficit and economic growth was examined by Nwanna and Umeh (2019). They used the Ordinary Least Square (OLS) estimation method along with the Augmented Dickey Fuller (ADF) unit root test, Johansen Co-integration test, and normality test. The findings show that international debt has a significant positive impact on Nigeria's economic growth whereas local debt has a significant negative impact. On the other hand, debt service has little impact on economic growth. Oluwafadekemi and Adeyemi (2018) assessed the impact of budget deficits on Nigeria's economic growth. The ideal level of the budget deficit was established using the study's Threshold Autoregressive model. According to the analysis, a 5% threshold level with a one-year lag is beneficial for Nigerian economic growth. Given the existing circumstances, it is clear that recurring fiscal deficits have been a characteristic of the Nigerian economy and have prevented the nation's economy from flourishing. The consequences of Nigeria's budget deficit on the country's economy were studied by Fagbohun (2017). The budget deficit and foreign currency reserves both have a positive and considerable impact on the per capita income, whereas the policy rate and money supply have an indirect but little impact, according to the results of the least-squares technique. Sadly, Nigeria's foreign exchange reserves, money supply, and budget deficit do not lead to growth that raises the employment rate in the nation.

3. METHOD OF EVALUATION

The study will make use of multiple regression analysis method. Firstly, it will test the stationarity properties of the variables using ADF unit root test technique. Then it will incorporate bound testing co-integration test to assess the long –run relationships between the variables, this will be followed by ECM. To determine whether one time series is useful in forecasting another, Granger causality test will be carried out

3.1 Model Specification

In this study, we adopted the statistical method of multiple regression approach. The functional relation of the model is given as:

GDP= f (BD, IF)..................... (1)

The Econometrics model is specified as follows:
$GDP = \beta 0 + \beta_1 BD + \beta_2 IF + \mu$............ (2)
Where: GDP=Gross Domestic product growth Rate
BD = Budget Deficit (Expenditure-Revenue)
IF = Inflation (Control Variable)
β_0, β_1, and β_2 = parameters and μ = Stochastic Error term
Apriori expectations are: β_1 and β_2 >.0

3.2 The Bound cointegration test model:

$$\Delta GDP_t = c + \sum_{i-1}^{P} \alpha 1i\, \Delta GDP\, t-i + \sum_{i-0}^{p} \alpha 2i\, \Delta\, BD\, t-i + \sum_{i-0}^{p} \alpha 3i\, \Delta\, IF\, t-i + \beta_1 GDP_{t-1} + \beta_2 BD_{t-1} + \beta_3 IF_{t-1} + \varepsilon_t$$

3.3 The Error Correction Mechanism

$$\Delta GDP_t = c + \sum_{i-1}^{P} \alpha 1i\, \Delta GDP\, t-i + \sum_{i-0}^{p} \alpha 2i\, \Delta\, BD\, t-i + \sum_{i-0}^{p} \alpha 3i\, \Delta\, IF\, t-i + \beta_1 GDP_{t-1} + \beta_2 BD_{t-1} + \beta_3 IF_{t-1} + ECM(-1) + \varepsilon_t$$

3.4 Granger Causality

Granger causality test is a statistical test conducted to test the predictive properties of a variable over the other.

$$GDP_t = \beta_0 + \sum_{i=1}^{n} \beta_1 BD_{t-1} + \sum_{i=1}^{n} \beta_2 IF_{t-2} + \sum_{i=1}^{n} \beta_3 GDP_{t-3} + \mu_{1t} \ldots\ldots\ldots 3.5.1$$

$$BD_t = \beta_0 + \sum_{i=1}^{n} \beta_1 BD_{t-1} + \sum_{i=1}^{n} \beta_2 IF_{t-2} + \sum_{i=1}^{n} \beta_3 GDP_{t-3} + \mu_{2t} \ldots\ldots\ 3.5.2$$

$$IF_t = \beta_0 + \sum_{i=1}^{n} \beta_1 BD_{t-1} + \sum_{i=1}^{n} \beta_2 IF_{t-2} + \sum_{i=1}^{n} \beta_3 GDP_{t-3} + \mu_{3t} \ldots\ldots\ldots 3.5.3$$

Decision Rule: If the computed F value exceeds the critical F value at the chosen level of significance, we reject the null hypothesis; otherwise, we do not reject it.

4. EMPIRICAL RESULTS

The Augmented Dickey Fuller (ADF) test is employed in order to analyze unit roots.

4.1 Unit root test

Table 1. The Augmented Dickey Fuller (ADF) test

Variables	ADF Test Statistics	5% Critical value	Order of integration
GDP	-4.081273	-3.568379	I(0)
BD	-3.719153	-3.568379	I(0)
IF	-5.130930	-3.603202	I(1)

The Augmented Dickey Fuller (ADF) test for stationarity at 5% level of significance showed that in GDP and BD, there is no unit root problem as the variables are stationary at levels form. In IF variable, there is unit root problem in the variable as it is not stationary at level form however it became stationary after first difference.

