AN EMPIRICAL ANALYSIS OF FISCAL POLICY MEASURES AND UNEMPLOYMENT IN NIGERIA

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Abstract: The paper examines fiscal policy measures and unemployment in Nigeria from 1980 to 2014. The objective of this study is to examine the impact of fiscal policy on unemployment rate in the Nigerian economy. To achieve this objective, we utilized data on government capital expenditure, government recurrent expenditure, unemployment rate and government tax revenue sourced from CBN statistical bulletin. The econometric method of co-integration/Error Correction Mechanism was employed as the analytical tool. The result of the parsimonious ECM shows that the overall model is satisfactory given the coefficient of determination of 55 percent and f-statistic of 2.442869. In addition, the government capital expenditure appeared with the right sign i.e., negative and statistically significant at 5% level of significance in reducing unemployment rate in Nigeria. But government recurrent expenditure and government tax revenue were not statistically significant at 5% level of significance in reducing unemployment rate in Nigeria. Furthermore, the coefficient of the parsimonious ECM has the appropriate sign that is negative and statistically significant at 5% level. Meaning that, the short run dynamics adjust to long run equilibrium relationship. Based on the findings above, the study suggests; Government should increase her capital expenditure and ensure a well combination and coordination of both fiscal and other policies to increase employment opportunities in Nigeria. Government should avoid mismanagement of national resources, misappropriation of funds and wasteful spending. Fiscal policy should be given more attention towards reducing unemployment in Nigeria. Government should create more entrepreneurial skill acquisition programmes to aid self employment which in turn will reduce unemployment. Also, there should be smooth co-ordination and consistency in fiscal pursuits to solve the problem of unemployment in Nigeria.

INTRODUCTION

The role of government sector in economic management is performed through the formulation and implementation of economic policies, especially fiscal policy. Economic policy refers to actions taken by the government under a given set of circumstances Gbosi (2012:61). Fiscal policy entails government's management of the economy through the manipulation of its income and spending power to achieve certain desired macroeconomic objectives (goals) amongst which is full employment. Akpakpan (1994) sees it as the deliberate use of government income and expenditure to influence the level of economic activities in the country. According to Gbanador (2007), "Fiscal policy is a deliberate action undertaken by the government to achieve its economic objectives using the fiscal instruments of taxation, government spending and the budget deficit". Supporting this, Tom-Ekine (2013) stated that "Fiscal policy is concerned with the action of the government to spend money or to collect money in taxes, with the purpose of influencing the condition of the national economy". The power of fiscal policy as an instrument of economic stabilization cannot be over emphasized.

Moreover, one of the primary objectives of fiscal policy is to smooth out the fluctuations in economic activities that often cause unemployment and/or inflation (Akpakpan 1999:272). Specifically, an important role of fiscal policy is the mitigation of unemployment and stabilization of the economy. In the light of the above, over the years the various governments in Nigeria have enunciated and implemented a myriad of macroeconomic policy options especially fiscal policy in an attempt to tackle the problem of unemployment in Nigeria. For instance, in 1986, the Babangida administration introduced the national directorate of employment (NDE) programme which aimed at creating jobs for the youths (assisting the unemployed in search of gainful employment), thereby reducing the incidence of unemployment in the country. Others are; the rural electrification scheme, rural banking scheme, agricultural development programme, family support programme, empowerment programme (SURE-P), etc. But till date the achievement of this remains a subject of discuss both at the public and private fora. This is because unemployment rate in Nigeria has been increasing steadily. According to the president of NLC, Abdulwaheed Omar as reported in the Guardian news paper of Thursday, July 16, 2013, "Nigeria is faced with a monumental unemployment problem. We are facing an unemployment time bomb in our nation. The signal and strife and insecurity today are warning banners we cannot afford to ignore".

Furthermore, at the moment Nigeria is faced with the challenge of curbing increase in crime rate, unprecedented increase in prostitution, corruption, political tuggery, religious riots, communal clashes, insurgency/ terrorism, among others which to some extent are traceable to youth unemployment. Hence, the most disturbing thing in the country is the menace of unemployment. Nevertheless, the Studies by Okowa (1997), Gbosi (2002), Agiobenebo (2003) and Medee & Nenbee (2011) indicated also, that Nigeria's economy is still married by chromic unemployment, rising rate of inflation, dependence on foreign technology, monoculture foreign exchange earnings from crude oil, and

109

more. This means that the Nigerian economic environment has been relatively unstable. Specifically the economy has been characterized by rising rate of unemployment. In addition, it is no longer news that Nigeria's vision 2020 whose goal is to be counted among the first twenty economies in the world by 2020 cannot be attained in a socio-economic environment where unemployment is on the increase among a large segment of its population.

