
AN ANALYSIS OF THE IMPACT OF FISCAL POLICY ON ECONOMIC DEVELOPMENT IN NIGERIA

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Abstract

The quest for economic development has been the preoccupation of developing nations, Nigeria inclusive. The process involves the coordination of macroeconomic indices using different policy instruments of which fiscal policy is one. However, the conduct of macroeconomic environment in Nigeria is characterized by a lot of instabilities, inconsistencies and uncertainties which are constraints to the attainment of economic development, hence the need to examine the impact of fiscal policy in coordinating macroeconomic indices toward economic development in Nigeria. Total government revenue and total government expenditure were regressed on real GDP. Employing OLS technique, the results showed that though fiscal policy influences the level of economic development in Nigeria due to the significant impact of both total government revenue and total government expenditure on real GDP. However, the size of the coefficient of total government expenditure (2.709013) is less than that of total government revenue (2.875000) which may be attributed to factors such as over invoicing of government contract and expenditure on non-economic goods and services amongst others. The paper finally recommended the need for fiscal discipline in government expenditure in order to improve its impact on economic development in Nigeria.

Keyword: Fiscal Policy, Economic Development, Real GDP, Government Revenue, Government Expenditure.

1.0 INTRODUCTION

The role of fiscal policy on economic development cannot be overemphasized. The major macroeconomic goals of every economy like Nigeria is stability in the balance of payment, price stability, full employment level, stability in economy growth, external debt regulation and equitable distribution of income among others. These goals are achieved through the fiscal policy whether neutral, expansionary or contractionary. Jhingan (2005) has argued vigorously that for growth and development in the less developed countries like Nigeria, fiscal policy is generally more effective than monetary policy. This according to him is due largely to the nature of our monetary institutions and markets which are poorly developed and the presence of various structural rigidities such as immobility of factors of production among regions as well as imperfect market structures.

The conduct of fiscal policy over time has seen an unprecedented and continuous increase in the nation's national budget as a result of the oil boom since 1981. This has invariably increased the revenue base of the government as well as the expenditure pattern of government. This study is necessitated by a genuine desire to appraise the impact of fiscal policy – government revenue and government expenditure on the economic development in Nigeria. To this end, the research will provide answers to the following questions:

- a. Does government revenue have impact on the economic development in Nigeria?
- b. Does government expenditure have impact on Nigeria's economic development?

Thus, the main objective of this study is to examine the impact of fiscal policy on economic development in Nigeria which would be achieved through the following specific objective:

- i. to examine the impact of government revenue on economic development in Nigeria
- ii. to examine the impact of government expenditure on Nigeria's economic development

The study focused on past fiscal policies with emphasis on government revenue and government expenditure and how it has impacted on the economic development of Nigeria. The study covers the period 1981 – 2021 which characterized the period of increased government revenue and government expenditure due to oil boom. However, the research has several limitations which include time, cost and inadequate data for analysis. Notwithstanding these limitations, the researcher made best use of the available data.

2.0 LITERATURE REVIEW

2.1 Conceptual Clarification

Fiscal policy is concerned with the government revenue and government expenditure (Anderson, Renzion & Levey 2006: Kalra, 2006: Obi, 2007). Bulus (2006), defined fiscal policy as the overall effect of budget outcome on economic activity. Fiscal policy encompasses any decision to change the level, composition or timing of government expenditure or to vary the burden, structure or frequency of tax payment (Chemingui, 2007: Keefer & Khemani, 2004: Ogboru, 2006: Patemostro, Rajaram & Tiogson, 2007).

Fiscal policy is seen in this study as a set of government action designated to influence the level of economic activity through changes in the level of government revenue and government expenditure.

