©IDOSR PUBLICATIONS
International Digital Organization for Scientific Research ISSN: 2579-079X
IDOSR JOURNAL OF SCIENCE AND TECHNOLOGY 1(1): 43-50, 2016.

EFFECTS OF TAX REFORMS ON ECONOMIC GROWTH IN NIGERIA: AN EMPIRICAL APPROACH

Orji Uka Odim[1], Edeh Lawrence[2] and Ifeanyi Ogbonna[2]

[1]Department of Economics, Tansian University, Umunya, Anambra State, Nigeria.

[2]Department of Accountancy, Tansian University, Umunya, Anambra State, Nigeria.

E-mail: orjiuka07@yahoo.com

ABSTRACT

The study examines the impact of tax reforms on economic growth in Nigeria from 1994 to 2014. To achieve the objective of the study, relevant secondary data were collected from the Central Bank of Nigeria (CBN) Statistical Bulletin, Federal Inland Revenue Service (FIRS), Office of the Accountant General of the Federation, and other relevant government agencies. The data collected were analysed using relevant descriptive statistics and econometric models such as White test, Ramsey Reset test, Breusch Godfrey test, Jacque Berra test, Augmented Dickey Fuller test, Johansen test, and Granger Causality test. The results from the various test shows that tax reforms is positively and significantly related to economic growth and that tax reforms granger cause economic growth. On the basis of the findings, the study concluded that tax reforms improves the revenue generating machinery of government to undertake socially desirable expenditure that will translate to economic growth in real output and per capita basis. However, it was recommended that sustainable economic growth cannot be achieved with tax reform processes except obsolete tax laws and rates are reviewed in line with macroeconomic objectives, corrupt-free and efficient tax administrative machinery with personnel, accountability and transparency of government officials in the management of tax revenue being restored.

Key words: Causality, co-integration, economic growth, Nigeria, tax, tax reforms

INTRODUCTION

The political, economic and social development of any country depends on the amount of revenue generated for the provision of infrastructure in that given country. However, one means of generating the amount of revenue for providing the needed infrastructure is through a well-structured tax system. According to [1], tax is a major player in every society of the world. The tax system is an opportunity for government to collect additional revenue needed in discharging its pressing obligations. A tax system offers itself as one of the most effective means of mobilizing a nation's internal resources and it lends itself to creating an environment conducive to the promotion of economic growth. [2], argues that taxes constitute key sources of revenue to the federation account shared by the federal, state and local governments. This is why [3], stated that in Nigeria, the government's fiscal power is divided into three-tiered tax structure between the federal, state and local governments, each of which has different tax jurisdictions. The system is lopsided and dominated by oil revenue. He further argues that over the past two decades oil revenue has accounted for at least 70% of the revenue, thus indicating that traditional tax revenue has never assumed a strong role in the country's management of fiscal policy. Instead of transforming the existing revenue base, fiscal management has merely transited from one primary product-based revenue to another, making the economy susceptible to fluctuations of the international market. It on the account of this lopsided revenue structure that tax experts and scholars stated in clear terms that the Nigerian tax system need to be reformed to achieve long term economic growth and development.

Tax is a compulsory levy imposed on a subject or upon his property by the government to provide security, social amenities and create conditions for the economic well-being of the society [4 and 5]. [6], stated that tax are imposed to regulate the production of certain goods and services, protection of infant industries, control business and curb inflation, reduce income inequalities etc. [7], maintained that taxes are used as proxy for fiscal policy. They outlined five possible mechanisms by which taxes can affect economic growth. First, taxes can inhibit investment rate through such taxes as corporate and personal income, capital gain taxes. Second, taxes can slow down growth in labour supply by disposing labour- leisure choice in favour of leisure. Third, tax policy can affect productivity growth through its discouraging effect on research and development expenditures. Fourth, taxes can lead to a flow of resources to other sectors that may have lower productivity. Finally, high taxes on labour supply can distort the efficient use of human capital high tax burdens even though they have high social productivity. [8], suggest that a number of recent theoretical studies have used endogenous growth models to stimulate the effects of a fundamental tax reform on economic growth. All these studies conclude that reducing the distorting effects of the current tax structure would permanently increase growth.