4.2 Test of Cointegration

To test for cointegration among the variables, since we have mixture of I(0) and I(1),we will use Bounds Testing Approach.

ARDL Bounds Test
Date: 02/05/23 Time: 22:00
Sample: 1992 2021
Included observations: 30
Null Hypothesis: No long-run relationships exist

Test Statistic	Value	k
F-statistic	6.095690	2
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	3.17	4.14
5%	3.79	4.85
2.50%	4.41	5.52
1%	5.15	6.36

Bounds Testing cointegration was carried out using Eviews 9. statistical software package, from the result , F-statistic value of 6.095690 is greater than I0 (3.79) Bound at 5% level of significance and the upper bound I1(4.85) Bound at same level of significance. Since the condition for accepting bound test for long-run relationship is that the F-statistic value must be greater than the lower bound and the upper bound at the chosen level of significance, hence there is long run relationship between the variables. Since the variables are cointegrated on the long run, we therefore estimate the ECM.

4.3 Regression Model

ARDL Cointegrating And Long Run Form
Dependent Variable: GDP
Selected Model: ARDL (1, 0, 0)
Date: 02/05/23 Time: 22:02
Sample: 1991 2021
Included observations: 30

Cointegrating Form				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(BD)	0.000172	0.000099	1.748793	0.0921
D(IF)	-0.095251	0.068816	-1.384138	0.1781
CointEq(-1)	-0.901805	0.18987	-4.749603	0.0001
Cointeq = GDP - (0.0002*BD -0.1056*IF + 7.6199)				
Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
BD	0.000191	0.000103	1.86077	0.0741
IF	-0.105623	0.073481	-1.437412	0.1625
C	7.61992	1.949305	3.909044	0.0006

4.4 Discussion of the Results

(i) From the estimation result, a unit change in budget deficit (BD) will lead Gross Domestic Product (GDP) to increase by 0.000172 in the short –run and also increase by 0.000191 in the long run. Hence, we can establish that there exist a positive relationship between the regressor and the regressand.

(ii) A unit change in Inflation (IF) will lead Gross Domestic Product (GDP) to decrease by 0.095251 in the short –run and also decrease by 0.105623 in the long –run, hence there is a negative relationship between the dependent variable and the independent variable.

(iii) The Error Correction mechanism (ECM) which indicates the speed of adjustment has a negative sign; this is expected because it signals acceptability of the model and proper specification. From the result of the model presented above, the ECM is -0.901805, which means that the speed of adjustment in the short run is 90%, and it is statistically significant at 0.0001.

4.4.1 Granger Causality test

Pairwise Granger Causality Tests
Date: 02/05/23 Time: 22:03
Sample: 1991 2021
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
BD does not Granger Cause GDP	29	0.75348	0.4815
GDP does not Granger Cause BD		1.62575	0.2177
IF does not Granger Cause GDP	29	0.10328	0.9023
GDP does not Granger Cause IF		0.52921	0.5958
IF does not Granger Cause BD	29	0.84660	0.4413
BD does not Granger Cause IF		0.19639	0.823

Interpretation of the Granger Causality Test: From the Granger causality result shown, there is no causality relationship between Gross Domestic Product, Budget Deficit and Inflation, hence we fail to reject the second null hypothesis which stated that there is no Causality relationship between Budget deficit and Economic Growth in Nigeria.

5. RECOMMENDATIONS

Even though there is enough empirical evidence from the regression result that budget deficit has a positive relationship with Gross Domestic Product a proxy for economic growth, but the positive relationship is not significant enough, hence there is need for government to cut capital flight in Nigeria by means of developing industries to increase import substitution program in the nation, such will make any added capital to the Nigerian economy to circulate in the economy and have positive multiplier effect which will trigger economic growth and by extension economic development. The non-existence of causality relationship between Gross Domestic product and Budget deficit means that the aim of extensive borrowing in Nigeria to expand the economy is not achieved. Hence there is a need to government to invest the borrowed funds on projects that will yield revenue needed to pay back to the lender and buoy the economy. It also goes a long way to show that the cost of debt services is having a toll on the economy and that the government is also borrowing money to service debts of other sources and not to invest the money hence the non-predictive power of budget deficit on the economy. Therefore, Government should not just borrow fund randomly, but funds should be tied to a specific revenue yield project before borrowing.

REFERENCES

Adeneye, O. A. and Isa, A. M. (2016). The impact of budget deficit on the Nigerian economic growth, 1983 – 2014. *Journal of Economics and Sustainable Development*7(14):1-11.