Nevertheless, it is accepted fact among economists that fiscal policy is a very important tool that can be used to influence macroeconomic performance as well as fine-tune and direct an economy to achieve policy goals including reduction in unemployment (full unemployment). However, despite several fiscal measures established since independence and given the importance of fiscal policy in macroeconomic management in Nigeria, unemployment has continued to escalate like wildfire in the country. For instance, in 2007, Nigeria's unemployment rate stood at 12.7 percent. The situation worsened again in 2008 when the nation's unemployment rate rose to 14.3 percent. While it was 19.7 percent in 2009, by 2010, it has risen to an unprecedented high of 21.1 percent and 21.6 percent in 2012 (*National Bureau of Statistics, Labour Force Survey, Dec. 2012*). Since then, there has not been any remarkable improvement in spite of all the laudable efforts of government at addressing the problem of unemployment, unemployment still remains a major problem in Nigeria. The reasons for this and likely remedies have not been fully explored. Hence, it is very important to examine empirically the impact of fiscal policy on unemployment in Nigeria. This study therefore, stands out to X-ray the impact of fiscal policy on unemployment in Nigeria. Specifically, the broad objective of this study is to examine the impact of fiscal policy (proxied by government capital expenditure and government recurrent expenditure) on unemployment in Nigeria from 1980 to 2014. The paper is divided into five sections namely: introduction, literature review, methodology, results and discussion and section five centres on conclusion and recommendations.

LITERATURE REVIEW

CONCEPTUAL FRAMEWORK
Concept of Fiscal Policy
It is no longer news that all governments have a variety of economic objectives, such as attainment of high rate of, or full employment, achievement of a high, raid and sustainable economic growth, maintenance of balance of payments equilibrium, exchange rate stability and low inflation, which contribute towards or are necessary to achieve the ultimate economic objective of increased welfare and living standards. A number of different types of economic policy can be used to achieve these objectives; amongst the policy readily employed is that of fiscal policy. In addition, fiscal policy entails government's 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. Akpakpan (1994) sees it as the deliberate use of government

income and expenditure to influence the level of economic activities in the country. According to Gbanador (2007), "Fiscal policy is a deliberate action undertaken by the government to achieve its economic objectives using the fiscal instruments of taxation, government spending and the budget deficit". Onuchuku and Adoghor (2000) see fiscal policy as changes in government expenditure and /or taxes design to achieve macroeconomic stability or objectives. They also describe it as changes in government expenditure and / or taxes geared towards increasing income and employment as well as promoting price stability. Supporting this, Ekine (2013) states that, "Fiscal policy is concerned with the action of the government to spend money or to collect money in taxes, with the purpose of influencing the condition of the national economy". Nevertheless, Fiscal policy can be expansionary or contractionary in nature. Expansionary fiscal policy involves increase in government expenditure and/or decrease in taxes with the aim of stimulating aggregate demand and hence the economy. Moreover, expansionary fiscal policy can be employed to tinker with the problem of unemployment.

The role of economic policy in the achievement of macroeconomic objectives has been extensively dealt with in Keynesian analysis of an activist macroeconomic policy. The Keynesian analysis leads to the conclusion that demand management policies can and should be used to improve macroeconomic performance. An activist macroeconomic policy involves setting monetary and fiscal variables in each time period at the values which are thought necessary to achieve the government's objectives. A basic premise of Keynesian economics is that the private sector is inherently unstable. It is subject to frequent and quantitatively important disturbances in the components of aggregate demand. It is the act of counter cyclical or stabilization policies to offset these private sector disturbances and so keep real output close to its market-clearing equilibrium time path. Activist stabilization policy can take two forms: it can either be discretionary or determined by some feedback rules which relate policy to current and lagged output. Discretionary policy involves the government or other authorities, such as the Central Bank, deciding in each period what the appropriate policy response should be given current circumstances. A feedback policy rule would establish some fixed formula for deciding what values the policy variables should take. This formula would remain unchanged over a considerable time span. An example of such a policy rule is one which states that the money supply is expanded at a rate equal to some fixed proportion, λ, of the deviation of current and lagged output from its market clearing equilibrium level. In contrast, a discretionary policy involves the authorities being able continually to vary their choice of λ and other policy parameters (Levacic and Rebman, 1976). The broad objectives of Keynesian macroeconomic policy are not in dispute, these objectives are full employment, a stable price level, the absence of significant deviations of output from its equilibrium time path, a satisfactory rate of economic growth, an equitable distribution of income, and balance of payment equilibrium. There exist, however, differing opinions, regarding the priorities accorded to these objectives. In fact, there is an even greater divergence of views on the means by which such objectives can be actualized.

Keynesian activist policy has come under increasing attack from the monetarist and classical schools, which regard the private sector as inherently stable. They do not deny that random disturbances occur in the private sector but they do not think that these are either large or further amplified by quantifying adjustments. Aggregate supply shocks are seen to be equally significant as the aggregate demand shocks emphasized by Keynesian. The private sector adjusts via relative price changes to such disturbances quite adequately, so active stabilization policy is not required. Furthermore, it (stabilization policy) may, if implemented increase rather than diminish fluctuations in output and employment.

