

IMPACT OF MONETARY AND FISCAL POLICIES ON NON-OIL EXPORTS IN NIGERIA

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ABSTRACT

This study examined the impact of monetary and fiscal policy on the non-oil export in Nigeria. The study specifically investigated the effects of money supply, interest rate, government expenditure and direct tax on non-oil export. Time series data were sourced from CBN, NBS and IMF spanning from 1990 – 2020 for the conduct of the study. Augmented Dickey-Fuller test (ADF), Phillips-Perron test (PP) and Auto Regressive Distributed Lag Model, were employed. The results from the findings revealed that interest rate had negative significant influence on non-oil export in Nigeria; money supply has positive and significant linkage on non-oil exportation in Nigeria; government expenditure has significant positive effect on non-oil export. The study therefore recommends that: Government should encourage improved production of final agricultural goods and services as against production of raw materials for exportation which its final product may even be imported for usage within the economy for domestic usage thereby creating leakages in the economy. In addition, monetary authority should formulate policies that can spur export diversification through the expansion of long-term credits by banking institutions to private investors particularly in the non-oil sectors of the economy.

Keywords: Monetary Policy, Fiscal Policy, Non-oil Export, Growth, ARDL.

Introduction

Nigerian economy is a mono-cultural economy with much dependence on oil sector and little or not given attention to other sectors. Between 2006 and 2016, Nigeria's GDP grew at an

average rate of 5.7 percent per year (Omojolaibi, Mesagan & Olaifa, 2019). As volatile oil prices drove growth to a high of 80 percent in 2006 and to a low as -1.5 percent in 2016 (Omojolaibi, Mesagan & Olaifa, 2019). Moreover, the volatility of Nigeria's growth continues to impose substantial welfare costs on Nigerian households. The onset of oil price shock in mid-2014 confronted the government with numerous challenges of building on institutional and policy framework capable of managing the volatility of the oil sector and supporting the sustained growth of the non-oil economy (Zaagha, 2020).

Nigeria came out of recession in 2017, with oil sector as the major driver of the growth rate at 0.8 percent. The oil and gas sector reverted to contraction from the second quarter of the year and the non-oil economy was thus the main driver of growth in 2018, while agriculture slowed down significantly due to conflict and weather events in the country, non-oil, non-agricultural growth, strengthened but remained weak-with services (primarily information and communication technology) resuming as the key driver (Zaagha, 2020).

For the fact that, oil sector is not labour-intensive, and the non-oil economy is still relatively weak, nearly a quarter of the work force was unemployed in 2018, and another 20 percent under-employed. Thus, unemployment growth rate continues to worsen up to the first quarter of 2019 as result of the weak nature of the non-oil sector (Zaagha, 2020).

Non-oil exports are commonly influenced by government macroeconomic policy which relies primarily on two policy instruments; monetary and fiscal policy instruments. Monetary policy is designed to control the value, supply and cost of money in an economy, and it works through interest rates, money supply, exchange rate, and so on. On the other hand, fiscal policy is used to determine public revenue and public expenditure. The major instruments of the fiscal policy are public expenditure, taxes and public debts (Anthony & Mustafa, 2020).

The export promotion fiscal policies put in place to encourage non-oil exports among others include the Free Zone law for export processing zone, Export Expansion Grant (EEG) Scheme, Duty Drawback Scheme and Duty Drawback Facilities, which provided refunds of duties/surcharges of raw materials used for manufacturing of products. But fundamental change was witnessed for the case of monetary policy after SAP (Anthony & Mustafa, 2020). Monetary policy shifted from a direct to an indirect monetary policy management system. These include interest rates policies such as interest rate deregulation; adoption of different monetary policy rates; liberalization of the economy; introduction and the adoption of flexible exchange rate regime, the implementation of Monetary Policy Rate (MPR) to replace the minimum Rediscount Rate (MRR); introduction of the second tier foreign exchange market (SFEM); various export expansion incentive schemes, establishment of the Nigeria Export-Import Bank among others (Abogan, Akinola, & Baeuwa, 2018).

