

DISAGGREGATED FISCAL OPERATIONS AND EXTERNAL SECTOR GROWTH IN NIGERIA

Saro S. MICHAEL¹ Domale S. EMAH² & Michael Joseph ESSIEN³

¹Banking and Finance Dept, Ken. Saro Wiwa Polytechnic, Bori, Nigeria
E-mail: Lesi.saro@yahoo.com; Saromichaels180@gmail.com

Corresponding author

²Banking and Finance Department, Ken Saro Wiwa Polytechnic, Bori Nigeria
E-mail: domsicar@gmail.com

³National Institute of Construction and Management, Edo State, Nigeria

Abstract

This paper investigates the link between fiscal operation variables and external sector performance of the Nigeria economy for the period 1992-2021. The expost facto research design was adopted and annual data collected from the CBN Statistical Bulletin were analyzed using the Ordinary Least Square techniques to ascertain the relationships between fiscal operations variables (government expenditure, government revenue and government debts) and external sector variables (balance of payments, exports and external reserves). The empirical results of the study reveal that exports and external reserves have positive relationship with government expenditure and revenue but inverse relationship with government debts. Balance of payments also has positive relationship with government revenue and government debts but inverse relationship with government expenditure. The study recommends that government should reappraise its fiscal policy strategy particularly the actual aggregate expenditure, so as to address the persistent unfavourable balance of payments vis a vis the negative link with government expenditure.

Keywords: Fiscal operations, external sector, external reserves, balance of payments, exports

JEL Code Classification: E62, O11, O24

1. Introduction

In recent years, the growth and performance of key macroeconomic indicators in many developing countries has declined. The current economic crisis bedeviling most economies is increasingly becoming a source of worry and concern. There is no doubt that COVID -19 dealt a fatal blow on the economies of almost all nations leading to economic recession and its attendant socio-political and economic consequences. Considering the grave effect of the pandemic on international trade and transactions couple with the perceived ineffectiveness of monetary policy tools in resolving the crisis, the choice of fiscal policy tools cannot be overemphasized. Fiscal policy as a tool of macroeconomic management is central to the health of any economy, as the revenue and expenditure policy of the public sector affects the disposable income, savings, investment and consumption of individuals, business organizations and governments. Hence, effective fiscal policy operations will ensure the performance of the external sector of the economy.

The measurement of the growth of the economy can be approached from several dimensions. Conventionally, examining the growth of the economy or the impact of certain policies is weighed on gross domestic product (GDP). Of late, an emerging approach has shifted to sectoral performance evaluation. That is to say, the performance of the four cardinal sectors of the economy, real, finance, public and external, are examined against policies. It is on the strength of the above that it has become pertinent to examine impact of government expenditures on external sector variables like balance of payment, aggregate export, import, and external reserve. Therefore, fiscal policy involves the use of taxes, borrowing and changes in public expenditure pattern to influence the level of economic activities. The underdeveloped features of money and capital markets in addition to poor private sector development in most developing countries mean that more emphasis and greater importance is placed on the use of fiscal policy operations to stabilize the economy. In the economic literature, the effects of fiscal operations on macroeconomic performance outcomes are essentially fastened on two broad propositions of Classical and Keynesian arguments. This study relies heavily on the Keynesian theory which presupposes that increase in government expenditure leads to a rise in economic performance. This implies that increase spending by government during and after COVID-19 is needed to improve the value of export, external reserve, balance of payments (BOPs) while reducing the value of imports.

Nigeria's external sector reflects the economic transactions between the residents of Nigeria and the rest of the world. The sector can be in equilibrium or disequilibrium (surplus or deficit). A deficit outcome represents a situation where receipts are inadequate to accommodate the payments, while a surplus position reflects a situation where receipts are in excess of the payments. An ideal external sector is one that is stable and in equilibrium over time. Equilibrium is achieved when external receipts and payments are equal, the exchange rate is stable and external reserves are adequate. However, in more practical terms, such a perfect system hardly exists.

Analysis of external sector of the Nigerian economy as measured by the overall balance of payments revealed instability since 1960 due to persistent high demand for foreign goods and services in the face of dwindling foreign exchange earnings. Structurally, the sector, which had been dominated largely by crude oil export remain unaltered for over three decades. While an aggregate export is considered low, poor and uncompetitive, the volume of imports has been consistently on the increase. Dependence on oil exports, exposed Nigerian economy to the vagaries of the international crude oil market.

Given the impact of human and trade restrictions, lockdowns and other measures adopted to manage the pandemic, the external sector of the economy is considered one of the most vulnerable. These measures are perceived to affect production either for consumption or export, encourage imports, deplete external reserve and further increase our deficit balance of payments. It is therefore the objective of the paper to investigate the impact of fiscal operations on external sector measured by exports, imports, balance of payments and external reserve in Nigeria.