Nevertheless, stabilization policy requires that policy makers can determine feasible targets, have a reasonable knowledge of the workings of instrumental variables and can effectively control the instrumental variables. The targets are those variables for which the government seeks desirable values. The targets are set with a view to maximizing social welfare. Instrumental variables, however, are those variables which the government can manipulate to achieve its economic objectives. Instrumental variables are necessarily exogenous variable as the government must be able to determine their values independently of the other variables, whereas tax revenues are not since their values are determined not only by the tax rates set by the government but also by the level of national income. Similarly, "high - powered" money is, in principle, an instrumental variable whereas the money supply is not. The quantity of money depends not only on the volume of high – powered money but also on the volume of Bank lending which is not directly under government control. The money supply is therefore regarded as an intermediate target. In order to estimate the levels at which the instrumental variables must be set, the policy makers need to know the model of the economy whose structure relates the endogenous variables to the exogenous variables, some of which are amenable to government control (Levacic and Rebman, 1976). A further important point to note is that since the economy is made up of interdependent behavioral relationship one cannot in general set one instrumental variable to determine the target. The whole set of target and instrumental variables to have to be looked at as a whole.

THE CONCEPT OF UNEMPLOYMENT

Unemployment is one of the major problems confronting the three–tiers of government in Nigeria. The scenario cuts across virtually all strata of society. Unemployment is a situation in which some people who fall within the ages of the working population, capable and willing to work are unable to obtain befitting work to do at the prevailing wage rate. Put differently, it is a situation in which people who are willing and able to work for others at the prevailing wage rate are unable to find jobs. The major or main causes of unemployment in Nigeria's economy in recent years include: bad economic policies, bad educational planning, corruption, global economic crises, poor performance of small–scale enterprises and imperfect flow of market information, rapid population growth, etc.

Moreover, the main types of unemployment as identified by Akpakpan (1999) are as follows: "**Frictional Unemployment:** This is the unemployment that results from the normal workings of the labour market, i.e. the fact that at any point in time there will be people changing jobs. It is the unemployment suffered by people who are in the process of changing jobs. Thus, frictional unemployment is a temporary kind of unemployment.

Structural Unemployment: This is the unemployment suffered by workers who have lost their jobs because of structural changes in the economy. An example is the case of people who have lost their jobs because of automation in the production process. Another example is the case of people who have lost their jobs because the things skills help to produce are no longer demanded. People who suffer this kind of unemployed often have to retrain themselves for other kinds of jobs if they must avoid prolonged periods of unemployment.

Seasonal Unemployment: This is the unemployment that is due to changes of the seasons of the year. It is mainly a feature of agrarian economic activities are very much affected by the seasons.

Cyclical Unemployment: Cyclical unemployment, as the name implies, rustles from the fluctuation in economic activity, i.e. the cycles in business activities. It rises during a recession, gets worse as a rescission turns into a depression and falls during a boom (i.e. an expansion). Because of these different types of unemployment, an economy – particularly a market economy – cannot be without some level of unemployment. This means that when economists talk of full employment they do not mean a situation of zero unemployment".

MAJOR CAUSES OF NIGERIA'S CURRENT UNEMPLOYMENT PROBLEM

Theories of unemployment have provided a good framework for our understanding of the nature of unemployment in an economy. However, these theories have not best explained the causes of Nigeria's current unemployment problem. But in recent years, several factors have been identified to be responsible for Nigeria's current unemployment problem. These factors are bad educational planning, bad economic policies, global economic crisis, rapid population growth, poor performance of small and medium scale enterprises, and imperfect flow of labour market information.

    i.   **Bad Educational Planning**: It is a widely held view that the high rate of unemployment among Nigerian graduates is attributed to our educational system. The proliferation of higher education institutions and those seeking higher education for white collar jobs is the main cause of the problem. This is closely related to the problem mismatch between educational planning and economic planning. Specifically, the rate of graduates turns out rises faster than the expansion of job opportunities.

ii.   **Bad Economic Policies:** Over the years, the Nigerian Government had adopted and implemented several economic policies. Some of these policies did not create new jobs. For example, the SAP adopted since 1986 and is being implementing in the country today has actually worsened Nigeria's unemployment problems. Most of the economic reforms have led to rising interest and exchange rates thereby causing many private enterprises to cut down on their workforce. These policies have also succeeded in increasing the frequency of retrenchment in both the public and private sectors of Nigerian economy.

iii. **Global Economic Crisis:** Nigeria's current unemployment problem is also attributed to global economic and financial crisis. Most of the advanced nations of the world had been experiencing serious macroeconomic problems in recent years. For example, the U.S Great Recession of 2008 adversely affected all sectors of the Nigerian economy. The U.S recession led to a decline in the demand for Nigeria's crude oil thereby reducing foreign exchange earnings and government revenue. This unpleasant development eventually worsened Nigeria's unemployment problem.

