

*Full Length Research Paper*

# **Fiscal policy: Its impact on economic growth in Nigeria 1970 to 2006**

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**This study involves comparative analysis of the impact of fiscal policy on economic growth in Nigeria during regulation and deregulation periods. Econometric analysis of time series data from Central Bank of Nigeria was conducted. Results obtained showed that there is a difference in the effectiveness of fiscal policy in stimulating economic growth during and after regulation periods. The impact was marginally higher (only ₦140 million or 14% contribution to GDP) during deregulation, than in the regulation period. We recommend appropriate policy mix, prudent public spending, setting of achievable fiscal policy targets and diversification of the nation's economic base, among others.**

**Key words:** Fiscal policy, regulation, deregulation, economic growth.

## **INTRODUCTION**

The Nigerian economy has been plagued with several challenges over the years. Researchers have identified some of these challenges as: gross mismanagement/misappropriation of public funds, (Okemini and Uranta, 2008), corruption and ineffective economic policies (Gbosi, 2007); lack of integration of macroeconomic plans and the absence of harmonization and coordination of fiscal policies (Onoh, 2007); inappropriate and ineffective policies (Anyanwu, 2007). Imprudent public spending and weak sectoral linkages and other socio-economic maladies constitute the bane of rapid economic growth and development (Amadi et al., 2006). It is evident that one of Nigeria's greatest problems today is the inability to efficiently manage her enormous human and material endowment.

In spite of many, and frequently changing, fiscal, monetary and other macro-economic policies, Nigeria has not been able to harness her economic potentials for rapid economic development (Ogbole, 2010). These policies span through two broad periods, which can be classified as "regulation" and "deregulation".

Our main focus is the differential in fiscal policy

effectiveness in promoting economic growth in the two broad periods.

Our main predictor/explanatory variable is fiscal policy. We use Federal Government spending as proxy for fiscal policy. Based on the foregoing, we hypothesize that the effectiveness (or impact) of fiscal policy on economic growth is not different between the two periods under investigation. Our time frame is 37 years (from 1970 to 2006). The period of regulation is considered to be between 1970 and 1985, while that of deregulation is from 1986 to 2006.

## **THEORETICAL/CONCEPTUAL FRAMEWORK AND REVIEW OF RELATED LITERATURE**

The earliest organized school of macroeconomic thought is the "classical" school. The classical economists were proponents of the price mechanism (market system) which assumes a smooth functioning market where there is effective resource allocation (Ekanem and Iyoha, 1999) and a guarantee to economic freedom to all and sundry, with built-in flexibility that excludes the need for conscious government planning and intervention. It however has certain limitations and inefficiencies resulting in a condition referred to as "market failure". The market

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failed to achieve a satisfactory level of welfare for the society by providing an equitable or fair distribution of income and wealth, or all of these (Ogiji, 2004). The 1930s Great Depression was a confirmation of the reality of the failure of the market economy which led to the evolution of Keynesian economics. Keynes submitted that the lingering unemployment and economic depression were a result of failure on the part of the government to control the economy through appropriate economic policies (Iyoha et al., 2003). Consequently, Keynes proposed the concept of government intervention in the economy through the use of macroeconomic policies such as fiscal and monetary policies. Fiscal policy deals with government deliberate actions in spending money and levying taxes with a view to influencing macro-economic variables in a desired direction. This includes sustainable economic growth, high employment creation and low inflation (Microsoft Corporation, 2004). Thus, fiscal policy aims at stabilizing the economy. Increases in government spending or a reduction in taxes tend to pull the economy out of a recession; while reduced spending or increased taxes slow down a boom (Dornbusch and Fischer, 1990).

Government interventions in economic activities are basically in the form of controls of selected areas/sectors of the economy. These controls differ, and depend on the specific needs or purpose the government desires to achieve. Samuelson and Nordhaus (1998), distinguished between two forms of regulation, namely:

- (i) Economic regulation (involving control of prices, entry and exit conditions, regulation of public utilities, such as transportation and media organizations, regulation of the financial sector operations.
- (ii) Social regulation (aimed at protecting the health and safety of workers at work place, the environment, and protection of consumer rights. our focus is on economic regulation.