Economic Development is defined as a sustainable improvement in living standards that encompass material consumption, education, health, and environmental protection (Abiola, 2008; Kraay, 2002; Leautier & Hanson, 2013; Ojameruaye, 2008; Onuioduokit, 2002). The overall goal of development is therefore to increase the economic, political and civil rights of all people across gender, ethnic groups, religions, races, regions and countries (World Bank, 1996). Economists have traditionally considered an increase in income to be a good proxy for other attributes of development. But the weakness in income growth as an indicator is that it may mask real changes needed for foods, education, healthcare and equity of opportunity. Civil liberties and environmental protection are not captured by statistics of income growth. Although different cultures places different values on the various elements of development broadly defined, most seek improvements in every dimension. Many of the indicators used to measure progress (infant mortality, school enrolment, gender equality indication, indexes of political freedom e.t.c.) are correlated with income.

When a country invests in education, it is a productive investment, because an educated labour force is a source of productivity. Abubakar (1985), states that “to be educated means nothing if the educated ones do not enjoy food, health, decent housing, psychological stability and cultural fulfillment. It can also be added that education means nothing if the educated person cannot have good job to feed, develop, access good health system and sustains ones standard of living. This implies that for development to exist, these aspects of people’s lives must be improved and sustained. This according to Anyawu (1997) is called multi-dimensional development.

Abimiku (2000) argued that economic development is the process of increasing real income of an economy accompanied by reduction in inequalities of income and the attainment of preferences of the entire masses. It was in the light of this that Amakon (2008) refers to economic development as the problem of underdeveloped countries. According to him, the raising of income level is call economic development in poor nations. Hence, economic development in this study is seen as an increase in real income which can be sustained over a long period of time.

2.2 Theoretical Framework

Fiscal policy was invented by John Maynard Keynes during the great depression of the 1930s. Keyne’s theory asserted that some microeconomic actions of individuals and firms can lead to aggregate macroeconomic outcomes in which the economy operates below its potential output growth (Jhingan, 2005). Hence this study adapt a Keynesian theory which advocates for state intervention in the economic management so as to attain full employment against cyclical recession or depression which is in contrast to the classical economic theory which believes in the said law.

2.3 Trend Analysis

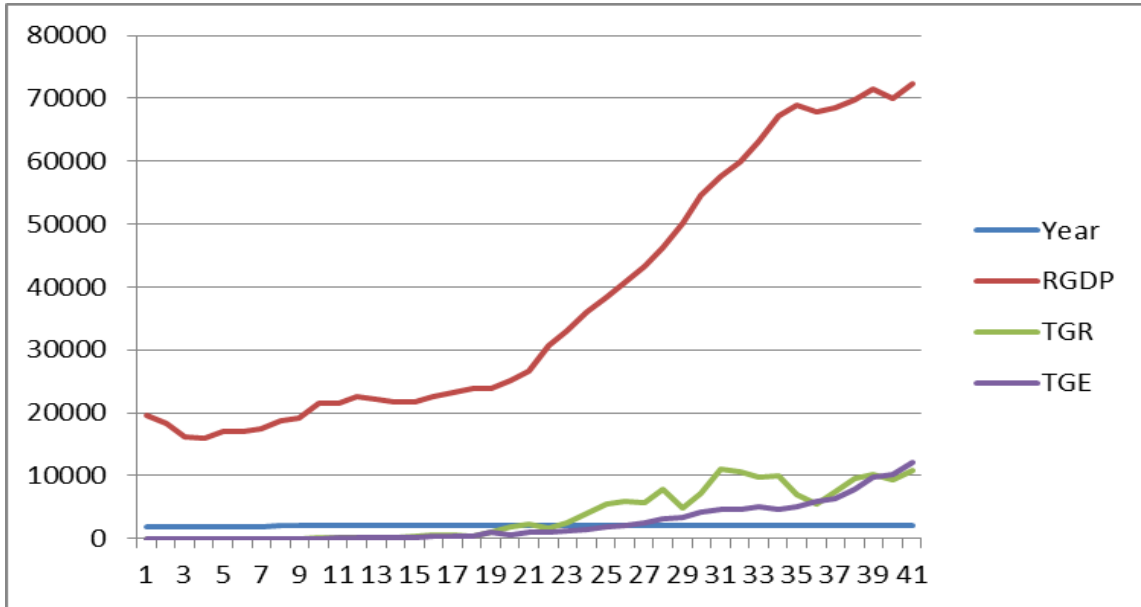


Figure 1: Trend of Nigeria's real Gross Domestic Product (RGDP) – GDP at 2010 Constant Basic Prices, Total Government Revenue (TGR) and Total Government Expenditure (TGE), 1981 – 2021 (₦ Billion).