Tax is a major source of government revenue all over the world. Government use tax proceeds to render their traditional functions, such as the provision of public goods, maintenance of law and order, defense against external aggression, regulation of trade and business to ensure social and economic maintenance [1]. [9], also stated that the economic effects of tax include micro effects on the distribution of income and efficiency of resource use as well as macro effect on the level of capacity output, employment, prices, and growth. However, the use of tax as an instrument of fiscal policy cannot be achieved because of dwindling level of revenue generated as a result of ineffectiveness of government officials. [10], argue that the increasing cost of running government coupled with the dwindling revenue has left all tiers of government in Nigeria with formulating strategies to improve the revenue base. Tax is dynamic, so reforms are necessary to effect the required changes in the national economy [11]. [1], noted that tax reform is an ongoing process with tax policy makers and tax administrators continually adopting the tax systems to reflect changing economic, social and political circumstances in the economy. Therefore, the objective of this study is to examine the impact of tax reforms on the economic growth of Nigeria (2000-2009).

MATERIALS AND METHODS

In carrying out this study, time series data sourced from Central Bank of Nigeria Statistical Bulletin, Federal Inland Revenue Service (FIRS), Office of the Accountant

General of the Federation, Federal Ministry of Finance and Budget Office of the Federation were used in this study. The macroeconomic data cover tax revenue (TR) and Economic Growth (EG) between 1994 and 2014 in Nigeria. The specification shall be

GDP = F (PPT, CIT, VAT, ET, PIT, CED) (1)

PPT = Petroleum Profit Tax

CIT = Companies Income Tax VAT = Value Added Tax

ET = Education Tax

PIT = Personal Income Tax

CED = Custom and Excise Duties

GDP = gross domestic product

Increased tax revenue is expected to increase gross domestic product, so GDP/ TR

$GDP = \beta_0 + \beta_1 PPT + \beta_2 CIT + \beta_3 VAT + \beta_4 ET + \beta_5 PIT + \beta 6CED + \mu_t$… (2)

Since the data to be used for the analysis is time series, we employed co-integration tests to avoid spurious regression. The first step would be a diagnostic test of each of the variables for stationarity. The study employs the Augmented Dickey - Fuller test for unit root such that if any of the series is found to be integrated, then a cointegration test will be conducted using Johansen Cointegration Test. Therefore, to determine if there exists a long run relationship between dependent and independent variables, then they will be most efficiently represented by an Error Correction Method which is used to tie the short run behavior to its long run value [12, 13 and 14]. We also perform Granger Causality test between the dependent and independent variables. However, the EView econometric software is used for analyzing the data.

RESULTS AND DISCUSSION

This section of the study examines the results and discussions of relevant findings from the econometric analysis.

Table 1

White Heteroskedasticity Test

F-statistic	0.619940	Probability	0.761791
Obs*R-squared	11.40198	Probability	0.4948 19
Eview 8.0 Output			

Table 2

Ramsey RESET test

F-statistic	0.3 04090	Probability	0. 596392
Log likelihood ratio	0.596906	Probability	0.439761
Eview 8.0 Output			

Table 3:

Breusch-Godfrey serial correlation LM test:

F-statistic	1.302641	Probability	0.330414

Eview 8.0 Output

Table 4

Variable	ADF	5%	Level
GDP	-4.89009	-3.1222	1st diff
PPT	-4.230010	-3.1222	Ist diff
CIT	-3.772350	-3.1222	1st diff
VAT	-4.345981	-3.1222	1st diff
ET	-4.923842	-3.1222	1st diff
CED	-3.393410	-3.1222	1st diff
PIT	-4.961772	-3.1222	1st diff

Eview

Table 1 shows the White test of heteroskedasticity. The result reveals that the p-value of about 49% is greater than the critical value of 5%. This shows that there is no evidence for the presence of heteroskedasticity since the p-values are considerably in excess of 0.05.