iv.   **Poor Performance of Small and Medium Scale Industries:** The Nigerian industrial sector is predominantly dominated by small and medium scale enterprises. In recent years, most of these enterprises have been operating at a marginal level. Any increase in costs of production usually forces many of these enterprises out of business. A case in point is what happened to Nigeria' Flour Mill Industry, when an embargo was placed on the importation of wheat, one of its main raw materials. The industry had to depend largely on local raw materials which of course were scarce and relatively expensive. Those enterprises that could not relate the increase in costs to the productive capacity had no other option than reduce their workforce or fold up. This development eventually led to a fall in employment and the nation's unemployment worsened again. We still have the same experience today.

v.   **Rapid Population Growth:** In recent years, Nigeria's population is on the increase. But the growth of the economy cannot catch up with rapid population growth. Consequently, the swelling of the population, spherically in the cities had led to high levels of unemployment in Nigeria.

vi.   **Imperfect Flow of Labour Market Information:** A market is a place where exchange takes place. It is where demand and supply work themselves out. In every market there are buyers and sellers. The labour market is no exception. There are imperfections in the labour market which eventually create the natural rate of unemployment. Natural rate of unemployment arises due to imperfections and frictions in the labour market. Labour market information is probably non-existent in Nigeria. If it does, it is usually unreliable and misleading. Lack of labour market information hinders the mobility of labour across geographical regions. For example, rural-dwellers may not have information on job openings in the urban areas. As a result, they remain unemployed (Gbosi 2015).

THE CONCEPT OF FULL EMPLOYMENT

According to Akpakpan (1999), there is no universal definition of full employment. Perhaps the best definition would be a situation in which the only unemployment that exists is frictional. By this definition, the state of employment or unemployment described as full employment would differ from country to country depending on the size of the frictionally unemployed workers. Commenting further, he submits that in the more – developed countries (MDCs) where record keeping is taken seriously and statistics are fairly accurate, it is often possible to have an idea of the level of frictional unemployment at certain time periods on the basis of which statements can be made concerning how near or how far away the economy is from full employment. But, in Nigeria, as it is in many others less – developed countries (LDCs), the poor state of statistical information makes it difficult for analysts to make concrete statements about the level of unemployment and therefore, how near or how far away from full employment the economy is. What is done most of the time is to undertake a small – scale survey of the state of the problem and use the data obtained to make some projections.

According to Akpakpan (1999) "Unemployment has serious negative consequence wherever it occurs. The consequences are both economic and social. The economic consequence of unemployment is when the economy does not generate enough jobs to employ all those who are willing to work, a valuable resource is lost. Potential goods and services that might have been enjoyed by consumers are lost forever. This is the real economic cost of high unemployment, and no insurance plan can eliminate it. This is why economists often say that unemployment is a terrible waste of resource that should be avoided. On the other hand, unemployed people feel left out by society, and the society is divided. Some countries have some forms of unemployment insurance plan, i.e. some benefit scheme to cushion the unemployed against the unpleased experiences of their condition. But where there are no such plans, the immediate social consequence of the problem usually is raising poverty. In addition, Poverty and the feeling of being left out by the society, often drive so unemployed persons into deviant acts. Such acts impose severe costs on the society for example, losses due to damages that may be done to national assets. Other consequences include losses due to the diversion of resources from productive activities it preventing or fighting deviant acts, and losses due to the general feeling of insecure that usually characterizes life in such a society. The point that is being made here that some of the people who do bad things in the society were not born to be they have driven into those acts by economic and social conditions".

THEORETICAL FRAMEWORK
The Classical Theory of Unemployment

The classical theory of income and employment is based on the Say's law of market which states that "supply creates its own demand". They argued that prices and wages in the capitalist economy are highly flexible to the extent that if there is excess demand or supply, prices will adjust in a sufficient manner that will clear the market. They believed

that the economy is always at full-employment equilibrium and that the economy is self adjusting to any dislocation in the form of unemployment or inflation. Therefore, there is no need for government participation. Their view was that involuntary unemployment was a short term phenomena resulting from a discrepancy between the price level and the wage level. Unemployment was the result of too high real wages. The classicalists argued that the demand for too high wages by worker without a corresponding increase in productivity renders production costly thereby discouraging competitiveness among local industries and foreign industries. The implication of this trend is the reduction of sales, which further leads to mass retrenchment of workers resulting to unemployment.

According to the classical theory, demand for labour will always equal the supply of labour at the prevailing money wage rate. Therefore, if for any reason, there is an increase in the supply of labour, the money wage would fall. All a result of this, more workers could be employed. Similarly, if there is a shortage of workers the money wage would rise thereby eliminating the shortage. Thus, in the classical sense, there will be no voluntary unemployment. But, the materialization of the 1930's Great Depression in the United States of America which was characterized by widespread unemployment disproved the classical theory.