Source: CBN Statistical Bulletin, 2010, 2021.

Since the oil boom of 1981, the revenue base and the expenditure pattern of government as well as the real Gross Domestic Product (real GDP) in Nigeria has been on the rise. However, these increases became unprecedented as from the 19th year (1999) as a result of the returned to democratic government with consequential introduction of various reforms policies, programmes and development strategies (Abdullahi, Ari & Iliya 2016).

3.0 METHODOLOGY

3.1 Research Methods and Sources of Data

The research work adopted the empirical method of analysis where econometrics techniques – Unit root test and Ordinary Least Square Multiple Regression Techniques were employed in analyzing the impact of fiscal policy on economic development in Nigeria. To do this, fiscal policy is decomposed into total Government Revenue and total Government Expenditure while economic development is represented by real GDP. The study used secondary sources of data where information were obtained from CBN Statistical Bulletin/Publications, Seminar Paper, Journal Articles, documents from the Federal Office of Statistics, Federal Ministry of Finance, Budget Office of the Federation, Textbooks, Newspapers, Magazines amongst other. Data on total Government Revenue and total Government Expenditure from 1981 to 2021 were regressed on real GDP using E-views 7.

3.2 Model Specification

The relationship between fiscal policy and real GDP is specified in mathematical form. A multiple regression model based on Ordinary Least Squares (OLS) was used in the estimation of parameters. The model specified that real GDP denoted by (RGDP) is the

dependent variable while total Government Revenue (TGR) and total Government Expenditure (TGE) are independent variables. The model is thus:

$$RGDP = \beta_0 + \beta_1 TGR + \beta_2 TGE + U_1$$

Where RGDP = real Gross Domestic Product

TGR = total Government Revenue

TGE = total Government Expenditure

β_0 = Intercept of the model

β_1 = Coefficient of total Government Revenue

β_2 = Coefficient of total Government Expenditure

U_1 = Error Term

The above model implies that real Gross Domestic Product (Real GDP) is the function of government revenue and government expenditure. The model is a multiple linear regression in which government revenue and government expenditure are the explanatory variables. The coefficients β_1 and β_2 are expected on apriori ground to be positive. This implies that other things being equal, real GDP increases with increase in government revenue and government expenditure.

3.3 Hypothesis

Two set of hypotheses that were tested for this study are:

Ho₁: Government revenue has no significant impact on real GDP.

Ho₂: Government expenditure has no significant impact on real GDP.

3.4 Model Estimation and Interpretation of Results

3.4.1 Unit Root Test

The Augmented Dickey Fuller (ADF) Test is employed to test the stationarity or otherwise of the variables in the model and the possibility of co integration among the variables.

Table 3.1: The Augmented Dickey Fuller (ADC) Test Result

Variable	ADF Test Statistic	1% Critical Value	5% Critical Value	10% Critical Value	Decision
TGR	-3.751271**	-4.205004	-3.526609	-3.194611	I(0)
TGE	-4.443949*	-4.243644	-3.544284	-3.204699	I(0)
RGDP	-3.337089***	-4.234972	-3.540328	-3.202445	I(0)

Note *, (**) (***) stand for significant at 1%, (5%) and (10%) respectively.

Decision Rule: If ADF test statistic is less than critical value, reject Ho and conclude that the variable is stationary otherwise accept Ho.

The result of ADF test in table 3.1 shows that TGR, TGE, and RGDP are individually stationary at level I(0) at their respective level of significance as such there is no need to conduct a co integration test, hence ordinary Least Square (OLS) is the suitable estimation technique.

3.4.2 Ordinary Least Square (OLS) estimation

For the estimation of the model, we expect the assumption of ordinary Least Square (OLS) to hold. This has aided in determining the extent to which independent variables (TGR and TGE) explain the dependent variable (RGDP).