The Nigeria National Bureau of Statistics (NBS) reported the first quarter (Q1) performance as an improvement over the last few quarters of 2018. It cited the decline in the non-oil export value in 2017 was only ₦714bn or \$2.34bn according to the CBN. Non-oil exports that fetched \$350m (₦106.7bn) in Q2 of the same year rose to \$515.9m in Q3 and \$614.5m in Q4 of that year (NBS, 2018). Nigeria non-oil exports are dominated by primary agricultural commodities with

an unassertive renaissance in minerals. The manufacturing sector is weak and particularly vulnerable to exchange rate fluctuations (CBN, 2018).

Contrary to the expectation of increased non-oil exports, there was an overall decline in non-oil exports below its full potential. The various separate monetary and fiscal policies in Nigeria seem not to produce the expected improvement in non-oil exports. The gravity of the economic situation in Nigeria requires that the issue of policy mix be given a precise attention and interpretation. Thus, the examination of monetary and fiscal policy mix effect on non-oil export is therefore pertinent to establish if the response of non-oil exports to fiscal policy actions are more predictable than the response to monetary policy influence. Thus, the questions are necessary to proffer solutions to: What is the relationship between monetary and fiscal policies and non-oil exports in Nigeria? What is the impact of monetary policy on non-oil exports in Nigeria? What is the effect of fiscal policy of the government on non-oil exports in Nigeria? To provide suitable answers to the questions require examining the relationship between monetary and fiscal policies and non-oil exports in Nigeria; evaluating the impact of monetary policies on non-oil exports in Nigeria, and determining the effect of fiscal policy variables instruments on non-oil exports in Nigeria.

After a successful examination of the monetary and fiscal policy mix in relation to the topic under study, the findings of this study will contribute in aiding government, policy makers, economic planners and researchers. It provides an insight and understanding on how government policy on non-oil exports are faring. It provides awareness and understanding on how to be prudent in spending public funds that will bring about growth in the non-oil sector of the economy. It further assists monetary authority (Central Bank of Nigeria), government and investors in assessing the performance of monetary and fiscal policies in Nigeria in terms of its impact on the non-oil exports. The findings of this work is of great benefit to the policy makers and economic planners in terms of using its finding in formulating and implementing appropriate monetary/fiscal policy mix measures toward accelerating growth through diversification of the economy by projecting the non-oil exports products as major source of foreign earnings. However, this study covered the period of 1990 to 2020. The interest in this particular period is that at this period Nigeria experience robust economic growth and decline due to the rise and fall of global oil prices. The monetary policy instruments considered were Money Supply, and Interest rate. The reason is because they are the major monetary policy instrument used by the Central Bank of Nigeria to regulate the economy. While the fiscal policy measures are the government expenditure and taxation.

Research Questions

- i. To what extent has broad money supply contributed to the growth of non-oil exports in Nigeria?
- ii. In what way has interest rate brought about increase in the exportation of non-oil products in Nigeria?
- iii. How does Government Expenditure improve the exportation of non-oil products in Nigeria?
- iv. To what extents has direct tax added to the increase in the exportation of non-oil product in Nigeria?

Research Objectives

- i. To examine the contribution of broad money supply on non-oil exports in Nigeria
- ii. To evaluate the impact of interest rate on non-oil exports in Nigeria
- iii. To determine how Government Expenditure improves the exportation of non-oil products in Nigeria
- iv. To examine the impact of direct tax on the non-oil exports in Nigeria

Literature Review

Conceptual Clarifications

Monetary Policy

Ken (2014) defines monetary policy as "the management of the expansion and contraction of the volume of money in circulation for the explicit purpose of attaining a specific objective such as full employment." According to Ajasa (2015), "Monetary Policy is the exercise of the central bank's control over the money supply as an instrument for achieving the objectives of economic policy. Monetary policy is the macroeconomic policy laid down by the central bank. It involves management of money supply and interest rate and is the demand side economic policy used by the government of a country to achieve macroeconomic objectives like inflation, consumption, growth and liquidity control. It is also an economic strategy chosen by a government in deciding expansion or contraction in the country's money-supply. Applied usually through the central bank, a monetary policy employs three major tools: (1) buying or selling national debt, (2) changing credit restrictions, and (3) changing the interest rates by changing reserve requirements. Monetary policy plays the dominant role in control of the aggregate demand and, by extension, of inflation in an economy.