Table 2 shows a summary of Ramsey RESET test which indicates that the p-value of about 60% is greater than the critical value of 5%. This shows that there is apparently non-linearity in the regression equation and it would be concluded that the linear model is appropriate.

Table 3 shows Breusch-Godfrey Serial Correlation LM test for the presence of autocorrelation. The result of the test reveals that the p-value of about 33% is greater than the critical value of 5%. This shows the non-existence of autocorrelation.

Table 4 shows the unit root test for stationarity using Augmented Dickey-Fuller. The result shows that all the variables are stationary at 1(1) series at -4.89009, -4.230010, -3.772350, -4.345981, -4.923842, -3.393410, and -4.96 1772 for gross domestic product, petroleum profit tax, companies income tax, value added tax, education tax, customs and excise duties and personal income tax respectively. All the series were significant at 1% and 5% except Companies Income Tax (CIT) and customs and excise duties (CED) that was significant only at 5%.

Table 5 shows Granger Causality test for the causality between tax reform and economic growth proxied by Gross Domestic Product. The result reveals that petroleum profit tax with a p-value of 0 .92 is greater than the critical value of 0.05, which implies the rejection of the null and acceptance of the alternative that petroleum profit tax in Nigeria Granger Cause Gross Domestic Product while GDP dose not Granger Cause PPT. The table also shows that companies' income tax, value added tax education tax, custom and exercise duties and personal income tax Granger cause any of the tax variables.

The result of Johansen's cointegration test as presented in table 6 shows the existence of a cointegrating equation. This shows that there exist a long run equilibrium relationship between GDP and the fundamentals used in the model.

Table 5: Granger causality test

Pairwise granger causality tests Date: 11/08/11

Time: 20:07

Null hypothesis:	Obs	F-statistic	Probability
PPT does not granger cause GDP	20	0.07747	0.92607
GDP does not granger cause PPT		0.3 9032	0.03776
CIT does not granger cause GDP	20	0.03 884	0.96206
GDP does not granger cause CIT		0.905 17	0.04834
VAT does not granger cause GDP	20	2.19229	0.16764
GDP does not granger cause VAT		3.28530	0.041 86
ET does not granger cause GDP	20	0.10703	0.89963
GDP does not granger cause ET		4.0 1002	0.0486
CED does not granger cause GDP	20	0.43 805	0.6583 5
GDP does not granger cause CED		10.6110	0.00429
PIT does not granger cause GDP	20	0.24270	0.78948
GDP does not granger cause PIT		5.06911	0.03354

Table 6: Johansen co-integration test

Eigen value	Likelihood ratio	5% critical value	1% critical value	No. of CE (s)	Lag length
0.702512	40.531723	26.4973	33.6534	none	1

L.R.: test indicates one cointegrating equation at 5% level of significance

Table 7: Error correction estimates

Variables	Estimated coefficient	t-value	Probability
Constant	27.9116	4.938490	0.0008
AGDP	0.1527	5.4410	0.0032
APPT	0.3114	2.4113	0.0125
ACIT	0.1883	3.4462	0.0113
AVAT	0.2126	3.7113	0.0106
AET	0.2359	2.261993	0.0480
ACED	0.2982	5.980437	0.0002
APIT	0.0816	3.6618	0.0016

R^2: 0.5827; Adjusted R^2: 0.5432; F-ratio: 4.2431; DW: 2.02

Table 7 shows the Error Correction Estimates with an adjusted R^2 of about 54% of the variation of the dependent variable GDP is as a result of change in tax revenue. The independent variables are correctly signed indicating a positive relationship between tax revenue as a result of reforms to economic growth. This is consistent with Ola (2001). The F-statistics confirm the significance of the overall regression equation.