Keynesian Theory of Unemployment

John M. Keynes (1936), a British economist and the father of macroeconomics challenged the idea of the classicalists and stated that prices and wages are not highly flexible to the extent to clear the level of unemployment that existed. In his theory of income and employment, Keynes stated that all the income earned by households are not consume, (do not go for the purchase of national output) some are save. Therefore, the economy cannot always be at full employment equilibrium. He further stated that the unemployment problem that existed was as a result of insufficient spending in the system (insufficient aggregate demand). Hence, he advocated for government intervention. While the classical argued for no government intervention, Keynes argued that there is need for government to intervene in the economy in other to stimulate aggregate demand. However, the argument changed in favour of government intervention in the workings of the economy. Thus, government intervention began to be more popular in the management of economies. Strictly speaking, J. M. Keynes developed a theory that provided both an explanation for the prolonged unemployment of the 1930s and a recipe for how to generate a recovery. Keynes' analysis indicated that fiscal policy could be used to maintain a high level of output and employment. According to the Keynesian theory of employment, all fiscal measures that accelerate the pace of economic growth promote employment also. In line with the Keynesian theory, most economists, especially macroeconomists would agree that expansionary fiscal policy stimulates employment and lowers unemployment.

In addition, Keynes in his famous book titled "the General theory of Employment, Interest and money noted that American workers were willing to accept a reduction in

money wage in order to secure more jobs. They were prepared to accept an equivalent reduction in the real wage rates which were brought about by an increase in the price level or inflation. But Keynes did not attribute this behaviour to irrationality on the part of America workers. Rather, he attributed it to what he termed "money illusion". Furthermore, Cyclical or Keynesian unemployment also known as demand deficient unemployment occurs when there is no aggregate demand in the economy. It gets its name because it varies with the business cycle, though can also be persistent as during the great depression of the 1930s. Cyclical unemployment rises during economic down turns and falls when the economy improves. Keynes argues that this type of unemployment exist due to inadequate effective demand. Demand for most goods and services falls, less production is needed; wages do not fall to meet the equilibrium level and mass unemployment results. The Keynesian framework, as examined by Thirlwal (1979), postulate that increase in employment, capital stock and technological change are largely endogenous. Thus the growth of employment is demand determined and that the fundamental determinants of long term growth of output also influence the growth of employment.

In the Keynesian theory, employment depends upon effective demand which results in increased output, output creates income and income provides employment. He regarded employment as a function of income. Effective demand is determined by aggregate supply and demand functions. The aggregate supply function depends on physical or technical conditions which do not change in the short run, thus it remains stable. Keynes concentrated on aggregate demand function to fight depression and unemployment. Thus, employment depends on aggregate demands which in turn are determined by consumption demand and investment demand. According to Keynes, employment can be increased by increasing consumption and or investment. Consumption depends on income C(y) and when income rises, savings rises. Consumption can be increased by raising the propensity to consume in order to increase income and employment but the psychology of the people (taste, habit etc) which are also constant in the short run. Therefore, the propensity to consume is stable. Employment thus depends on investment.

EMPIRICAL LITERATURE

A number of studies have empirically investigated the relationship between fiscal policy and unemployment. For instance, *Kayode, Samuel and Silas (2014)* examine the rising rate of unemployment in Nigeria: the socio-economic and political implications the incidence of unemployment in Nigeria. They argued that unemployment rate in this 21st century is alarming. The rates keep on rising without any appreciable effort to cushion the effects. Their findings revealed that corruption in both public and private and at the individual levels, industrial decay, and neglect of the agricultural sector are among many others factors responsible for the scourge. It was also revealed that widespread poverty, youth restiveness, high rate of social vices and criminal activities are prevalent because of joblessness, and if not controlled, apathy, cynicism and revolution might become the consequent. The study therefore, recommends urgent intervention in the sensitive sectors

of the economy such as power, industry, and agricultural sectors in order to create employment opportunities. Also, the fight against corruption should be intensified.

Arewa and Nwakahma (2013) investigates the long-run relationship between government expenditures and a set of macroeconomic variables (GDP), consumer price index and unemployment) using annual data collected from CBN statistical bulletin for a period of 1981 to 2011. The study adopts Johansson multivariate co-integration for its estimation procedure and discovers that there is long-run relationship between government expenditure and the specified macroeconomic variables. It also discovers that an increase in capital expenditure improves economic bliss, while recurrent expenditure is detrimental to growth. Finally, their findings show that most of the variables do not Granger cause each other, but however, recurrent expenditure Granger causes prices, in the same veil capital expenditure does granger cause unemployment. Elizabeth (2013) examines the relationship between fiscal deficit and macroeconomic performance in Nigeria over the period 1980 to 2010. The study employed the Ordinary Least Square in estimating the equation. Preliminary test of stationarity and co-integration of variables using the Augmented Dickey. Fuller (ADF) test and the co-integration test using the Engle Granger procedure were conducted respectively. However, empirical findings showed that fiscal deficits even though that it met the economic a prior in terms of its negative coefficients yet, did not significantly affect macroeconomic output. The result also shows a bilateral causality relationship between government deficit and unemployment. Based on these findings, appropriate recommendations were made.