More so, the actions of a central bank, currency board or other regulatory committees that determine the size and rate of growth of the money supply, which in turn affects interest rates. Monetary policy is maintained through actions such as increasing the interest rate, or changing the amount of money banks need to keep in the vault. The techniques of monetary policy are the same as the techniques of credit control at the disposal of the central bank. Various techniques of monetary policy, thus, include bank rate, open market operations, variable cash reserve requirements, selective credit controls (Azaagha, 2020).

Fiscal Policy

A nation cannot achieve macroeconomic stability without fiscal policy. Fiscal Policy is required for economic growth and stabilization. It can be used to control the production and consumption of particular goods, services and products. The government increases aggregate demand by stabilizing taxes and increasing expenditure. It also boosts demand through tax cuts and increased transfer payments. These measures increase average household incomes and encourage consumer spending (Anthony & Mustafa, 2020). The authors added that, to regulate the demand side of the economy, fiscal policy influences aggregate output and employment by raising the level of infrastructure spending. Overall, fiscal policy can be deployed to correct economic imbalances in periods of recession and depression (Anthony & Mustafa, 2020).

Fiscal policy involves the use of government spending, taxation and borrowing to influence the pattern of economic activities and also the level and growth of aggregate demand, output

and employment. Fiscal policy entails government management of the economy through the manipulation of its income and spending power to achieve certain desired macroeconomic objectives (goals) amongst which is economic growth (Medee & Nembee, 2019). The objective of fiscal policy is to maintain and achieve full employment; to stabilize the price level; to stabilize the growth rate of the economy; to maintain equilibrium in the balance of payments and to promote economic development via government spending and taxation (Medee & Nembee, 2019).

Monetary and Fiscal Policies Mix

The linkage between monetary and fiscal policies mix and non-oil exports is based on the fact that a change in monetary and fiscal policy is discussed here. According to Hicks in his IS-LM framework that the level of economic activity and interest rates is determined by the unification of conditions in the aggregate market for goods services and the market for money. Fiscal policy influences the economy through the market for goods and services, while monetary policy works through the money markets (Polito & Brendon, 2021).

The combination of both policies affects real income and interest rates. The level of real income and interest rate could change overtime by a combination of policies in such a way that interest rates are rising or at least being sustained at the high level and the achievement of an income level with higher interest represents a tight monetary policy with easy fiscal policy (Polito & Brendon, 2021).

High interest rate could reduce the rate private investment and therefore reflects slower rate of non-oil export growth in the long-run than set economic policies that produces low interest rate and output. Since output and non-oil export are positively correlated, that is non-oil export are positively correlated, that is non-oil export increases (decreases) when output increases (decreases), fiscal and monetary policy also influence exports (Polito & Brendon, 2021).

Theoretical Review

Keynesian Economics Theory

The study is anchored on Keynesian Economics Theory .Keynesian economics comprise a macroeconomic theory of total spending in the economy and its effects on output, employment, and inflation. Keynesian economics were developed by British economist John Maynard Keynes during the 1930s in an attempt to understand the Great Depression.

Keynesian economics are considered a demand-side theory that focuses on changes in the economy over the short run. Its central belief is that government intervention can stabilize the economy

Keynes' theory was the first to sharply separate the study of economic behaviour and markets based on individual incentives from the study of broad national economic aggregate variables and constructs.

Based on his theory, Keynes advocated for increased government expenditures and lower taxes to stimulate demand and pull the global economy out of the Depression. Subsequently,

Keynesian economics were used to refer to the concept that optimal economic performance could be achieved—and economic slumps could be prevented—by influencing aggregate demand through activist stabilization and economic intervention by the government. Keynesian economists justify such intervention because of its policies that aim to achieve full employment and price stability.

Keynes rejected the idea that the economy would return to a natural state of equilibrium. Instead, he argued that, once an economic downturn sets in, for whatever reason, the fear and gloom that it engenders among businesses and investors will tend to become self-fulfilling and can lead to a sustained period of depressed economic activity and unemployment.

