

Okpala Cyril Sunday

Unemployment and Output Growth in Nigeria

Department of Economics, Ebonyi State University, Abakaliki

INTRODUCTION

One of the leading causes of poverty is the shortage of opportunities for gainful employment. Unemployment with its economic and social implications is one of the most pressing problems facing the Nigerian economy today; high rate of unemployment signals a deficiency in the labour market deepens poverty incidence and perpetuates inefficient standards of living (World Bank, 1994)[1]. Unemployment has been categorized as one of the staid impediments to social progress. Apart from representing a colossal waste of a country's manpower, resources, it generates welfare loss in terms of lower output thereby leading to lower income and wellbeing [2],[3].

During the first two decades of independence (1960s and 1970s), Nigeria's unemployment rate were comparable to or in some industrialized economies. However, beginning 1980s, the country began recording increases in unemployment, which has subsisted to date. This unhealthy situation evolved after the oil boom of 1970s and remained so till date prior to the oil boom, the Nigerian economy was largely agrarian and over 70.0 percent of the working population were engaged in agricultural activities in the rural areas. Wage rates were comparable to international standards; indeed an average Nigerian worker could afford a decent living.

In the 1960s, the employment policies focused on shifting labour from agricultural sector to the manufacturing sector. However, the intrusion of the military and subsequent alteration of the Nigeria constitution including the introduction of the land tenure system, whittle down the deployment of advance technology in the agricultural sector. Moreover, at that time, economic policies

concentrated more on the development of the manufacturing sector; under the “import substitution strategy” the immediate outcome of this was that labour moved from agricultural sector to the services sector, with little productivity gains. Thus, both the agricultural and manufacturing sectors lost out, and remained underdeveloped. The oil boom in Nigeria initiated the rural-urban drift of the population and adversely affecting agricultural output. Expanded revenue profile of government created the illusion that jobs creation was a primary function of the public sector as the civil service became distended; jobs were created without actual value being added to the government services. However, as oil fortunes dwindled the reality of unsustainable and over bloated public sector and a private sector that lacked capacity to absorb all new entrants into the labour market became real.

The deficiency in the private sector’s ability to perform creditably in terms of employment generation was partly attributed to government policies that crowded out the sector from loans market. It was not until the late 1990s that need for public-private partnership became popular and some attention began to be paid to self-employment. The rapid depreciation of the domestic currency, the naira and the concomitant inflationary pressures decreased the value of real incomes, thereby creating a vicious cycle of poverty and unemployment.

The economic realities of the oil boom dictated a change in policy focus of government towards simultaneous improvement in all sectors. However, dwindling government revenue made objective of economic diversification tricky. To date, the country is still struggling to synchronize agriculture and manufacturing sector in order to create the required backward and forward linkages. Thus, in Nigeria and since the early 1980s, unemployment has assumed alarming and disturbing dimensions with millions of able bodied persons who are willing to accept jobs at prevailing rates unable to find placements[4].

In the first five years of the 1980s for instance, Nigeria had a composite unemployment rate that was consistently over 5.0 percent with the exception of 1982 when 4.3 percent unemployment rate was recorded. However, while the unborn

unemployment rates increased from 4.4 to 5.2 percent during the same period. The composite registered unemployment rate in the second half of 1980s increased from 5.3 percent in 1986 to 7.0 percent in 1987 and thereafter declined gradually to 4.5 percent in 1989. In the decades of 1990s, the official unemployment figures were generally below 3.5 percent, with the highest rate of 3.5 percent registered in 1990 and the lowest rate of 1.8 percent recorded in 1995 (Balogun, 2003)[5]. In 2000s, the composite unemployment rate increased to 18.1 percent while the urban and rural unemployment rates were 14.2 percent and 19.8 percent, respectively. The rate declined gradually to 12.2 percent in 2002, nudged to 14.8 percent in 2003 before decelerating to 11.8 percent in 2004. However, the rate increased gradually from 11.9 percent in 2005 to 26.0 percent in 2013.

The performance of both the urban and rural rate maintained a similar trend during the period (National Bureau of Statistics, 2013)[6]. The demographics of unemployment reported by Central Bank of Nigeria (2004)[7] indicated that unemployment rate had been unevenly distributed across the age groups with young people bearing the burden of unemployment. The unemployed persons are mostly youth aged 15 - 24 years. The proportion of this category of unemployed fluctuated between 71.1 and 41.9 percent during 1980 - 2003 periods. It recorded an annual average of 59.4percent during the period. This outcome revalidates the dominance of secondary school leavers among the unemployed since most of them fall into this age group.