Imoisi (2013) examines problems surrounding procedures of fiscal policy and their influence on economic growth in Nigeria from 1970-2009. The research was conducted using an Ordinary Least Squares (OLS) technique of multiple regression models using statistical time series data from 1970-2009. The estimated result shows a positive relationship between the dependent variable (real gross domestic product) and the Independent variables (Government Expenditure and Taxes). This implies that the government expenditure is a strong determinant of economic growth especially when properly directed towards the provision of adequate basic infrastructural facilities to stabilize investment activities. The regression result also shows that tax was not properly signed and this could largely be credited to poor tax administration in Nigeria and over dependence of government on earnings from crude oil in funding her projects. Accordingly, the result agreed with the Keynesian theory, which supports that government involvement through the use of fiscal policy could accelerate economic activities hence growth. Based on the results, it was therefore suggested that there should be a total renovation of the tax system in Nigeria and the federal government of Nigeria should intensify her spending especially in the productive sectors of the economy that has the capability to contribute to economic growth in the country. Owolabi (2011) made an econometric analysis of the relative effectiveness of fiscal policy management in Nigeria, between 1970 and 2007. It employed reduced forms model in addition to Beta coefficient, Theil's inequality and Root Means Square Error (RMSE) techniques to

investigate the satiability and effectiveness of the estimated fiscal model which represent government spending, during and after estimation periods. The results reveal stability of the models and further confirmed the fact that government spending is the major determinant which influences and predict Nigeria macro economic activity. There is what appears to be a manifestation of the so-called 'crowding out' effects of fiscal policy actions in Nigeria. These are associated with the negative sings assumed by coefficients of the lagged fiscal policy variables (except recurrent expenditures). Chowdhury (1986) in his study of monetary and fiscal impacts on economic activity in Bangladesh was also of the opinion that fiscal rather than monetary action had greater influence on economic activities. He also made use of the ordinary least square (OLS) technique in his empirical investigation. He adopted Sf. Louis equation in estimating the monetary and fiscal variables. The modified model estimated here is of the form:

$$Y_t = C_o + \Sigma m_1 M_{t-1} + \Sigma f1Ft - 1 + \Sigma e1Et - 1 + \mu$$

Where Y, M, F, and E represent the growth rate of nominal income, money supply, government expenditures and exports respectively. In analyzing his results he confirmed the result of some authors and concluded that fiscal actions exert greater impact on economic activity in Bangladesh than monetary actions this result was confirmed with the t-statistics of the summed coefficients, which is significantly larger than the corresponding value for the monetary summed coefficients. It follows from this study that fiscal policy impacts on nominal income are more predictable than the monetary impact.

METHOD OF STUDY

The study is analytical in nature because of the kind of data used. *The econometric method of Co-integration/Error Correction Mechanism was employed as the analytical tool* because the Co-integration technique establishes long run equilibrium relationship between the variables in the model. The model for the study and the Apriori, expectations is specified as:

$$UN_t = \alpha_0 + \alpha_1 \, GCE_t + \alpha_2 \, GRE_t + \alpha_3 \, GTR_t + E_t \qquad (1.1)$$

Where: U= Unemployment rate, GCE = Government capital expenditure (Proxied for Fiscal Policy), GRE = Government recurrent expenditure (Proxied for Fiscal Policy) and GTR = Government tax revenue. α_0 =Intercept Parameter, E= Error Term, α_1 - α_2 = Slope Parameters. On the Apriori, it is expected that; $\alpha_1 < 0$, $\alpha_2 < 0$ and $\alpha_3 < 0$

The unit root test via the ADF test precedes the Cointegration and ECM test in order to test for stationarity of the variables. The unit root test used in this work is the Augmented Dickey-Fuller (ADF). The general form of ADF is estimated by the following regression

$$\Delta y_t = \alpha_0 + \alpha_1 y_{t-1} + \Sigma \alpha_1 \Delta y_i + \delta_t + U_t \qquad (1.2)$$

Note: y is a time series, t is a linear time trend, Δ is the first difference operator, α_0 is a constant, n is the optimum number of lags in the independent variables and U is random

error term. Therefore, assuming the integration of order I(1) and co-integration between the levels of unemployment (UN$_t$), government capital expenditure (GCE$_t$), government recurrent expenditure (GRE$_t$) and government tax revenue (GTR$_t$). The following ECM, according to Engel, Johansen and Granger (1987), are formulated:

$$\Delta UN_t = ln\delta O + \Sigma \, \delta i\Delta \, GCE_t + \Sigma\delta 2\Delta GRE_t + \Sigma\delta 3\Delta GRE_t + ECMt_{-1} \qquad (1.3)$$

From equation 1.3, Δ indicates difference operator, UN represents the dependent variable, t implies time, δO is the intercept and ECMt-1 is the error correction mechanism obtained from the long-run co-integration regression. While δ_1, δ_2 $_{and}$ δ_3 are the coefficients of explanatory variables. The short run which is inevitable to achieve the long run equilibrium can be provided by the causal relationship between the variables (Granger, 1986).