Aregbeyen (2007), Ekpo (1994), Amin (1998), Devarajan et al. (1996), Fuente (1997), Kneller et al. (1999) and Bose et al. (2003), established positive relationship between fiscal policy (public spending) and economic growth. Bose et al. (2003) in Aregbeyen (2007) found that the share of government capital expenditures in the gross domestic product is positively and significantly correlated with economic growth, while the growth effect of current expenditure is insignificant. Aregbeyen (2007) believed that although government expenditures were necessary for economic growth, yet the impact of such expenditures on the economy is of primary importance. He concluded that the key to rapid economic growth constituted capital and public investment expenditure and that increased government budget deficits do not automatically guarantee rapid economic growth.

According to Adeoye (2006),

“The debate on the effectiveness of fiscal policy as a tool for promoting growth and development remains

inconclusive, given the conflicting results of current studies”

He opined that while the studies of Thornton (1990), Lin and Liu (2000), indicated a net positive effect, those of Baily (1980) and Feldstein (1980) indicated a negative net effect. Also according to Saunders (2006), empirical studies carried out on the US economy by Anderson and Jordan (1968), Hafer (1982), Saunders (1995); and on the UK economy by Saunders (2006), did not give empirical support to the effectiveness of fiscal policy in economic stabilization.

The empirical studies cited above, relating to fiscal policy and economic growth in Nigeria, left some gaps. No studies have, so far, focused on the effectiveness of this policy measure in stimulating economic growth in this country during regulation and deregulation periods. This is the gap our study intends to fill. Our time frame is 1970 to 2006. The study variables are gross domestic product (dependent variable) and Government expenditure, (independent variable). Also capital inflow, export and private investment are included in our model as check variables.

## METHODOLOGY AND DATA ANALYSIS

The study adopts a comparative approach. Comparative analysis was made of the effectiveness of fiscal policy in stimulating economic growth under each of the regulation and deregulation periods of the Nigerian economy. The analysis involves stationarity test, co-integration test, and ordinary least squares (OLS) regression.

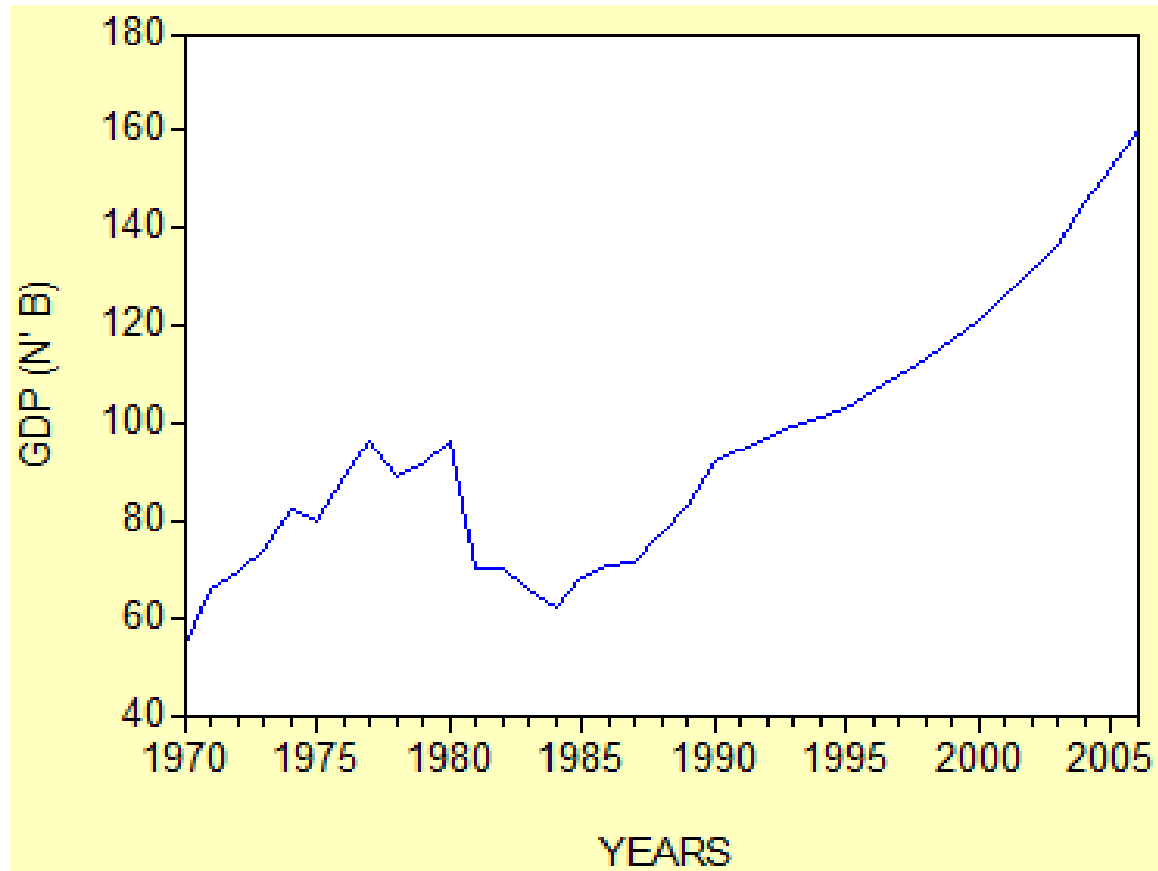
We used secondary data sourced mainly from the Central Bank of Nigeria (CBN). Our computational device is the E-view software (version 4.1). Among the tests conducted are t- test, to ascertain the significance of regression coefficients (Gujarati, 2003), F-test, for the overall significance of our model (a test of goodness of fit of the model) (Patterson and Okafor, 2007); ( $R^2$ ) Coefficient of determination (Gujarati, 2003) which gives the proportion of the variation in Y explained by the variables  $X_2$ ,  $X_3$  etc. jointly; stationarity test to ascertain the stationarity conditions of the series. For this purpose, the Augmented Dickey-Fuller (ADF) test is very widely used, and was used in our study. For co-integration, the Johansen's test was conducted to test for the long-run or equilibrium relationship between the time series (Omotor and Gbosi, 2007; Gujarati, 2003).