STATEMENT OF THE PROBLEM

In general, unemployment arises whenever the supply of labour exceeds the demand for labour at prevailing wage rate. Causes of unemployment can therefore be analyzed from both the supply and the demand sides of the labour market. On the supply side there is rapidly growing urban labour force arising from rural-urban migrations. Adebayo (1999)[8], opined that rural-urban migration is usually explained in terms of push-pull factors. The push factors include the pressure resulting from man-land ratio in the rural areas, and the existence of serious

underemployment arising from seasonal cycle of climate. These factors are further strengthened in Nigeria by the lack of infrastructural facilities, which makes rural life unappealing. The pull factors include a wide rural-urban income differential in favour of urban dwellers and a presumed higher probability of securing lucrative employment in the cities. Added to these are, the concentration of social amenities in the urban centers. This implies that the rural areas are for most of the period neglected in the allocation of social and economic opportunities.

Another supply side factor facing Nigeria is rapid population growth. Based on the 2006 population census, future projection indicate that country's population could reach 175 million by the year 2015, given the annual growth rate of 2.8 percent. It argued that high population growth rate has resulted in rapid growth of the labour force which far outstripped the supply of jobs. Todaro (1992)[9] identified continuous transfer of economic activities from rural to urban areas as one of the keys causes of unemployment. There are several factors that account for this outlook, the first is demographic. Not only is the aggregate population increasing faster, but also the proportion of the youths (ages 15 - 24) in total population is growing, a phenomenon uncommon in the rest of the world (African Employment Report, 2010). A second factor pertains to the enormous expansion in school enrolment ensuing increase in the number of school leavers seeking jobs. In times when the employment situation is bleak, new school leavers, on account of their inexperience, are the first to suffer.

Other factors are policy induced, and they are relevant to the extent that policies affect the pattern of whatever development that takes place and its capacity to generate jobs. Thus, policies with respect to land tenure, taxation, wages, education, technology and a host of others have important bearing as it can either promote or hamper growth or employment generation. Oni (1994)[10] noted that high unemployment incidence of secondary school leavers is a reflection of improper co-ordination of the educational system. Lambo (1987)[11] identified the government expenditure policy whereby most of government projects (industries

and public utilities) were concentrated in urban areas with utter neglect of the rural areas because of its tendency to encourage mass exodus of rural skilled and unskilled labour from villages into urban centers, thus causing urban unemployment. As indicated earlier, the incidence of unemployment in Nigeria has been cavernous, cutting across all facets of age groups, educational strata and geographical entities. One peculiar feature of the unemployment in Nigeria is that it was more endemic in the early 1980s. The unemployment rate rose from 4.3 percent in 1976 to 6.4 percent in 1980. Though it recorded some marginal decline between 1981 and 1986, the rate was relatively higher than what obtained in the natural unemployment rate of 3.0 percent (Onwioduokit, 1998)[12]. The emergence of the structural and frictional unemployment coupled with the lack of job placement for fresh graduates, compounded the unemployment situation in the country. As observed by Umo (1996)[13], an annual average of about 0.15 million fresh graduates enter the Nigerian labour market, with only about 10.0 percent of that number getting employment. This demonstrated the sovereignty of the unemployment problem.

RESEARCH QUESTIONS

This research work shall seek relevant answers to these posers otherwise referred to as the research questions. They include:

- 1) To what extent does unemployment impact on output growth in Nigeria?
- 2) Is there any significant long run equilibrium relationship existing between unemployment and output growth in Nigeria?

OBJECTIVES OF THE STUDY

The primary objective of this study is to appraise the effect of unemployment on output growth in Nigeria. Thus, the objective that will guide this study are as follows:

- 1) To determine the relationship between unemployment and output growth in Nigeria.

- 2) To determine if there is any long run equilibrium relationship existing between unemployment and output growth in Nigeria.

RESEARCH HYPOTHESIS

This research work shall be guided by the following null hypothesis:

- 1) Unemployment has no significant impact on output growth in Nigeria.
- 2) There is no significant long run relationship existing between unemployment and output growth in Nigeria.

SIGNIFICANCE OF THE STUDY

The significance of this study can be drawn from its specific objectives. One of the macro-economic goals of any country is the actualization of full employment.