Table I: Test of Stationarity (Augmented Dickey-Fuller Test Results)

Variables	ADF Test	Critical Value			Order of integration
		1% critical value	5% Critical value	10% critical value	
UN	–7.344433	–3.653730	–2.957110	–2.617434	1(1) = Order one
GCE	4.585351	–3.699871	–2.976263	–2.627420	1(0) = Order Zero
GRE	3.948359	–3.711457	–2.981038	–2.629906	1(0) = Order Zero
GTR	–4.242337	–3.670170	–2.963972	–2.621007	1(1) = Order one

Source: Author's Computation

The unit root test reported in table one above show that the Government Capital Expenditure (GCE) and Government Recurrent Expenditure (GRE) were stationary at ordinary level (O). On the other hand, Unemployment (UN) and Government Tax Revenue (GTR) could not attain stationarity at ordinary level. In line with Granger and Newbold (1973), the variables were differenced and were found to be stationary at order one (1). Having established stationarity, the long-run relationship among the variables was conducted using the Johansen's co-integration framework.

Jonhansen Co-integration Test: Co-integration is conducted based on the test proposed by Johansen. According to Iyoha and Ekanem, (2002) co-integration deals with the methodology of modeling non-stationary time series variables. For detail result of the Johansen co-integration, see the table two below.

Table II: Jonhansen Co-integration Test

Eigen value	Trace Statistic	5% critical value	Prob. **	Hypothesis of CE(s)
0.554118	61.22127	47.85613	0.0017	None *
0.430174	35.37487	29.79707	0.0103	At most 1 *
0.367698	17.37731	15.49471	0.0257	At most 2 *
0.081168	2.708878	3.841466	0.0998	At most 3

Source: Author's Computation

From table II above, there are three co- integrating equations at 5% level of significance. This is because the Trace Statistic is greater than critical values at 5%. Moreover, this is strong evidence from the unit root test conducted, where it was observed that all the four variables were stationary at various order. Given the existence of three co-integrating equations, the requirement for fitting in an error correction model is satisfied.

Table I11: Over Parameterized Error Correction Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.033336	0.071769	0.464482	0.6494
DLOG(UN(-1))	-0.348759	0.339767	-1.026464	0.3221
DLOG(UN(-2))	-0.095552	0.226909	-0.421104	0.6801
DLOG(UN(-3))	0.026367	0.162468	0.162293	0.8734
DLOG(GCE)	-0.260850	0.106757	-2.443402	0.0284
DLOG(GCE(-1))	-0.076501	0.163435	-0.468081	0.6469
DLOG(GCE(-2))	0.192133	0.141098	1.361702	0.1948
DLOG(GCE(-3))	0.068396	0.121244	0.564121	0.5816
DLOG(GRE)	0.019328	0.095371	0.202663	0.8423
DLOG(GRE(-1))	-0.127306	0.130243	-0.977451	0.3449
DLOG(GRE(-2))	-0.190281	0.155327	-1.225038	0.2408
DLOG(GRE(-3))	-0.055327	0.142274	-0.388877	0.7032
DLOG(GTR)	-0.008537	0.105940	-0.080582	0.9369
DLOG(GTR(-1))	0.124796	0.114370	1.091158	0.2936
DLOG(GTR(-2))	0.200595	0.114944	1.745153	0.1029
DLOG(GTR(-3))	0.065141	0.113088	0.576020	0.5737
ECM(-1)	-0.039694	0.058186	-0.682203	0.5062

R-squared	0.703941	Mean dependent var	0.00856

Adjusted R-squared	0.365588	S.D. dependent var	0.183817
S.E. of regression	0.146410	Akaike info criterion	-0.702963
Sum squared resid	0.300104	Schwarz criterion	0.083417
Log likelihood	27.89592	Hannan-Quinn criter.	-0.446622
F-statistic	2.080493	Durbin-Watson stat	2.345911
Prob(F-statistic)	0.087709		

Table III above shows the results of the over-parameterized error correction model. The reason for the over-parameterized specification is to display or show the main dynamic processes in the model and as well sets the lag length such that the dynamic processes would not be constrained by too long a lag length. The over-parameterized is transform in order to achieve the parsimonious ECM to make it more interpretable for policy implementation. The parsimonious error correction result is presented in table IV below.

Table IV: Parsimonious Error Correction Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.045325	0.043264	1.047660	0.3073
DLOG(UN(-1))	-0.127128	0.294241	-0.432054	0.6703
DLOG(UN(-2))	-0.171074	0.225936	-0.757182	0.4578
DLOG(UN(-3))	-0.097026	0.151750	-0.639381	0.5298
DLOG(GCE)	0.180120	0.099689	-1.806811	0.0859
DLOG(GCE(-3))	0.032873	0.116234	0.282821	0.7802
DLOG(GRE)	0.054570	0.066720	0.817894	0.4231
DLOG(GRE(-3))	-0.036128	0.115338	-0.313239	0.7573
DLOG(GTR)	-0.056633	0.094947	-0.596469	0.5576
DLOG(GTR(-3))	0.044893	0.092515	0.485247	0.6328
ECM(-1)	-0.075678	0.036211	-2.089910	0.0496