## MODEL SPECIFICATION

To establish the relationship between economic growth and fiscal policy variables, we adopted a growth model which is in line with that applied by Adeoye (2006). We have however made some adaptations to suit our study. Dorrance (1966) in Habeeb (1994) proposed a relationship between economic growth and inflation. He asserted that,

“it might be suggested that inflation discourages development and mild inflation encourages it, after a point the depressive effect of inflation offsets the stimulating effect of monetary expansion”.

In other words there exists a critical rate of inflation beyond which growth declines. Habeeb (1994) used inflation as an explanatory variable for growth in his analysis and we have adopted this variable in our model also. In the empirical work of Adewuyi (2002),



**Figure 1.** Shows the trend of GDP in the period under review. The variable exhibits a generally rising trend, but fluctuating in the mid 1980s.

an empirical relationship between volume of export and real capital flows and rate of growth was established. We have also adopted this in our model (Appendix 1).

We specified a GDP model and included a dummy variable (DUM) in it, having values of zero (0) for the period of regulation and one (1) for the period of deregulation. The magnitude of the coefficient of the Dummy variable in the model was used to determine the extent of difference in the effectiveness of fiscal policy in stimulating economic growth in these two periods. The probability value (P-value) of DUM was compared with alpha ( $\alpha$ , 0.05) to determine the statistical significance of the difference. The functional relation of our model,

$$\text{GDP} = f(\text{GE}, \text{PI}, \text{IFR}, \text{CIF}, \text{X})$$

is specified in the regression form below as:

$$\text{GDP} = a_0 + a_1\text{GE} + a_2\text{PI} + a_3\text{IFR} + a_4\text{CIF} + a_5\text{X} + a_6\text{Dum} + U_1$$

The log-log form is:

$$\text{Log GDP} = a_0 + a_1 \log \text{GE} + a_2 \log \text{PI} + a_3 \log \text{IFR} + a_4 \log \text{CIF} + a_5 \log \text{X} + a_6 \text{DUM} + U_1$$

where:

GE = government expenditure, PI = private investment, IFR = inflation rate, DUM = Dummy variable, CIF = capital inflow,  $U_1$  = random error term, X = export.

*A priori* expectation ( $a_1, a_2, a_4, a_5, > 0$ ;  $a_3, < 0$ ).