2. Review of Related Literature

An Overview of Fiscal Operation in Nigeria

Nigeria, with an estimated population of over 180 million people is the most populous country in Africa, with an approximate GDP of N69,023.93 billion in 2015 (national Bureau of Statistics, 2012; Central Bank of Nigeria, 2015). Nevertheless, following several years of military rule and poor economic management, the country experienced many internal and external shocks; a prolonged period of economic stagnation, rising poverty levels, and the decline of its

public institutions (Okonjo-Iweala & Osafo- Kwaako, 2007). By most measures, human development indicators in Nigeria were comparable to that of other least developed countries, while widespread corruption undermined the effectiveness of various public expenditure programs. Moreover, the lack of public investments in previous decades meant that there were severe infrastructural bottlenecks that hindered private sector activities. In addition to infrastructural deficiencies, the major priority sectors in the Nigerian economy have been immensely affected by shocks (both internal and external) whose appearance resulted in poor fiscal policy and imbalance between various economic activities (Abdurrauf, 2015; Cyril, 2016).

As a result, fiscal involvement in recent years in Nigeria has been to encourage economic recovery from the negative effects of the global economic and financial crisis. The country embarked on increased spending on priority sectors to provide an enabling environment needed to accelerate sustainable economic growth and development driven by the private sector (Mansouri, 2008; Onyemaechi, 2014). The key priority sectors and areas where funds are mainly expended are critical infrastructures, fighting corruption and human capital development, land reforms, food security and agriculture, national security and unity, power and transportation sector, review of existing tariffs and provision of fiscal incentive to enhance productivity in the real sector and provide alternative transportation of goods and services through investment in upgrading the existing railway network and dredging the waterways (Gemmell & Au, 2012; Osinowo, 2015).

Enache (2009) established weak evidence for the positive impact of fiscal policy on economic growth, and a decrease of distortionary government revenues accompanied by a reduction in unproductive government spending will increase real output growth in the long run.

Like every nation particularly in developing countries, public expenditure is among the significant component of economic governance in Nigeria. 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 (Matthew, 2011; Alex & Ebieri, 2014). In particular, the adequacy and quality of public goods such as infrastructure, utilities and related services largely depend on the nature and quality of public spending. On the other hand, the nature, conduct and levels of public expenditure affect the conditions of

fiscal sustainability and macroeconomic framework of any country. In Nigeria, for example, 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).

Fiscal operations are considered as the major phenomenon in the economic world of today. Quite a lot of empirical and conceptual literatures with diverse results have continued to surface on how fiscal operations can affect external sector growth both in the short-run and long-run.

Summarily, it is found that most studies on fiscal operations centered more on GDP and other macroeconomic aggregates in Nigeria with a gap existing in the external sector. It is this gap in literature and time in Nigeria that formed the entry point of this paper

3. Methodology

Given the objective, nature and scope of this study, the quasi-experimental design was used. Secondary data on annual interval scale for the period 1992 - 2021 were sourced from CBN Statistical Bulletin and analyzed using the Ordinary Least Square technique and some pre-estimation tools.

Model Specification

The hypothesized relationship between fiscal operations and external sector performance in Nigeria was modeled hereunder thus:

Functional Form of Model:

$$\begin{aligned} \text{BOP} &= f(\text{TGEXP}, \text{TGRE}, \text{FGBT}) & 1 \\ \text{EXPT} &= f(\text{TGEXP}, \text{TGREV}, \text{TGDBT}) & 2 \\ \text{EXTRSV} &= f(\text{TGEXP}, \text{TGREV}, \text{TGDBT}) & 3 \end{aligned}$$

Econometric Form of the Model:

$$\begin{aligned} \text{EXPT} &= \beta_0 + \beta_1 \text{TGEXP} + \beta_2 \text{TGREV} + \beta_3 \text{TGDBT} + \mu_t & 4 \\ \text{EXERSV} &= \beta_0 + \beta_1 \text{TGEXP} + \beta_2 \text{TGREV} + \text{TGDBT} + \mu_t & 5 \end{aligned}$$

Where

BOP	= Balance of payment,
EXPT	= Exports
EXTRSV	= External reserve,
TGEXP	= Total government expenditure
TGREV	= Total government revenue,
TGDBT	= Total government debt
β_0	= Intercept,
$\beta_1 - \beta_3$	= Coefficient of independent variables
μ_t	= Error terms

A priori expectation: All fiscal operation variables were expected to be positively related with external sector variables.

4. Analysis and Findings

Table 4.1 Regression Results (Model 1)

Dependent Variable: BOP Method: Least Squares

Date: 03/14/23 Time: 10:24

Sample: 1992 2021

Included observations: 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-331.3689	369.5380	-0.896711	0.3781
TGEXP	-0.958539	0.420688	-2.278505	0.0312
TGREV	0.248804	0.152953	1.626671	0.1159
TGDBT	0.316359	0.120826	2.618308	0.0145
R-squared	0.513850	Mean dependent var		123.3155
Adjusted R-squared	0.423140	S.D. dependent var		1298.459
S.E. of regression	1215.888	Akaike info criterion		17.16790
Sum squared resid	38437952	Schwarz criterion		17.35473
Log likelihood	-253.5185	Hannan-Quinn criter.		17.22767
F-statistic	2.857522	Durbin-Watson stat		1.921637
Prob(F-statistic)	0.044858			