Table 3.2: Regression Result

Dependent Variable: RGDP

Method: Least Squares

Date: 05/02/23 Time: 22:09

Sample: 1981 2021

Included observations: 41

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	20085.45	1129.583	17.78130	0.0000
TGR	2.875000	0.428134	6.715191	0.0000
TGE	2.709013	0.542898	4.989916	0.0000
R-squared	0.936647	Mean dependent var	37710.48	
Adjusted R-squared	0.933313	S.D. dependent var	20309.83	
S.E. of regression	5244.788	Akaike info criterion	20.03821	
Sum squared resid	1.05E+09	Schwarz criterion	20.16360	
Log likelihood	-407.7834	Hannan-Quinn criter.	20.08387	
F-statistic	280.9072	Durbin-Watson stat	0.669270	
Prob(F-statistic)	0.000000			

From the regression result in table 3.2, the estimated model is presented below:

$$RGDP = 20085.45 + 2.875000TGR + 2.709013TGE$$

$$(1129.583) \quad (0.428134) \quad (0.542898)$$

$$(17.78130) \quad (6.715191) \quad (4.989916)$$

$$R^2 = 0.937,$$

$$\text{Adjusted } R^2 = 0.933$$

$$\text{Durbin Watson} = 0.669$$

Interpretation of Result

The value of the intercept (B_0) is 20085.45, the coefficient of TGR (β_1) is 2.875000 and the coefficient of TGE (β_2) is 2.709013.

Test of Significance of Parameters using Probability values**Decision Rule:**

If P. Value < 0.01, Significant at 1%

If P. Value < 0.05, Significant at 5%

If P. Value < 0.1, Significant at 10%

Source: (Gujarati, 2004)

From the regression result, since the probability value of β_1 (0.0000) < 0.01, we reject H_{01} and conclude that total Government Revenue (TGR) has a significant impact on real GDP (RGDP) at 1% level of significance.

From the regression result, since the probability value of β_2 (0.0000) $<$ 0.01, we reject H_{02} and conclude that total Government Expenditure (TGE) has a significant impact on real GDP (RGDP) at 1% level of significant.

Test of Predictive Power of the Model

From the results of multiple regressions, R^2 is the coefficient of multiple determination which measures the proportion of the variation in the depended variable (RGDP) which is explained by joint changes in independent variables (TGR and TGE). In the regression, the R^2 is 0.937, which implies that 93.7% of the total variation in RGDP is explained by the coefficient of TGR and TGE. This shows a strong relationship between dependent variable and the independent variables. This further implies that only 6.3% of the variation in RGDP is explained by the stochastic variables.

Adjusted R^2 corrects the under-magnification of R^2 as more variables are introduced into the model. This gives us some ideas of how well our model generalizes and ideally we would like its value to be the same or very close to the value of R^2 . From our regression results, $R^2 = 0.937$, and adjusted $R^2 = 0.933$, which is close to the R^2 . This implies that the relationship between the variables is strong.

Test of Autocorrelation Using Durbin Watson test

DW = 0.669

$d_L = 1.391$

$d_U = 1.600$

Where DW = Durbin Watson, d_L = lower case Watson and d_U = upper case Watson.

Decision Rule:

1. If $DW < d_L$, we reject the null hypothesis of no autocorrelation and accept that there is a positive autocorrelation of the first order.
2. If $DW > (4 - d_L)$, we reject the null hypothesis of no autocorrelation and accept that there is a negative autocorrelation of the first order.
3. If $d_U < DW < (4 - d_U)$, we accept the null hypothesis of no autocorrelation.
4. If $d_L < DW < d_U$ or if $(4 - d_U) < DW < (4 - d_L)$, the test is inconclusive.

Source: (Koutsoyanis, 2004)

From our regression result, it could be seen that $DW < d_L$ ($0.669 < 1.391$), so we reject the null hypothesis and conclude that there is positive autocorrelation of the first order.