## DATA ANALYSES AND PRESENTATION OF RESULTS

### Descriptive analysis

We begin with the descriptive analysis of the data in respect of GDP for the period under review, using line graphs as shown in Figure 1. Figure 1 shows the trend of GDP in the period under review. The variable exhibits a generally rising trend, but fluctuating in the mid 1980s.

### Econometric analyses

#### Stationarity test

ADF test was conducted to ascertain whether the variables in the model are stationary. The result shows that the variables were all stationary (Tables 1-6). This means that in the short run, the variables were stable. For all the variables, the ADF test statistics were less than the critical values at 5% level of significance.

**Table 1.** Stationarity test on GDP [Lag Length = 9].

	<b>t-Statistic</b>	<b>Prob.*</b>
Augmented Dickey-Fuller test statistic	-8.794874	0.0000
Test critical values:		
1% level	-4.356068	
5% level	-3.595026	
10% level	-3.233456	
*MacKinnon ( 1996) one-sided p-values		

<b>Augmented Dickey-Fuller test equation [Dependent variable= D(GDP,2)]</b>		
<b>Variable</b>	<b>Coefficient</b>	<b>Prob.*</b>
D(GDP(-1))	-3.981706	0.0000
D(GDP(-1), 2)	2.427958	0.0000
D(GDP(-2), 2)	2.164355	0.0000
D(GDP(-3), 2)	2.009223	0.0000
D(GDP(-4), 2)	1.632851	0.0000
D(GDP(-5), 2)	1.303761	0.0000
D(GDP(-6), 2)	1.254300	0.0000
D(GDP(-7), 2)	1.059893	0.0001
D(GDP(-8), 2)	0.713409	0.0003
D(GDP(-9), 2)	0.238700	0.0395
C	-19.44328	0.0000
@TREND( 1970)	1.170185	0.0000

Source: Stationarity test results from analysis using Eviews 5.

**Table 2.** Stationarity test on GE [Lag Length = 7].

	<b>t-Statistic</b>	<b>Prob.*</b>
Augmented Dickey-Fuller test statistic	-5.621173	0.0005
Test critical values:		
1% level	-4.323979	
5% level	-3.580623	
10% level	-3.225334	
*MacKinnon ( 1996) one-sided p-values		

<b>Augmented Dickey-Fuller test equation [Dependent variable= D(GDP,2)]</b>		
<b>Variable</b>	<b>Coefficient</b>	<b>Prob.*</b>
D(GE(-1))	-3.439898	0.0000
D(GE(-1), 2)	1.951477	0.0085
D(GE(-2), 2)	1.726858	0.0200
D(GE(-3), 2)	1.729414	0.0176
D(GE(-4), 2)	3.769748	0.0004
D(GE(-5), 2)	4.127456	0.0003
D(GE(-6), 2)	5.618496	0.0001
D(GE(-7), 2)	6.921690	0.0000
C	-69.92590	0.1431
@TREND( 1970)	5.317542	0.0633

Source: Stationarity Test Results From Analysis Using Eviews 5.

**Table 3.** Stationarity Test on PI [Lag Length = 0].

	<b>t-Statistic</b>	<b>Prob.*</b>
Augmented Dickey-Fuller test statistic	-8.327312	0.0000
Test critical values:		
1% level	-4.252879	
5% level	-3.548490	
10% level	-3.207094	
*MacKinnon ( 1996) one-sided p-values		
<b>Augmented Dickey-Fuller test equation [Dependent variable = D(PI(-1))]</b>		
<b>Variable</b>	<b>Coefficient</b>	<b>Prob.*</b>
D(PI(-1))	-1.570663	0.0000
C	-32.67746	0.2204
@TREND( 1970)	2.621397	0.0442

Source: Stationarity test results from analysis using Eviews 5.

**Table 4.** Stationarity test on IFR [Lag Length =1].

	<b>t-Statistic</b>	<b>Prob.*</b>
Augmented Dickey-Fuller test statistic	-5.740390	0.0002
Test critical values:		
1% level	-4.252879	
5% level	-3.548490	
10% level	-3.207094	
*MacKinnon ( 1996) one-sided p-values		
<b>Augmented Dickey-Fuller Test Equation [ Dependent Variable= D(IFR, 2)]</b>		
<b>Variable</b>	<b>Coefficient</b>	<b>Prob.*</b>
D(IFR(-1))	-1.380810	0.0000
D(IFR(-1),2)	0.358867	0.0419
C	3.770448	0.5362
@TREND( 1970)	-0.185102	0.5076

Source: Stationarity Test Results From Analysis Using Eviews 5.