CONCLUSION AND RECOMMENDATIONS

The objective of this study is to investigate the relationship between tax reforms and economic growth in Nigeria. It goes further to examine whether tax reforms on petroleum profit tax, companies income tax, value added tax, personal income tax, education tax and customs and excise duties affect economic growth measured by gross domestic product of Nigeria. To capture this, time series data were culled from 1994-2014. The Johansen Co-integration test confirmed that a long run relationship exists between tax reforms and economic growth and the Granger causality result also shows that tax granger cause economic growth.

This goes to show that tax reforms have significantly altered the way the system and their agencies function resulting in improved impacts on economic growth. The reform process has indeed, charted a road map to drive the Nigerian economy to international relevance, as it is to provide adequate revenue for the government to undertake socially desirable expenditure that will translate to economic growth in real output and per capita basis for it is the only part to ensure efficient transport system, regular supply of water electricity supply etc. Government may in this way use tax revenue from the various reform processes to impact on the economy of Nigeria. However, the desired revenue cannot be generated from the tax reform processes in Nigeria except government review obsolete laws and rates to align with current macroeconomic target for the promotion of fiscal responsibility and sustain ability; a corrupt - free and efficient administrative machinery with personnel's who are well trained, well-equipped and motivated would enable Nigeria to make appreciable progress in revenue generation; there should be harmony in the objectives of tax reforms with other industrial and macro-economic objectives; and above all accountability and transparency on the part of government officials in the management of tax revenues for the benefit of the citizens and Nigeria in general.

REFERENCES

1. Azubike, J.U.B., 2009. Challenges of tax authorities, tax payers in the management of tax reform processes. Niger. Account. 42(2): 36-42.
2. Nzotta, S.M., 2007. Tax evasion problems in Nigeria: A critique. Niger. Account. 40(2): 40-43.
3. Odusola, A., 2006. Tax Policy Reforms in Nigeria. Research Paper No. 2006/03 United Nations University-World Institute for Development Economics Research.
4. Appah, E., 2004. Principles and Practice of Nigerian Taxation, Ezev in Mint Printers and Publishers, Port Harcourt.
5. Appah, E. and J.K. Oyandonghan, 2011. The challenges of tax mobilization and management in the Nigerian economy. J. Bus. Admin. Manage, 6(2): 128-136.
6. Anyanfo, A.M.O., 1996. Public Finance in a Developing Economy: The Nigerian Case. Department of Banking and Finance, University of Nigeria, Enugu Campus. Enugu.
7. Tosun, M.S. and S. Abizadeh, 2005. Economic growth and tax components: An analysis of tax change in OECD. Appl. Econ., 37: 225 1-2263.
8. Engen, E. and J. Skinner, 1996. Taxation and economic growth. Nat. Tax J., 49(4): 617-642.
9. Musgrave, R.A. and P.B. Musgrave, 2004. Public Finance in Theory and Practice. Tata

McGraw Hill, New Delhi, India.
10. Kiabel, B.D. and N.G. Nwokah, 2009. Boosting revenue generation by state governments in Nigeria: The tax Consultants option revisited. Eur. J. Soc. Sci., 8(4): 532-539.
11. Ola, C.S., 2001. Income Tax Law and Practice in Nigeria. Heinemann Educational Books (Nigeria) Plc, Ibadan.
12. Wooldridge, J.M., 2006. Introductory Econometrics: A Modern Approach. 3rd Edn. Thomson Higher Education, Mason.
13. Asterious, D. and S. Hall, 2007. Applied Econometrics: A Modern Approach. Palgrave Macmillan, London.
14. Gujarati, D.N. and D.C. Porter, 2009. Basic Econometrics. 5th Edn., McGraw Hill, New York.