Adesina, O. D. &Olatise, F. A. (2019). Effect of government deficit budgeting and financing strategies on economic growth in Nigeria.Journal of Economics & Finance 3(1):48-63.

Adesina, O. D., and Olatise, F. A. (2019). Effect of government deficit budgeting and financing strategies on economic growth in Nigeria. *Journal of Economics &Finance*3(1):48-63.

Akamobi, O. G., and Unachukwu, I. B. (2021). Macroeconomic effects of budget deficit in Nigeria. *European Journal of Economic and Financial Research*4(4):128-153.

Akinmulegun, S. O. (2014). Deficit financing and economic growth inNigeria: A preliminary investigation. *British Journal of Economics, Management & Trade* 4(11):1624-1643.

Angahar S. J., Inyang, H. B. &Odiba, E. (2022). Deficit budgeting and economic growth in Nigeria. Pp.1-19.

Aniakor, C. C. (2018). Monetary economics theory and policy. 1st Edition, KLAP Publisher, Enugu. Pp.1-332.

Eze, O. R. and Ogiji F. O. (2016). Impact of deficit financing on economic stability in Nigeria: Analysis of economic growth. *Journal of Applied Finance & Banking,* 6(1):111-125.

Ezeanyeji, Imoagwu&Ejefobihi (2019). Public Debt and inflation in Nigeria: An econometric analys is. *International Journal of Applied Research*5(3), 219-224.

Fagbohun, A. (2017). The economic performance of budget deficit in Nigeria. *Research Journal of Finance and Accounting*8(8):128-135.

Mohammed, I. G. 1 &OgbaLikita J. (*2021)*. An Evaluation of Budget Deficit on Economic Growth in Nigeria: Empirical Evidence.*Lafia Journal of Economics and Management Sciences* 6(2) :1-15.

Momodu, A. A., Monogbe, T. G. (2017). Budget deficit and economic performance in Nigeria. *Saudi Journal of Business and Management Studies*2(3B):312-321.

Nwaeke, G. C. (2016). Budget deficit financing and the Nigeria economy.*European Journal of Business and Management*8(22):206-214.

Nwanna, I. O. &Umeh, G. N. (2019). Deficit financing and economic growth: The Nigerian experience. *International Journal of Economics and Financial Management*4(1):28 - 49.

Ofoegbu, G. N, Akwu, D. O. and Oliver (2016). Empirical analysis of effect of tax revenue on economic development of Nigeria. *International Journal of Asian Social Science*6(10):604-613.

Ofoegbu, G. N, Akwu, D. O. and Oliver (2016). Empirical analysis of effect of tax revenue on economic development of Nigeria. *International Journal of Asian Social Science*6(10):604-613.

Ogunbiyi, S. S. and Okoye, N. F. (2016). Fiscal Policy and Economic Growth: The Nigerian Experience (1970-2014). *Journal of Accounting and Financial Management*2(6):50-60.

Oladipo S. O. andAkinbobola T. O. (2011). Budget Deficit and Inflation in Nigeria: A Causal Relationship.Journal of Emerging Trends in Economics and Management Sciences2(1):1-8.

Oladipo, S. O and Ajisafe, R. A (2015). Dynamic interactions among budget deficit, economic growth and poverty level towards capacity building strategy for sustainable development and poverty alleviation in Nigeria (1980-2012). *Journal of Emerging Trends in Economics and Management Sciences*6(7):169-174.

Oluwafadekemi, A.&Adeyemi, A. O. (2018). Fiscal deficit and economic growth in Nigeria: ascertaining a feasible threshold.*International Journal of Economics and Financial Issues* 8(3):296-306.

Onwuka, I. (2022). Budget deficit, inflation and economic growth in Nigeria: An empirical analysis. *International Journal of Economics and Financial Research*8(1): 1-14.

Osuka,B.O and Achinihu J.C (2014).The impact of budget deficits on macro-economic variables in the Nigerian economy (1981 – 2012). *International Journal for Innovation Education and Research* 2(11):164-183.

Ozurumba, B.A (2012). Fiscal Deficits and Inflation in Nigeria: The Causality Approach. International Journal of Scientific & Technology Research 1(8):6-12.

Udeh, O.S (2005). *The Theory and Management of Public Finance*. 1st Edition, Malik Enterprises Nigeria, Enugu, Pp.1-304.

Yahaya,K. A. &Bakare, T. O. (2018) Effect of petroleum profit tax and companies income tax on economic growth in Nigeria. *Journal of Public Administration, Finance and Law* 13(1):100-121.

Yusuff, S. A., & Abolaji, A. (2020). The impact of budget deficit on economic growth in an emerging market: An application of the ARDL technique. *Asian Development Policy Review*, *8*(4), 351-361.