**Table 5.** Stationarity test on CIF [Lag Length = 1].

	<b>t-Statistic</b>	<b>Prob.*</b>
Augmented Dickey-Fuller test statistic	-8.013040	0.0000
Test critical values:		
1% level	-4.252879	
5% level	-3.548490	
10% level	-3.207094	
*MacKinnon ( 1996) one-sided p-values		
<b>Variable</b>	<b>Coefficient</b>	<b>Prob.*</b>
D(CIF(-1))	-1.380810	0.0000
D(CIF(-1),2)	0.358867	0.0131
C	3.770448	0.8938
@TREND( 1970)	-0.185102	0.5030

Source: Stationarity Test Results From Analysis Using Eviews 5.

**Table 6.** Stationarity test on X [Lag Length = 1].

	<b>t-Statistic</b>	<b>Prob.*</b>
Augmented Dickey-Fuller test statistic	-7.635053	0.0000
Test critical values:		
1% level	-4.262735	
5% level	-3.552973	
10% level	-3.209642	
*MacKinnon (1996) one-sided p-values		
<b>Augmented Dickey-Fuller test equation [Dependent variable: D(X, 2)]</b>		
<b>Variable</b>	<b>Coefficient</b>	<b>Prob.*</b>
D(X(-1))	-1.693006	0.0000
D(X(-1),2)	0.585860	0.0006
C	-147.8760	0.2820
@TREND(1970)	11.45073	0.0761

Source: Stationarity test results from analysis using Eviews 5.

**Table 7.** Johansen cointegration test on the series GDP, GE, PI, IFR, CIF, X using lag interval of 1 to 2.

<b>Unrestricted cointegration rank test (Trace)</b>				
<b>Hypothesized No. of CE(s)</b>	<b>Eigenvalue</b>	<b>Trace Statistic</b>	<b>0.05 Critical value</b>	<b>MHM(1999) p-value</b>
4	0.235797	13.45149	15.49471	0.09993
Trace test indicates hypothesis of 4 cointegrating equations at the 0.05 level is accepted.				
<b>Unrestricted cointegration rank test (Maximum-Eigenvalue)</b>				
<b>Hypothesized No. of CE(s)</b>	<b>Eigenvalue</b>	<b>Max-Eigen Statistic</b>	<b>0.05 Critical value</b>	<b>MHM(1999) p-value</b>
4	0.235797	9.143356	14.26460	0.2744
Max-eigenvalue test indicates hypothesis of 4 cointegrating equations at the 0.05 level is accepted.				

Source: Cointegration test results from analysis using Eviews 7.1.

### Co-integration test

Johansen's co-integration test results (Table 7) show that in the model there is long-run relationship between the GDP variables; hence they could be used for the intended analysis. The long run relationship is indicated by a number of co-integrating equations (CEs) shown by the trace test ranging from three (3) to five (5) co-integrating equations (Table 7).

### OLS Estimation

$$GDP = f(GE, PI, IFR, CIF, X)$$

The above functional relation is expressed in the regression form below:

$$GDP = a_0 + a_1GE + a_2PI + a_3IFR + a_4CIF + a_5X + a_6Dum + U1 \quad (1)$$

where:

GE = government expenditure, PI = private investment, IFR = inflation rate, DUM = Dummy variable, CIF = capital inflow, U1 = random error term, X = Export.

A priori expectation ( $a_1, a_2, a_4, a_5, > 0; a_3, < 0$ ).