Therefore, unemployment in any system is seen as a policy failure and there is always concerted effort on the part of the government in checkmating the impact of unemployment in an economy. The study of unemployment is important to policymakers, politicians and students of economics.

To the policymakers ascertaining the rate of unemployment in an economy to desired height, the policymaker with the knowledge of the state of unemployment in the system stands the best chance of controlling it through appropriate initiative like poverty eradication programmes and creation of employment opportunities that touches the lives of the population.

The study which is on Nigeria is more recent and will definitely expose the existing relationship between unemployment and output growth in the country (Nigeria).

The study shall also be useful to the following individual or groups:

- ❖ **The Central Bank:** The Central Bank of Nigeria whose duty among others, is to assist government in the implementation of policies will find the study relevant as it shall form the basis for valuable pieces of advice to government on some of the dangers that may be identified by the study.
- ❖ **The Academia:** Members of the academia will find the study relevant as it will also form basis for further research and a reference tool for academic works.

SCOPE AND LIMITATIONS OF THE STUDY

This research work covers the study of unemployment and output growth in Nigeria from the period of 1980 - 2014. Though the research work would make references to the related studies of other economies of the world with a view to reviewing related literature on the subject matter; data for this work shall only be on Nigerian economy. Such variables shall include those related in existing literature to unemployment and output growth. Data for this study shall be secondary, majorly from government own institutions like Central Bank of Nigeria.

REVIEW OF RELATED LITERATURE

THEORETICAL LITERATURE

HUTT'S CLASSICAL THEORY OF UNEMPLOYMENT

More so than any other economist, John M. Keynes decisively shifted academia's attention from the theory of employment to that of unemployment. He replaced the classical theory of wage determination with his own, stressing the possibility of involuntary unemployment. What interested economists now was the phenomenon of "Idle resources", especially the existence of 'idle' employments. New economist, or Keynes' economics, was beginning to replace or at least modify the classical schools - the profession was being swept.

It was in response to these changes that W.H. Hutt wrote his 1939 monograph, "The Theory of Idle Resources". While going about it in a subtle way, Hutt was clearly contesting Keynes's critique of the classical theory of employment. In keeping with the times, he did this by writing a comprehensive essay on the theory unemployment. In it, he sought to categorize the proximate causes of idleness, or unemployment. These are factors which if removed would eliminate the idleness of a particular resource. Hutt's results are mixed. While he successfully defended classical economics from the charge of lacking a theory of involuntary unemployment. Hutt failed to address a much more fundamental argument Keynes made in the sound chapter of his General Theory.

Eight factors, or, more accurately, proximate causes of idleness are recognized and explained: valueless resource, pseudo-idleness and preferred participating, enforced, withheld, strike and aggressive idleness. There is no distinction between labour and other economic goods, except that some forms of idleness - viz, lack of value - are inapplicable to the former. These factors explain both voluntary and involuntary unemployment, although ultimately Hutt's conception of the involuntary has more to do with restrictions rather than an issue inherent in the market economy.

Valueless resources are those "which at any time it would pay any individual to employ for any purpose", even where employment were costless. Hutt's definition is actually quite exclusive and rigorous. For instance, a machine that cannot produce to cover its depreciation is not valueless. Instead, when thinking of valueless resources it is natural resources that come to mind most easily. Closely paralleling Hutt, Carl Menger made a similar distinction when defining an "economic good". For Menger, an economic good enjoys four properties - demand, its applicability as a means toward an end, an understanding of its applicability by part of the owner, and ownership - and the failing of any one property excludes an item from the category. One might get a better idea of Hutt's valueless resource by interpreting his definition from Mengerian angle: resources, in the objective sense that are not economic goods, in the subjective sense.

Pseudo-idleness, in contrast, is a voluntarily restriction of output. In the case of a machine, it may arise, for instance, if present additional output comes at a loss, but the machine is maintained idle - and not scrapped - in expectation of future demand for its products. Alternatively, a wage worker is in pseudo - idleness if she refrains from selling her labour in expectation of being able to find a higher paying job in the future. One immediately sees, as implied by Hutt's term, that pseudo-idleness is not really idleness at all, but maintenance of availability in expectation of higher income in the future. Goods currently producing but still maintaining availability in case of superior employment opportunities, are still pseudo-idle,

although in this case it is preserving what Hutt calls a 'double function'. When concerning labour, one should be careful to not confuse pseudo-idleness with preferred idleness, Hutt's third category. This latter form of idleness is essentially when a worker choose leisure over employment. Hutt goes on a brief digression on the concept of irrational preferred idleness. If we think about pseudo-idleness in terms of opportunity cost, where the opportunity cost of current employment may be higher than that of preserving availability, it may seem irrational in retrospect if the opportunity costs were reversed and yet the same person still chose pseudo-idleness. When one thinks of irrational idleness, it is best to think of it in terms of unfulfilled expectations, where the person simply errs in judgment.