Source: Researcher's computation using E-views, 2022

he result in table 4.1 reveals that the independent variables determine only 42.3% of the variations in the balance of payments. The F-value of 2.86 and p-value of 0.045 shows that the model has a good fit. Moreover, the t- statistic show that both government aggregate expenditure and debt have significant relationships with BOP In Table 4.2 result reveals that the independent variables determine 97.8% of the variations in the exports. The F-value of 421 and p-value of 0.00 shows that the model has a good fit. More so, the t-statistic shows that both government aggregate expenditure and revenue have positive significant relationships with export while total government debt has a negative insignificant relationship. From the result of the third model presented in Table 4.3, the independent variables determine 91.3% of the variations in external reserves. The F-value of 102 and p-value of 0.00 shows that the model has a good fit. More so, the t- statistic show that only government revenue has a significant relationship with export.

Discussion of Findings

In the course of the researcher's investigation into the subject matter of this study, certain findings were made, which are discussed below. First, government expenditure has positive relationship with export and external reserves but an inverse relationship with BOP. However, it only significantly enhances exports. Thus, increased government spending can stimulate Nigeria's external sector performance. This is because such spending, especially those on the productive sectors can enhance aggregate output resulting in increased export, which also enhances the external reserves of the country. But in the case of balance of payments, the impact of government expenditure has not been positively felt probably because of the overdependence of the economy on foreign goods and services.

Table 4.2 Regression Results (Model 2)

Dependent Variable: EXPT Method: Least Squares

Date: 03/14/23 Time: 10:26

Sample: 1992 2021

Included observations: 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-227.1437	286.2927	-0.793397	0.4347
TGEXP	1.339183	0.325920	4.108931	0.0004
TGREV	0.896774	0.118497	7.567887	0.0000
TGDBT	-0.103715	0.093608	-1.107979	0.2780
R-squared	0.979850	Mean dependent var	6744.207	
Adjusted R-squared	0.977525	S.D. dependent var	6283.333	
S.E. of regression	941.9865	Akaike info criterion	16.65742	
Sum squared resid	23070801	Schwarz criterion	16.84425	
Log likelihood	-245.8614	Hannan-Quinn criter.	16.71719	
F-statistic	421.4315	Durbin-Watson stat	2.119903	
Prob(F-statistic)	0.000000			

Source: Researcher's computation using E-views, 2022**Table 4.3 Regression Results (Model 3)**

Dependent Variable: EXTRSV

Method: Least Squares

Date: 03/14/22 Time: 10:30

Sample: 1992 2021

Included observations: 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-216.5752	428.3607	-0.505591	0.6174
TGEXP	0.860234	0.487652	1.764031	0.0895
TGREV	0.812041	0.177300	4.580050	0.0001
TGDBT	-0.131806	0.140059	-0.941077	0.3553
R-squared	0.921960	Mean dependent var	4938.758	
Adjusted R-squared	0.912955	S.D. dependent var	4777.188	
S.E. of regression	1409.431	Akaike info criterion	17.46333	

Sum squared resid	51648923	Schwarz criterion	17.65015
Log likelihood	-257.9499	Hannan-Quinn criter.	17.52309
F-statistic	102.3872	Durbin-Watson stat	1.950793
Prob(F-statistic)	0.000000		

Source: Researcher's computation using E-views, 2022

Secondly, aggregate government revenue has positive relations with all the external sector Performance indicators (met the apriori expectation) but significantly affects exports and external reserves. This is because increase in government revenue also enhances government's expenditure performance; thus, indirectly contributing positively to external sector performance. In the case of balance of payments, it is insignificant probably because of the inability of the government to improve the country's export in relations to imports.

Lastly, government debt was found to exert insignificant negative effects on both exports and external reserves but a significant positive effect on BOP. In models, 2 and 3, government debt meets the apriori expectation but not in model 1. From this result, increase in government borrowing reduces external sector performance. This is because of the fiscal indiscipline of government in appropriating borrowed funds. On the other hand, government debt has a significant positive effect on BOP. This implies that the level of government borrowing has contributed to the bulk of the country's negative BOP performance.

5. Conclusion and recommendations

Based on the results of the data analysis carried out, in line with the objectives of the study, it was concluded that the instrument of Government aggregate expenditure can be used significantly to enhance the level of the country's exports but has not significantly enhanced the external reserves of the country. However, increased level of government spending worsens the balance of payments.

The ability of government to improve on its revenue earnings will go a very long way in enhancing the external sector performance, particularly exports and external reserves but may not significantly enhance balance of payments. The study also reveals that increasing government aggregate debt stock can only enhance the balance of payments performance but reduce the exports potential; as well as leading to worsening external reserves levels.

The study therefore recommends that government should constantly reappraise fiscal operations to address the negative impact on BOPs and the persistent unfavourable balance of payments situation in Nigeria

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Competing Interest: The authors hereby declare that there is no competing interest in this manuscript.