R-squared	0.549840	Mean dependent var	0.008561
Adjusted R-squared	0.324761	S.D. dependent var	0.183817
S.E. of regression	0.151048	Akaike info criterion	-

			0.671016
			-
Sum squared resid	0.456310	Schwarz criterion	0.162182
		Hannan-Quinn	-
Log likelihood	21.40074	criter.	0.505148
F-statistic	2.442869	Durbin-Watson stat	2.098217
Prob(F-statistic)	0.042731		

Source: *Author's Computation*

The result of the estimated ECM in table IV above, suggests that the overall fit is satisfactory with an R^2 of 0.5498. Thus, 55 percent systematic variation in Unemployment is explained by Government Capital Expenditure, Government Recurrent Expenditure and Government Tax revenue. Also, the overall model is significant at 5 percent level of significance as shown by the F-statistic of 2.442869. The coefficient of the Error Correction Model is negative and statistically significant at 5 percent at level, indicating that -0.075678 percent of the disequilibrium in the previous year would be corrected in the current year. This result reveals that fiscal policy variables adjust rapidly to long run dynamic during the period of our study. The Durbin Watson value of 2.09 suggests a lesser level of autocorrelation.

Nevertheless, the coefficients of the current form of Government Capital Expenditure appear with the right sign (negative). This outcome conforms to the Apriori expectations. This suggests that an increase in Government Capital Expenditure has the potential to create employment and hence reduce unemployment rate in Nigeria during the period of study. Put differently, it also suggests that a well managed government capital expenditure will help to reduce unemployment in Nigeria during the period of study. Moreover, the coefficient of the current form of government capital expenditure is statistically significant at 5 percent level. This means that in the long run government capital expenditure significantly impact on unemployment in Nigeria. The implication of this result is that government capital expenditure as a fiscal policy tool will significantly reduce unemployment. Meanwhile, the coefficient of the current form of government recurrent expenditure appear with the wrong sign (positive) and statistically insignificant at 5 percent level. Meaning that government recurrent expenditure does not impact on unemployment. In addition, the coefficient of the current form of government tax revenue appear with the right sign but statistically insignificant at 5 percent level. Meaning that government tax revenue impact on unemployment but not significantly. In order words, government tax revenue alone will not reduce unemployment in Nigeria. Hence, other variables are needed with the government tax revenue in order to significantly reduce unemployment in Nigeria. This scenario depicts a true picture of Nigeria where unemployment is on the increase because efforts targeted at creating jobs in order to reduce the rate of unemployment in Nigeria have proved abortive. The implication of this result is that fiscal policy of Government recurrent Expenditure and government tax

revenue have not been well articulated and coordinated towards increasing employment and hence reduce unemployment in Nigeria during the period of study. Theoretically, the parsimonious ECM result shows that a well coordinated macroeconomic policy will help to enhance employment during the period covered by this study.

CONCLUSION AND RECOMMENDATIONS

The study examines the impact of fiscal policy on unemployment in Nigeria from 1980 – 2014. This is because one of the primary objectives of fiscal policy is to smooth out the fluctuations in economic activities that often cause unemployment. Put differently, an important role of fiscal policy is the mitigation of unemployment and stabilization of the economy. Despite several fiscal measures established since independence and given the importance of fiscal policy in macroeconomic management in Nigeria, unemployment has continued to escalate like wildfire in the country. However, the study adopted the co-integration/error correction model on time series data from 1980 to 2014. Nevertheless, the study regressed fiscal policy proxied by government capital, recurrent expenditure and Government tax revenue on unemployment rate. The regression of the long run result reveals that about 55 percent systematic variation in Unemployment is explained by the three explanatory variables such as: government capital expenditure, government recurrent expenditure and government tax revenue. The F-statistic is significant at the 5% level. The result reveals that government capital expenditure impact on unemployment in Nigeria significantly, while government recurrent expenditure and government tax revenue do not significantly impact on unemployment in Nigeria. The result also reveals that there is a long run relationship between fiscal policy and unemployment in Nigeria, as evidenced by the ECM.

In the light of the above, it is obvious that fiscal policy tools of government capital expenditure if properly managed can be effective in reducing unemployment in Nigeria. On the basis of the findings of the study, the following recommendations amongst others were proffered towards enhancing the impact of fiscal policy on unemployment in Nigeria. An expansionary fiscal policy measures should be encouraged because they have the ability to increase employment and hence reduce unemployment in Nigeria. That is, adequate fiscal policies that will create employment opportunities should be enhanced. Government should increase her capital expenditure and ensure a well combination and coordination of both fiscal and other policies to increase employment opportunities in Nigeria. Government should avoid mismanagement of national resources, misappropriation of funds and wasteful spending. Fiscal policy should be given more attention towards reducing unemployment in Nigeria. Government should create more entrepreneurial skill acquisition programmes to aid self employment which in turn will reduce unemployment. Finally, there should be smooth co-ordination and consistency in fiscal pursuits to solve the problem of unemployment in Nigeria.

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