Similarly, in the spirit of Keynes, Hutt offers the example of labourer preferring a higher nominal wage over higher real wage. This leads him to a six-page criticism of the notion that the classical economics have overlooked the role irrationalism in spurring high unemployment, where he makes the case that workers who reject a lowering of their nominal wage (and are let go) are voluntarily unemployed - a case of preferred idleness or pseudo-idleness, to be exact.

Continuing with the exploration of Hutt's definitions, participating idleness refers to an aspect of monopolizing or cartelization resource held idle to restrict output so that a firm, or a group of firms, can charge a higher than competitive price are in participating idleness. In the realm of labour, an example is work sharing programs where members agree to restrict labour, disturbing a limited amount of hours amongst themselves. Unions are another example. Essentially, it refers to an agreement to constrain competition for the sake of charging monopoly, or uncompetitive prices. Two corollary categories are enforced idleness and withheld capacity. The former is similar to participating idleness, but where it may be more useful to think of it as involuntary, for example, legislation aiming to restrict work hours. Neither can resources under enforced idleness be used towards alternative ends "disguised unemployment". Withheld capacity, in contrast, covers voluntary restrictions of output in the case of participating idleness. Strike and aggressive

idleness are related, the former referring to a situation where resources are held idle out of demand for different conditions of exchange. A labour union strike is the most obvious example. Aggressive idleness, on the other hand, refers to maintenance of idle capacity for the purpose of suddenly ramping up production to crush potential competition.

CLASSICAL GROWTH THEORY

The classical economist like Adam Smith, David Ricardo and Mill who were the exponent of the classical growth theory assigned the rate of investment as the main factor for fostering growth. Growth is a function of the share of profits in the national income. There exist a positive relationship between higher rates of profit and higher rate of growth. Higher growth is achieved via profits effective or the rate of investment. According to the classical economists, the increased division of labour and specialization made possible by increase in growth rate of capital would result in increase in both profits and wages. However, it is argued that such increase may trigger off income and population growth that may lead to diminishing returns given that land is fixed. Classical models like Ricardian growth model emphasized the limits to growth imposed by ultimate scarcity of land. The major shortcoming of this theory of growth is the failure to provide for the possibility of the role of technical progress in the growth process[14].

ROSTOW'S STAGE OF GROWTH THEORY

Rostow has given five stages which any society that seek to grow and develop must necessarily pass through. These stages are:

- (i) The traditional society
- (ii) The pre-condition for take off or transitional stage
- (iii) The take-off stage itself
- (iv) The drive to maturity and
- (v) The age of high mass consumption.

The Traditional Society: Define by Rostow as “one whose structures developed within limited productions based on pre-Newtonian science and technology and as pre-Newtonian attitudes towards the physical world”, this stage is characterized by the following: lack of systematic understanding of the physical environment; age-old customs determine organization and production method; little or no application of science and technology, hence low productivity; over 75 percent of the population is engaged in agriculture; political power is monopolized by the landed aristocrats who had a large retinue of soldiers and servants who attend to the, hence there is little or no feeling need for change. Naturally, agriculture happened to be the main source of income of the state and the nobles, which was spent on the construction of temples and other monuments, on expensive funerals weeding and on the prosecution of wars.

The Pre-conditions for Take-off or Transitional Stage: This is the era in which the pre-conditions for sustained growth are created. Thus it is very important stage. This stage is characterized by changes in both economic and noneconomic spheres. For instance, during this stage, there are radical changes in three non-industrial sectors namely; transport, agriculture, and foreign trade. The development of transport and communication would enhance the marketing of raw materials in which other nations have economic interest and are often financed by foreign capital. People’s attitude begins to changes and a breed of entrepreneurs would appear who ready to take risk and invest etc. Technology is introduced; there is a rise a rise in capital accumulation and exploitation of new economic opportunities. This through the social elite.