In response to this, Keynes advocated a countercyclical fiscal policy in which, during periods of economic woe, the government should undertake deficit spending to make up for the decline in investment and boost consumer spending to stabilize aggregate demand.

According to Keynes' theory of fiscal stimulus, an injection of government spending eventually leads to added business activity and even more spending. This theory proposes that spending boosts aggregate output and generates more income. If workers are willing to spend their extra income, the resulting growth in gross domestic product (GDP) could be even greater than the initial stimulus amount.

Keynesian economics focus on demand-side solutions to recessionary periods. The intervention of government in economic processes is an important part of the Keynesian arsenal for battling unemployment, underemployment, and low economic demand. The emphasis on direct government intervention in the economy often places Keynesian theorists at odds with those who argue for limited government involvement in the markets.

Empirical Studies

There are numerous literatures on the impact of monetary and fiscal policy on non-oil exports both globally and in the domestic economy, but only few of it on the impact of monetary/fiscal policy mix on non-oil exports in the Nigerian context.

Awoyele, George and Obayori (2020) assessed policy mix and non-oil output in Nigeria for the period 1990–2019. The study used secondary data collected from the Central Bank of Nigeria statistical bulletin and applied the Vector Error Correction Method (VECM). The long-run VECM results showed that there is a long-run causality running from the independent variables to the dependent variable. The short-run VECM result showed that, there is a direct but insignificant relationship between government capital spending and non-oil GDP. Also, there is a direct but insignificant relationship between broad money supply and non-oil GDP. The authors concluded that the combination of the policy mix in terms of fiscal and monetary policies are important drivers of the output of the non-oil sector.

Aliyeva, and Rahmanov (2019) examined the interaction between the fiscal and monetary policies in Azerbaijan using the VAR methodology and quarterly data for the period 2003Q1-2018Q4. The results of the Granger causality tests and impulse response analysis show that

although both the monetary and fiscal policies demonstrate activity, the fiscal policy dominates over the monetary policy.

Ubaid (2019) adopted multiple regression method to estimate the multiplier effect of the monetary and fiscal policy on non-oil gross domestic product in the Iraqi economy for the period of 1990-2018 and it was found out that the impact of monetary policy is insignificant on non-oil gross domestic product through a multiplier of monetary policy (k), and the flexibility of non-oil gross domestic product for the government to spend are insignificant.

Adewale (2018) studied the effectiveness of monetary policy and fiscal policy instruments in stabilizing Nigeria economy from 1981-2017. Using the error correction model (ECM) for the empirical analysis, it was confirmed that a positive relationship exists between money supply, government expenditure and revenue while interest rate and budget deficit have negative relationships with economic growth.

Bodunrin, (2016) investigated the impact of fiscal and monetary policy on Nigerian economic growth from 1981 to 2015. Time series data were collected from the central bank of Nigeria (CBN), the international monetary fund (IMF) and the World Bank. Firstly, a vector autoregressive model (VAR) was applied, and then the vector error correction (VEC) model. The VAR model revealed that fiscal policy distorted real GDP but died out after one year, while monetary policy had no significant impact on real GDP. The impact of capital expenditure was found to have a significant impact on real GDP while the impact of recurrent expenditure was insignificant. With the introduction of VEC model, the study found an unexpected shock on money supply, real effective exchange rate and taxes to have a negative permanent effect on real GDP, while an unexpected shock on recurrent expenditure and capital expenditure to have a positive effect on real GDP.

Edeme and Obiayo (2017) using the partial determination model to analysed the responsiveness of non-oil exports to fiscal and monetary policy actions, found out that there is monetary-fiscal interaction effect in the short-run but the effect became undefined in the long-run. It was also revealed that the response of non-oil exports is dominated by fiscal policy actions than the response to monetary policy.

Kanang, Musa and Akuben (2020) examined the effects of monetary policy on Nigeria's non-oil exports from 1970 to 2019 using the Autoregressive Distributed Lag bounds testing approach. The result obtained indicating significant positive effects of money supply and real effective exchange rate on non – oil exports in the long run. However, in the short run only money supply had a significant effect on non – oil exports. Besides, real interest rate was found to have negative effects on non – oil exports in both the long run and short run.