The log-log form is:

$$\text{Log GDP} = a_0 + a_1 \log GE + a_2 \log PI + a_3 \log IFR + a_4 \log CIF + a_5 \log X + a_6 \text{DUM} + U1$$

$$\begin{matrix} 3.92 & 0.13 & -0.13 & -0.020 & -0.01 & 0.12 & 0.14 \\ (0.00) & (0.079) & (0.016) & (0.385) & (0.655) & (0.010) & (0.67) \end{matrix}$$

$$R^2 = 0.89; \text{ Adjusted } R^2 = 0.87; \text{ Prob (F-statistic} = 0.00)$$

(2)

The log-log form of the GDP model was used because it showed better values for  $R^2$  and adjusted  $R^2$  (See Table 8a). The result shows that the model is of good fit, judging from the value of the  $R^2$  (0.89). This means that approximately 89% of changes in GDP are explained by changes in the explanatory variables. The overall model

**Table 8a.** GDP Regression equation (Log-Form): Results of Estimation.

Dependent variable: LGDP			
Variable	Coefficient		Prob.*
C	3.918911		0.0000
LGE	0.131468		0.0793
LPI	-0.127102		0.0159
LIFR	-0.020253		0.3852
LCIF	-0.013331		0.6552
LX	0.117253		0.0096
DUM	0.141159		0.067
R-squared	0.889229	AIC	-1.622870
Adjusted R-squared	0.867074	SC	-1.318101
DW Statistic	0.826452	Prob(F-statistic)	0.000000

Source: Regression results from analysis using Eviews 5

is also significant with the probability value (P-value, 0.00) of the F-statistic being less than  $\alpha$  (0.05).

We observe that  $R^2 > DW$ , (Table 8a), a possible explanation could be that the static regression specification is spurious. This is the view of Granger and Newbold (1974) and Gujarati (2004). However, in multiple regression situation,  $R^2 > DW$ , could be due to multicollinearity. How do we know this? Simply observe that  $R^2$  is high and significant but the t values for all or most of the coefficients are not significant. Following this situation, we also apply vector error correction (VEC). The specifications used are as follows:

$$D(GDP) = a_1 GDP(-1) + a_2 IFR(-1) + a_3 GE + a_4 PI + a_5 DUMMY + u_1 \quad (3)$$

$$D(IFR) = b_1 GDP(-1) + b_2 IFR(-1) + b_3 GE + b_4 PI + b_5 DUMMY + u_2 \quad (4)$$

The VEC Equations (3) and (4) are estimated by system estimation. The system method used here is seemingly unrelated regression.

Though, this time  $R^2$  is low in both equations ( $R^2 = 0.09$  and  $0.30$  respectively), it is lower than their corresponding DW values of 1.86 and 1.73 respectively (see Table 8b).

## DISCUSSION OF FINDINGS

Results of our GDP model estimation are in (Table 8a). The effect of government expenditure on gross domestic product is not significant (P-value,  $0.079 > \alpha$ ). This could be largely due to misappropriation of public funds and corruption that have resulted in channeling public funds

to non-productive areas rather than investing in productive ventures, (such as infrastructure and other growth promoting activities). Billions of dollars unaccounted for but claimed to have been spent on the power sector is a glaring example.

The proportion of public funds channeled to investment in infrastructure is usually less than those spent on consumption expenditure. The coefficient is positive (0.13) which agrees with our *a priori* expectation. This shows that if the quality of government expenditure is improved upon by directing it to productive channels, it would, *ceteris paribus*, stimulate economic growth as confirmed by Aregbeyen (2007) in his study of forty African countries, including Nigeria.

The effect of private investment (PI) on gross domestic product is significant, with a p-value (0.016) approximately, less than  $\alpha$ . The negative sign of the coefficient (-0.13) does not agree with *a priori* expectation. This could be because the lack of steady power supply, good roads and other basic infrastructure that the government failed to adequately provide, may have undermined the potentials of the Nigerian private sector. It could also mean that government expenditure had a crowding-out effect on private investment. However, the fact that private investment is significant shows that it has a great potential to enhance economic growth, provided that the government creates the enabling environment. The effect of inflation rate on gross domestic product is not significant (p-value,  $0.3852 > \alpha$ ). This may be due to the fact that Nigeria is not a producer nation as she relies more on imported goods. The major export commodity is crude oil, which continues to be produced in spite of high inflation rate. The negative coefficient (-0.020) of inflation rate agrees with *a priori* expectation as inflation, beyond certain limits adversely affects productivity as we see in Nigeria. Capital inflow exerted non significant, (p-value,  $0.6552 < \alpha$ ) and negative (-0.01), effect on gross