Take-off Stage: This is a crucial stage of growth and a relative short one- lasting for decades. This stage is activated by the influence of a particular sharp stimulus which result in the increase in the rate of investment to such an extent that real output per capita rise due to radical changes in production characterized by the development of small group of sectors - the leading sectors which promise high rate of growth, hat is, one or more rapidly growing manufacturing industries must

emerge; the rate of net investment will rise to 10 percent and above from less than 3- 5 percent and a political, social and institutional framework that are favorable to sustained growth of the economy must emerge during this stage.

The Drive to Maturity Stage: This follows the take-off stage with between 10 and 20 percent of the national income steadily invested. During this period, modern technology would spread beyond the leading sectors that powered the take-off stage, to all parts of the economy: expansion of the range of production: high improvement in the skills of the labour force; rise in urbanization: development of high consumption: and the new labour force making itself felt in the political life of the society. According to him, it takes an economy 60 years to reach the maturity stage, after the take-off stage.

The Age of High Mass Consumption: During this stage the leading sectors shift to the production of durable consumer goods like automobile, TV set, videos etc. and prefer to live in the suburb. In addition, the economy through its political processes can express a willingness to allocate increase resources to social welfare and security. It can also decided to purse external power and influence. Rostow cites USA as a country that has reached this stage since the 1920s while Western European countries and Japan entered this stage later. According to him USSR before its destruction was about to enter this stage.

GROWTH AND UNEMPLOYMENT THEORY

OKUN'S LAW

Arthur Okun (1962)[15] was the first economist who studied the relationship between unemployment and economic growth. He postulated that 1% increase in the growth rate above the trend rate of growth would lead only to 0.3% in the reduction of unemployment. Reversing the causality of 1% increase in unemployment will mean roughly more than 3% loss in GDP growth. This relationship implies that the rate of GDP growth must be equal to its potential growth just to keep unemployment rate constant to reduce unemployment, therefore, the rate of GDP growth must be above the growth rate of potential output[16].

Generally, economic theory that can be used in explaining the relationship between growth and unemployment is Okun's law. Okun's law is an empirical observation on the relationship between unemployment rate and output. There would also be other factors that might affect coefficient e.g labour market, regulation, labour union etc for instance, in Japan, unemployment rates tend to vary less for given gross domestic product (GDP). Due to the strong social job protection, Okun coefficient can change over time because the relationship of unemployment to output growth depend on laws, technology, preferences, social customs and demographic.

Two methods were postulated in measuring Okun's coefficient; Okun's law can be expressed in this form: the initial form of the Okun's law can be written as the gap method:

$$u_t - u_t^* = b (y_t - y_t^*)$$

Where

y_t = The real output product (GDP)

y_t^* = Potential output

u_t = The natural level of unemployment

u_t^* = The potential unemployment

b = The Okun's coefficient

This is saying that the change in unemployment, (unemployment in year t minus unemployment in year $(t - 1)$) is equal to negative parameter, β which is less than one, which show the responsiveness of unemployment to output multiplied by the difference between output growth in year t , and normal growth rate of output. The parameter is negative because it is saying that when output growth goes above the normal growth rate, unemployment will fall, when output growth is below the normal growth rate unemployment will rise. That means when output growth is on the normal growth rate then unemployment will be stable.

The second method is use of Okun's first difference method: this method helps to indicate the sensitivity of output to unemployment changes.

Given:

$$\Delta u = a - b (\Delta Y/Y)$$

Then, $b \Delta u_t = a - \Delta Y/Y$, this focuses on the well known difference version which highlights that the change in unemployment rates is driven by growth rate in real GDP. This is based on the assumption that an increase in output will need more factor input leading to a lower unemployment rate. The difference version written as linear regression model is given by:

$$U_t - u_{t-1} = \alpha + \beta (y_t - y_{t-1}) + \Sigma t$$

Where u_t represent the unemployment rate in t , y_t symbolizes the level of real GDP and Σt is the error term which satisfy the usual properties. The parameter β is called the Okun's coefficient and is expected to have a negative sign.

Thus β estimate gives a negative coefficient between output and unemployment rates.