Hasanov, Mammadov and Al-Musehel (2018) investigated non-oil sector effects of fiscal policy in Azerbaijan. Adopting the co-integration, error correction and the autoregressive distributed lag testing approach for the analysis. The result shows that fiscal policy has a statistically significant positive impact on the non-oil sector both in the long and short-run.

Akidi, Agiobenebo and Ohale (2018) examined the impact of fiscal policy on Non-oil output in Nigeria taking a time series data spanning from 1980-2016. ECM was utilized and the result revealed that measures of the policy directly significantly influenced non-oil output, except domestic and external borrowings, which were also significant but inversely related with non-oil output.

Methodology

This study employed the ex-post facto research design using time series data sourced from the Central Bank of Nigeria (CBN) statistical bulletin, National Bureau of Statistic (NBS) statistical bulletin, World Bank data bank and the International Monetary Fund (IMF) spinning from the period of 1990-2020.

Model Specification

The model of this research work draws its strength from the Keynesian view as he advocated for combination of monetary and fiscal policy. On that basis the model is specified showing the relationship existing between non-oil export with the monetary and fiscal policy variables used in the model to determine the impact of monetary and fiscal policy on non-oil exports in Nigeria. From the Keynesian view, the structural model of this work was stated thus:

$$NOE = f(BMS, INT, GEX, DIR.....)1$$

Where,

NOE = Non-Oil Export: non-oil products exported out of Nigeria.

BMS = Broad Money Supply: quantity of bulk money supplied in the economy by the monetary authority.

INT = Interest Rate: the bank lending rate.

GEX = Government Expenditure: includes all government consumption, investments and transfer payments.

DIR: Direct Tax: all tax revenue accruing to the government.

And the linear and multiple regressions are expressed thus:

$$NOE = \beta_0 + \beta_1 BMS + \beta_2 INT + \beta_3 GEX + \beta_4 DIR.....2$$

Stochastic form of the model is expressed as:

$$NOE = \beta_0 + \beta_1 BMS + \beta_2 INT + \beta_3 GEX + \beta_4 DIR + U_t.....3$$

Where U_t is the stochastic error term defining other factors not captured in the model.

The log form of the model is stated thus:

$$\ln NOE_t = \beta_0 + \beta_1 \ln BMS_t + \beta_2 \ln INT_t + \beta_3 \ln GEX_t + \beta_4 \ln DIR_t + U_t4$$

\ln = Natural Logarithm of the variables used to smoothen possible scholastic effect from variables at level. β_0 is the constant while $\beta_1 - \beta_4$ are the coefficients of the relationships between the independent variables and the dependent variable. μ is the stochastic error term for the time period covered by the study.

$$\beta_1 > 0, \beta_2 < 0, \beta_3 > 0, \beta_4 > 0$$

Based on the expansionary assumption, the expected a priori is that:

β_0 is to take care of the constant variable;

Where,

β_1 is the coefficient of broad money supply (BMS), which is expected to be less than zero ($\beta_2 > 0$) due to its positive relationship with the non-oil exports.

β_2 is the coefficient of interest rate (INT), which is expected to be less than zero ($\beta_2 > 0$), because it is negatively related to non-oil exports;

β_3 is the coefficient of government expenditure (GEX), which is expected to be greater than zero ($\beta_3 > 0$) due to its positive relationship with non-oil exports;

β_4 is the coefficient of direct tax (DIR), which is expected to be greater than zero ($\beta_4 > 0$) due to its positive relationship with the non-oil exports;

Methods of Data Analysis

This study utilized co-integration analysis to estimate and so as to establish the impact of monetary and fiscal policy variables on the non-oil exports in the Nigeria economy. Methods adopted to test for the stationarity of the time series data which was the Augmented Dickey-Fuller test (ADF), and the Phillips-Perron test (PP), Auto-Regressive Distributed Lag (ARDL) was used to established the presence or absence of short-run or long-run relationship existing between the variables used in the model and finally, estimates the relationship to determine the speed of adjustment.