**Table 8b.** Vec for gdp & ifr with ge, pi & dummy as exogenous variables using system estimation.

<b>System: SYS02</b>				
<b>Estimation Method: Seemingly Unrelated Regression</b>				
Date: 01/28/11 Time: 11:03				
Sample: 1971 2006				
Included observations: 36				
Total system (balanced) observations 72				
Linear estimation after one-step weighting matrix				
	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
C(1)	-0.002615	0.032686	-0.080004	0.9365
C(2)	0.077228	0.064657	1.194420	0.2369
C(3)	0.004078	0.007498	0.543831	0.5885
C(4)	-0.000273	0.009093	-0.029998	0.9762
C(5)	-0.185520	2.417236	-0.076749	0.9391
C(6)	0.227126	0.072200	3.145774	0.0025
C(7)	-0.557798	0.142823	-3.905530	0.0002
C(8)	-0.025512	0.016563	-1.540263	0.1286
C(9)	0.012668	0.020087	0.630675	0.5306
C(10)	-8.544309	5.339505	-1.600206	0.1146
Determinant residual covariance		5778.159		
Equation: D(GDP) = C(1)*GDP(-1)+C(2)*IFR(-1) +C(3)*GE+C(4)*PI +C(5) *DUMMY				
Observations: 36				
R-squared	0.094388	Mean dependent var	2.946667	
Adjusted R-squared	-0.022465	S.D. dependent var	6.309052	
S.E. of regression	6.379524	Sum squared resid	1261.648	
Durbin-Watson stat	1.868473			
Equation: D(IFR) = C(6)*GDP(-1)+C(7)*IFR(-1) +C(8)*GE+C(9)*PI+C(10) *DUMMY				
Observations: 36				
R-squared	0.303643	Mean dependent var	-0.155556	
Adjusted R-squared	0.213791	S.D. dependent var	15.89283	
S.E. of regression	14.09192	Sum squared resid	6156.051	
Durbin-Watson stat	1.730517			

domestic product. It is not significant probably due to political and socio-economic instability, coupled with lack of needed infrastructure. Also, existing capital inflow in the form of grants and foreign aids are largely mis-managed rather than channeled to productive activities to enhance growth. The negative sign is contrary to *a priori* expectation as capital inflow is expected to boost GDP growth.

Export (X) exerted a significant (p-value,  $0.0096 < \alpha$ ) and positive (0.12) impact on GDP. This agrees with *a priori* expectation. However, this marginal improvement can be enhanced by policies that encourage export and diversification of the economy towards non-oil exports to enhance GDP growth. The dummy variable included in the GDP model captures the relative effect of fiscal policy on GDP during regulation and deregulation periods. The

positive coefficient (0.14) indicates a relatively marginal increase in gross domestic product in the period of deregulation than in the period of regulation, but this difference is not significant (p-value,  $0.0670 > \alpha$ ). Equilibrium relation exists between GDP and IFR.

## SUMMARY OF FINDINGS

Our null hypothesis of no significant difference in the effectiveness of fiscal policy on gross domestic product during regulation and deregulation periods was not rejected because p-value of 0.067 is greater than  $\alpha$  (0.05). However the dummy variable coefficient (0.14) shows that there is a difference in the extent to which fiscal policy can stimulate gross domestic product growth



between regulation deregulation periods. Though equilibrium relation exists between GDP and IFR it is not so strong because of low  $R^2$ .

This weak equilibrium relation may be due to small n, the sample period.

## CONCLUSION

From the results of our analysis and findings, we conclude that there is a difference in the level of effectiveness of fiscal policy in stimulating economic growth in Nigeria. This is only marginally higher (by about an average of N140 million or 14%) in the period of deregulation than in the period of regulation. However, this difference is not statistically significant (Dummy variable p-value,  $0.067 > \alpha$ ).

## Theoretical implication

The marginal and insignificant difference in efficiency of fiscal policy in both regulation and deregulation periods is instructive. It shows that both economic periods are good, and none is bad per se. But the specific needs or peculiarities of a given country and its specific economic circumstances and objectives are probably the basic factors that inform the choice of an economic policy regime to adopt.

## RECOMMENDATIONS/POLICY IMPLICATION

### From the foregoing we recommend as follows:

Government fiscal policy should refocus and redirect government expenditure towards production of goods and services so as to enhance GDP growth.

This can be achieved by setting specific goals/targets for each state and for the Federal Government. Attention should focus on the real sector.