STATUS OF UNEMPLOYMENT IN NIGERIA

Nigeria, since the attainment of political independence in 1960 has undergone various fundamental structural changes. These domestic structural shifts have however not resulted in any significant and sustainable economic growth and development. Available data show that the Nigerian economy grew relatively in greater parts of the 1970s, with respect to the oil boom of the 1970s; the outrageous profits from the oil boom encouraged wasteful expenditures in the public sector dislocation of the employment factor and also distorted the revenue bases for policy planning.

According to the Central Bank of Nigeria (2003)[17] as reported by Akintoye (2003)[18], the national unemployment rate rose from 4.3 percent in 1970 to 6.4 percent in 1980. The high rate of unemployment observed in 1980 was attributed largely to depression in the Nigerian economy during the late 1970s. Specifically, the economic down turn led to the implementation of stabilization measures which included restriction on exports, which caused import dependency of most Nigerian

manufacturing enterprises, which in turn resulted in operation of many companies below their installed capacity.

This development led to the close down of many industries while the survived few were forced to retrench a large proportion of their workforce, Furthermore, the Nigerian Government also placed an embargo on employment. This among many other crises resulted in the introduction of the Structural Adjustment Programme (SAP) in 1986 and the current economic reforms.

The core objective of the economic structural reform is a total restructuring of the Nigerian economy in the face of a massive population explosion. However, these economic and financial structural reforms put in place did not yield results. Specifically, total disengagement from the Federal Civil Service rose from 2,724 in 1980 to 6,294 in 1984 (Odusola, 2001)[19] owing to this, the national unemployment rate fluctuated around 6.0 percent until 1987 when it rose to 7.0 percent. It is important to state here, that SAP adopted in 1986, had serious implications on employment in Nigeria, as unemployment rate declined from 7.0 percent in 1987, to as low as 1.9 percent in 1995, after which rose to 2.8 percent in 1996, and hovered between 2.8 and 13.1 percent between 1996 and 2000.

The analysis by educational status also suggests that people who have been majorly affected by unemployment are those without basic education. For instance, persons with and without primary school education accounted for 76.8/80.6 percent of the unemployment in 1974 and 1978 respectively.

In recent times however, the situation has been compounded by the increasing unemployment of professionals such as, Accountant, Economist, and Engineers and among others. According to a 1974 survey, reported by Aigbokhan (2000)[20] as reported by Akintoye (2003)[18] graduate unemployment accounted for less than 1 percent of the unemployed, in 1974, by 1984, the proportion rose to 4 percent for urban areas and 2.2 percent in the rural areas. It is impressive to note that, 2005, Nigerian's unemployment declined to 11.9 percent from 14.8 in 2003. This decline was attributed to the various government efforts aimed at addressing

the problem through poverty alleviation programmes. This decline also pointed to an increased number of people who got engaged in the informal sector activities. Unemployment increased sharply from 14.9% in March 2008 to 19.7% in March 2009. When disaggregated by sector, gave 19.2% for urban and 19.8% for the rural (NBS, 2010). Some states in the country recorded high composite unemployment rates i.e. above 19.7% which is the overall unemployment rate was Bayelsa (38.4%), Kastina (37.3%), Bauchi (37.2%), Akwa-Ibom (34.1%), Gombe (32.1%), Adamawa (29.4%), Borno (27.7%), Kano (27.6%), Yobe (27.3%), Taraba (26.8%), Jigawa (26.5%) FCT (21.5%) and Imo (20.8%) which Plateau state recorded the lowest figure of 7.1% in 2005, Niger state recorded lowest rate of 0.2% while Zamfara recorded the highest rate of 51.1% when the rate of unemployment in the country was 11.9%

CAUSES OF UNEMPLOYMENT IN NIGERIA

The fundamental factor that accounts for high rate of unemployment in Nigeria includes the following:

1. **Poor Economic Growth Rate:** The overall situation in the country in the part of eighties, nineties and even in this decade has been very hostile to economic growth and development. The high level of corruption, mismanagement of public funds, harsh economic policies and insecurity of the Nigerian environment coupled with long term despotic rule of the military and other factors have dampened the spirit of economic growth for long times. The situation in the nineties was such terrible that analyst have described the period as a lost decade to Nigeria in terms of economic growth and development.
2. **Adoption of Untimely Economic Police Measures:** Another crucial factor that has elicited unemployment problem overtime is demise of small scale and cottage industries which operated in both formal and informal sectors. Following the introduction of the Structural Adjustment Program (SAP) in September, 1986 that ushered in liberalization, deregulation and the devaluation program of the domestic currency, many of the teething domestic firms collapsed. This resulted in the loss of many jobs and thereby rendering many people unemployed.