Results

Table 1: Descriptive Statistics

	LNNOE	LNBMS	LNINT	LNGEX	LNDIT
Mean	14.35	17.04	2.57	7.52	13.73
Median	14.76	17.27	2.60	7.25	14.32
Maximum	16.99	19.81	3.26	9.89	16.99
Minimum	7.98	11.14	1.79	6.77	8.30
Std. Dev.	2.12	12.41	0.30	0.90	2.70
Kurtosis	3.05	3.44	3.40	4.97	2.49
Jacque-Berra	8.06	5.60	4.68	21.37	3.53
Probability	0.2178	0.0898	0.963	0.0000	0.1709

Source: Authors computation using Eview Version 9.0.

Table 2: Unit Root Result

Variables	ADF			PP		
	t-statistic	p-Value	Order of Integration	t-statistic	p-Value	Order of Integration
LNNOE	-2.082622	0.0252	I(1)	-6.169976	0.0000	I(1)
LNBMS	-4.865725	0.0005	I(1)	-4.915159	0.0004	I(1)
LNINR	-6.811348	0.0000	I(1)	-7.008367	0.0000	I(1)
LNGEX	-3.843592	0.0067	I(1)	-3.829487	0.0070	I(1)
DIT	-4.277647	0.0023	I(1)	-4.254571	0.0024	I(1)

Source: Authors computation using Eview Version 9.0.

Table 3: Johansen Cointegration Test

Unrestricted Cointegration Rank Test (Trace)				
Hypothesized	Trace	0.05		
No. of CE(s)	No. of CE(s)	No. of CE(s)	No. of CE(s)	No. of CE(s)
None *	0.984267	196.3170	69.81889	0.0000
At most 1	0.816748	80.06126	47.85613	0.0000
At most 2	0.469158	32.54820	29.79707	0.0235
At most 3	0.324307	14.81603	15.49471	0.0631
At most 4	0.128141	3.839577	3.841466	0.0500
Trace test indicates 3 cointegrating eqn(s) at the 0.05 level				
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized	Trace	0.05		
No. of CE(s)	No. of CE(s)	No. of CE(s)	No. of CE(s)	No. of CE(s)
None	0.984267	116.2558	33.87687	0.0000
At most 1	0.816748	47.51306	27.58434	0.0000
At most 2	0.469158	21.13162	17.73217	0.0140
At most 3	0.324307	10.97645	14.26460	0.1554
At most 4	0.128141	3.839577	3.841466	0.0500
Max-eigenvalue test indicates 3 cointegration at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				

Source: Author's computation using Eviews 9.0

Table 4: Error Correction Mechanism Result

Dependent Variable: GDP				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.37035	7.149057	1.450590	0.0198
LNBM	0.1174	0.221095	0.531021	0.0403
LNINT	-0.370515	1.080448	0.342927	0.0346
LNEX	1.855106	0.743832	2.493986	0.0199
LNDIR	0.867973	0.179882	4.825244	0.0001
ECM(-1)	-0.686638	0.405722	-1.199437	0.0242
R-squared	0.761433	Mean dependent var		0.154050
Adjusted R-squared	0.730898	S.D. dependent var		0.310919
S.E. of regression	1.337999	Akaike info criterion		0.075017
Sum squared resid	42.96577	Schwarz criterion		0.613732
Log likelihood	-47.95625	Hannan-Quinn criter.		0.258734
F-statistic	9.377408	Durbin-Watson stat		2.103663
Prob(F-statistic)	0.000047			

Source: Author's computation using Eviews 9.0

Discussion

From the findings as indicated in Table 2 above, all variables used in the model were integrated of order one (1) using the Augmented Dickey Fuller and Philip Peron test. From above it shows that the series are stationary at first difference as indicated by both the augmented dickey fuller test and the Philip Peron test. The next inline was the usage of Johansen co-integration rank test to confirm the existence of long run relationship between non-oil exports, broad money supply, interest rate, government expenditure and direct tax. It was confirmed that co-integration exists among the variables, therefore long-run relationship exists between the variable. The study concludes that there is strong support for a long-run relationship between non-oil export and monetary and fiscal policy variables used in the model for Nigeria. This result is in agreement with the study of Akims, Sakanko and Magaj (2020), Awoyele *et al.*, (2020), and the study of Akidi etal (2018) who confirmed in the study the existence of long run relationship between variables of monetary policy and non-oil export in Nigeria. The study is in contrast with the finding of Edeme and Obiayo (2017) that posited in their study based on the findings that the relationship between fiscal policy variables and non- oil is undefined in the long run.