The goals should aim at minimizing, if not completely eradicating, diversion of public funds to private pockets and embezzlement.

This may compel the local, state, and Federal Government to utilize their funds for the achievement of set economic goals within specified time periods.

Factors to be considered in setting these goals/ targets should include the level of human and economic resources available, allocations from the federation account, and other factors considered relevant.

Time limits set for the realization of these goals would encourage commitment, probity, accountability and transparency by public funds managers.

Government economic policies should focus on diversification of the economy to enhance the performance of the non-oil sector, so as to create more jobs in this

sector.

This will be a more effective way of reducing unemployment and increasing the gross domestic product.

The non-oil sector in Nigeria has a greater potential for job creation than the oil sector.

Efforts should be made by government to ensure appropriate policy mix for harmony and proper coordination of economic policies.

Fiscal policy should give priority attention to capital and public investments by making them of higher proportion in gross government expenditure, thereby creating more jobs and enhancing the quality of public spending and the attainment of sustainable growth and development. Emphasis should be on the development of basic infrastructure (example. transportation, energy and communication). Human capital development should be a priority.

To ensure that all the main objectives of fiscal policy and their targets are achieved, there is need to redirect public expenditures towards making Nigeria a producer nation. This ought to be the central focus of fiscal policy objective.

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**APPENDIX.** Comprehensive data of variables. (N'BILLION) (IFR in %).

YEAR	GDP	GE	PI	IFR	CIF	X	Dummy
1970	54.20	0.904	0.30	13.80	0.30	0.90	1
1971	65.70	1.02	0.40	16.00	0.50	1.30	1
1972	69.30	1.50	0.50	3.20	0.40	1.40	1
1973	73.80	1.60	0.60	5.40	0.60	2.30	1
1974	82.40	2.70	1.00	13.40	0.50	5.80	1
1975	80.00	6.00	1.60	33.90	0.80	4.90	1
1976	88.90	7.80	2.00	21.20	0.50	6.60	1
1977	96.10	8.90	2.30	15.40	0.70	7.60	1
1978	89.00	7.90	2.60	16.60	0.70	6.10	1
1979	91.20	7.40	3.70	11.60	0.70	10.80	1
1980	96.2	15.00	5.20	9.90	0.80	14.20	1
1981	70.40	11.40	5.80	20.90	0.60	11.00	1
1982	70.20	11.40	6.30	7.70	2.20	8.20	1
1983	66.00	11.10	8.10	23.20	1.70	7.50	1
1984	62.50	9.90	9.40	39.60	1.40	9.10	1
1985	68.30	13.10	10.60	5.50	1.40	11.70	1
1986	70.80	16.10	11.50	5.40	4.00	8.90	0
1987	71.20	22.10	15.10	10.20	5.10	30.40	0
1988	77.70	27.90	18.40	38.30	6.20	31.20	0
1989	83.20	41.10	17.80	40.90	4.70	58.00	0
1990	92.20	60.30	23.10	7.500	10.50	109.90	0
1991	94.20	66.70	30.40	13.00	5.60	121.50	0
1992	97.00	93.90	43.40	44.50	11.70	205.60	0
1993	99.60	136.70	60.90	57.20	42.60	218.80	0
1994	100.90	156.80	76.10	57.00	7.80	206.10	0
1995	103.10	307.20	93.30	72.80	56.00	950.70	0
1996	106.60	283.00	115.40	29.30	5.70	1309.50	0
1997	110.00	428.20	154.10	8.50	10.00	1241.70	0
1998	113.50	487.10	161.90	10.00	32.40	751.90	0
1999	116.70	947.70	241.60	6.60	4.00	1189.00	0
2000	121.20	701.10	343.20	6.90	16.50	1945.70	0
2001	126.30	1019.10	452.00	18.90	5.00	1868.00	0
2002	131.50	1188.70	556.00	12.90	9.00	1750.00	0
2003	136.50	1225.90	655.70	14.00	13.50	3098.20	0
2004	145.40	1384.00	797.50	15.00	20.10	4620.10	0
2005	152.35	1743.20	1317.00	17.90	26.10	6310.30	0
2006	160.28	1942.30	1647.65	8.20	32.50	7916.30	0

Source: CBN Statistical Bulletin, 2006.