Test of Significance of the Regression Equation Using F – test

Decision Rule:

If $\text{prob}(F\text{-Statistic}) < 0.01$, Significant at 1%

If $\text{prob}(F\text{-Statistic}) < 0.05$, Significant at 5%

If $\text{prob}(F\text{-Statistic}) < 0.1$, Significant at 10%

Source: (Gujarati, 2004).

From the regression result, since the $\text{prob}(F\text{-Statistic} - 0.000000) < 0.01$, it shows that F-Statistic (280.9072) is significant which implies that the model is good.

4.0 DISCUSSION OF FINDINGS

From the result of the regression model, the value of the intercept (B_0) is 20085.45 which represent the autonomous impact on real GDP (RGDP). The coefficient of TGR (β_1) is 2.875000, which implies that a unit change in total Government Revenue (TGR) will induce a 2.9 unit change in RGDP. The coefficient of TGE (β_2) is 2.709013, which implies that a unit change in total Government Expenditure (TGE) will bring about a 2.7 unit change in RGDP.

From result of t statistic, we could see that the coefficient of total government revenue (TGR) and total government expenditure (TGE) are individually significant in influencing real GDP (RGDP) which is in conformity with the apriori expectation. However, the impact of total government revenue is more than that of total government expenditure because $\beta_1(2.87500) > \beta_2(2.709013)$. This may not be unconnected with certain factors such as; expenditure on non-economic activities, corruption, over invoicing of government contracts, abandonment of contracts, cases of ghost workers amongst other which had led to overspending by the government with nothing to show for it.

R^2 is 0.937, which implies that total government revenue (TGR) and total government expenditure (TGE) jointly account for 93.7% variation in RGDP while random variable account for 6.3% variation in RGDP.

F-Statistic (280.9072) is significant which shows that the model is a good fit for the observed data on Real Gross Domestic Product (RGDP), total government revenue (TGR) and total government expenditure (TGE).

5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

This research work has examined critically the impact of fiscal policy on the economic development in Nigeria (1981 – 2021). From the analysis and discussion, we were able to establish that both government revenue and government expenditure have significant impacts on the economic development in Nigeria. This is true because the level, composition and nature of taxes on individuals, industries and the general public have great impacts on the economy.

We were also able to establish that the impact of government revenue on economic development during the period under review is more than the impact of government expenditure due largely to corruption, expenditure on non-economic activities, and high level of importation among others.

5.2 Conclusion

Since both government revenue and government expenditure have significant positive impacts on the economic development in Nigeria, this study concludes that Nigerian government experience in fiscal policy during the period under review (1981 – 2021) has yielded positive result.

5.3 Recommendations

Though the fiscal policy measures employed in Nigeria during the period under review has yielded positive results, there is need to improve the performance of government expenditure as well as government revenue towards a sustainable economic development in Nigeria. It is on this note that this research has recommended the following:

- There is the need for fiscal discipline. That is the government at all levels should curtail its extra-budgetary activities and reduce its expenditure. Funds that have been approved for budgeted expenditure should be released fully and timely so as to improve the performance of government expenditure and hence its impact on economic development in Nigeria.
- There is the need for more expenditure in favour of productive and economic ventures in order to improve the contribution of government expenditure on the economic development in Nigeria.
- There is also the need for the government to diversify its revenue sources in order to provide adequately funds for Agricultural, Manufacturing, Transport and other sectors of the economy so as to induce a multiplier effect and spur unprecedented economic development.
- Efforts should also be intensified by the government to checkmate corruption. This can be done by recovering ill-gotten wealth looted from the nation's treasury into private pockets. The anti-corruption agencies should be charged with the responsibilities of punishing leaders who are found wanting without prejudice and the war against corruption should be sustained for government to have sufficient resources to execute projects of economic value.
- Government should intensify efforts towards the export of manufactured goods which has the potential of enhancing foreign exchange earnings and improve balance of payments. Conducive environment should also be created to foreign investors who want to invest in Nigeria.
- The role of government should be reappraised with more emphasis laid on providing the enabling policy environment for private sector initiatives. This will ensure competitiveness, efficiency, productivity and profitability which will spur economic development.

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