The ECM result in Table 4 indicates that about 69% disequilibrium errors accumulated in the previous period has been corrected in the current period. The error correction model tells us the speed in which the model returns to equilibrium; it shows that there is a significant tendency for non-oil exports to oscillate to equilibrium if it deviates from its equilibrium path. The result also indicates that broad money supply (BMS) has a positive and significant relationship with non-oil exports in Nigeria over the observed period. This is an indication that, for any 1% increase in broad money supply, the economic implication that increase in money supply in the economy has the tendency of boosting the non-oil exports through lower interest rate. This finding concurs with those of Anthony and Mustafa (2020), Imoughele and Ismaila (2015) and Akidi, *et al.* (2018). Non-oil exports will increase by 12%. Interest rate has a negative and significant relationship with non-oil exports, if interest rate increase by 1% non-oil exports will decrease by 37%. The economic implication is that demand for loanable fund will decrease due to increase in interest rate and this will affect investment. This agrees with the a priori expectation. It may therefore be implied that high cost of borrowing or greater opportunity cost for investment discourages non-oil exports possibly, due to the fact that such may pose a constraint to production. This finding agrees with the study of Chukuigwe and Abili (2018).

The adjusted R-squared value of 0.730898 shows that about 73% of the changes in non-oil exports are jointly explained by broad money supply, interest rate, government expenditure and direct tax. While the R-squared value of 73% shows that the model has a good fit. The Prob. (F-statistic) value of 0.000047 shows that, the entire model is statistically significant and this implies that, indeed, there exist a linear relationship between non-oil exports and each of the explanatory variables. It further indicates that the independent variables are useful in explaining changes in the dependent variable. The Durbin-Watson value of approximately 2.1 indicates that the model does not suffer autocorrelation.

From all the analyses, it is shown that relationship exist between monetary and fiscal policy both in the short and long run establishing the impacts of monetary policy variables used in

the model to be in line with economic theory as it was shown that the impact of money supply is positive and that of interest rate to be negative. Also it also establishes the impact of fiscal policy with government expenditure and direct tax showing positive relationship.

Conclusion

The study examined the effect of monetary and fiscal policy on the non-oil export of Nigeria. The study specifically investigated the effect money supply, interest rate, government expenditure and direct tax on non-oil export position. The results from the findings revealed that interest rate had negative significant influence on non-oil export in Nigeria, money supply has positive and significant linkage on non-oil exportation in Nigeria; government expenditure affect non-oil export positively and it is significant. Thus, the study concludes that monetary policy and fiscal policy affected non-oil exportation of Nigeria positively through its policy variables of money supply, government expenditure, government taxation and negatively through interest rate. From the discussion so far, it is obvious that monetary and fiscal policy measures if well managed are effective in achieving non-oil output in Nigeria.

Recommendations

Based on the findings the research made the following recommendations.

- i. Government should encourage improved production of final agricultural goods and services as against production of raw materials for exportation which its final product may even be imported for usage within the economy for domestic usage thereby creating leakages in the economy.
- ii. Expansionary policies on fiscal policy measures especially in government capital and recurrent spending should be encouraged as they play vital role in the growth of the non-oil output in order to improve economic growth in Nigeria.
- iii. Considering the current economic recession and the agenda of the federal government to diversify the economy and to boost non-oil exports, the study recommends the adoption of mixed monetary-fiscal policy. This is because, monetary-fiscal policy actions operate more quickly; and could possibly take nations out of the recession and expand non-oil exports within a short while, though, the interaction effect is undefined in the long run.
- iv. The study suggests the needs for monetary authority in formulating policies that can spur export diversification through the expansion of long-term credits by banking institutions to private investors particularly in the non-oil sectors of the economy.

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