Although, these policies were designed to jump start the growth of the economy, but given the structure of the Nigerian economy, some of the policy packages became out rightly inimical to system due to wrong timing.

3. **Wrong Impression About Technical and Vocational Studies:** The wrong impression of students about the place of technical and vocational education also accounts for the deteriorating state of unemployment in Nigeria. There is an enduring societal biased attitude against technical and vocational education Damachi (2001)[21]. A large number of job seekers lack practical skills that could enhance self-employment. That is why rather government and the non-vibrant private sector for job offer.
4. **Neglect of Agricultural Sector:** The agricultural sector has been the leading provider of employment in Nigeria especially in the sixties and in the seventies when the sectors provide employment for more than 60 percent of the Nigerian population. However, unfortunately, in the wake of oil discovery, the attention on this anchor of the economy was gradually drawn away to the oil sector where employment capacity is very low. The resulting effect is the large number of job seekers who have no place in the oil industry. Even with the expansion of the industry, unemployment has continued to grow at an alarming rate.

CONSEQUENCES OF UNEMPLOYMENT

According to Bello (2003), the consequences of unemployment in Nigeria are very severe and threatening to the citizenry and the economy as a whole. The unemployment episode has continued to pose so many challenges to the survival of the Nigerian nation. While some of these consequences bother directly on the unemployed, others like epidemics are limitless effects.

They include:

1. **Contributes to Low GDP:** It is an established economic reality that the size of the workforce directly impacts a country's GDP. Not only does the workforce produce manufactured goods or services or agricultural produce in direct proportion, but also brings in its wake increasing purchasing power, which in

turn, fuels economic growth. Thus, unemployment contributes to a reduction in the potential which exists in spurning a country's GDP.

2. **Contributed to Crime and Violence:** With growing youth unemployment, the divide between the rich and the poor grows, resulting in social tensions which could affect the entire fabric of a community, state and the entire country.
3. **Unproductive Labour Force:** The most direct impact on the economy of an unproductive labour force is lost output in terms of goods and services. With no income tax to collect and the loss of receipts from indirect taxes such as the value added tax, the government takes in less tax revenue, [22].
4. **Psychological Effect:** Young men and women, who have put in a decade or two in schools and colleges, have dreams and aspirations. These are dreams of securing satisfying jobs following their years of struggle, meeting basic necessities of life (food, clothing, shelter and healthcare), graduating to a life of comfort and dignity and, eventually, enjoying the luxuries of life. The trauma of seeing their dreams shattered week after week, month after months, can and does lead to deep psychological scares that are very difficult to face at such a young age. These can impact any individual's self esteem and can lead to clinical depression.
5. **Political Instability:** When unemployment grows in community, dissatisfaction with the incumbent governments follows. This in turn, leads to frequent charges in governments or formation of unsteady coalitions. Neither is healthy for long term stable economic policies and this situation could lead to a vicious circle of political changes. As President Franklin D. Roosevelt had stated, "Not only our future economic soundness but the very soundness of our democratic institutions depends on the determination of our government to give employment to idle men". Youth unemployment (as also underemployment) therefore means to me, "the saddest sight that fortunes inequality exhibits under the sun", as stated at the beginning of this.

EFFORTS MADE AT COMBATING UNEMPLOYMENT IN NIGERIA

1. **National Directorate of Employment (NDE):** One of the steps taken by the Nigerian government to reduce the problem of unemployment in Nigeria was the establishment of the National Directorate of Employment (NDE), which was established in November 22, 1986. The objective of NDE was to promptly and effectively fight unemployment by designing and implementing innovative programmes, which are directed towards to provision of training opportunities through the guidance and management support services to graduate farmers and small scale entrepreneurs. The objectives of NDE spanned across the following programmes:

- ❖ Youth employment and vocational skills development programme.
- ❖ Special public works.
- ❖ Small scale industries and graduate employment programme.
- ❖ Agricultural development programme.

The aim of the agricultural programme is to generate employment for graduates, non-graduates and school leavers in the Agricultural sector, with emphasis on self employment in agricultural production and marketing. The programme is monitored by a team of Agricultural professionals in the Agricultural department of the directorate. However, factors which include inadequate funding and late release of funds from the federal account among others have impaired the effectiveness of the NDE agricultural programmes Chinedum (2006)[23] as reported by Akintoye (2003)[18]. As stated earlier, this study seeks to recommend the informal sector as a medium of reducing unemployment in Nigeria, while outlining some of the pointers needed in making the objectives achievable.

2. **National Economic Employment and Development Strategy (NEEDS):** The National Economic Employment Development Strategy (NEEDS) was introduced in March 2004, in order to confront the various macro economics imbalances, social challenges and structural problems in the Nigerian Economy. One of the principal goals is to build a modern Nigeria that maximizes the potential of every citizen so as to become the largest and strongest Africa economy, and a force to be

reckoned with in the world. To achieve this goal, NEEDS, as a development strategy anchored on the private sector is to engineer wealth creation, employment generation and poverty reduction, however, for NEEDS to achieve its objectives there's need to design many integrated programmes that can generate employment for women and youths to enhance growth and development Adebayo and Ogunrinola (2006)[24]. As it is a medium-termed reform based development strategy, and action plan for the period 2003 - 2007, the impacts of NEEDS is yet to be felt, in combating unemployment problem and this further point to the need to seek help in the informal sector in order to drastically reduce unemployment.

EMPIRICAL LITERATURE

A number of studies have empirically investigated the relationship between output and unemployment.

Lee (2000)[25] estimated the Okun's equation for all organization for economic cooperation and development countries and stressed that the relationship is not stable overtime and is different across countries, but concluded that the impact of growth on employment is still valid.

Killer and Nabil (2002)[26] suggest that economic growth in the Middle East and Asian (MENA) region has been insufficient compared to the region's labour force and that high growth does not guarantee good labour market outcomes.

On the other hand, the World Bank (2007)[27] suggests that high unemployment is viewed as a reflection of the problems of structural and frictional unemployment in MENA countries. It seems that the World Bank report suggested that Okun's coefficient is low or insignificant among MENA countries.

Freeman (2001)[28] uses new development in trend cycle decomposition to test Okun's law for a panel of ten industrial countries, that Okun's original estimate for 11.5 of three points for each one percent reduction in the unemployment rate now averages at just under two points of real GDP growth for the sample countries. Pooled estimates for Europe are smaller than estimates for the rest of the sample.

Freemen concluded that the law is still capable of providing estimates of effects of unemployment on GDP.

Alanan, (2003)[29] opines that unemployment is potentially dangerous as it sends disturbing signal to all segments of the Nigerian society. The rate of youth unemployment in Nigeria is high, even at period of economic normalcy i.e. the oil boom of 1970s (6.2%); 1980s (9.8%) and 1990s (11.5%).

Arewa and Nwakanma (2012)[30] conduct an empirical evaluation of the relationship between output and unemployment using the first difference and output-gap models of Okun's law. The study finds no evidence to support the validity of Okun's law in Nigeria.

Villaverde and Maza (2008) analysed Okun's law for Spanish regions using data for the period 1980 - 2004. The results verified the existence of Okun's law for most of the regions and for the economy as a whole. However, the magnitude of Okun's coefficient differed for various regions due to regional productivity differences.

Beaton (2010)[31] investigates the stability and reliability of Okun's law for Canada and United state using a movement in output growth increasing recently in both countries.

Kreishan (2011)[32] investigates the relationship between unemployment and economic growth in Jordan through the implementation of Okun's law, using annual data covering the period 1970 - 2008. The empirical results reveal that Okun's law cannot be confirmed for Jordan. Thus, it can be suggested that the lack of economic growth does not explain the unemployment problem in Jordan.

Arshad (2010)[33] used the gap equation and technique of Hedrick - Prescott Filter (HP) for short run analysis to investigate the presence of Okun's (1962)[15] relationship in the Swedish economy, whereas co-integration model and error corrections model is used to test the relationship between unemployment and GDP in the short and long run. The study show that the Okun's law exists in the Swedish economy from the period 1993 quarter 1 to 2009 quarter 2, and found the Okun's

coefficient is - 2.22 percent and also proves that there exist a long run and short run relationship between unemployment and GDP.

Javeid (2005)[34], used annual time series data during the period 1981 - 2005 of Pakistan to find the association between unemployment rate and GDP growth which is presented empirically by Arthur Okun's in early 1960s, he applied different version of Okun's law which is more appropriate to access results directly from empirical data, and used Engle - Granger co integration technique and error correction mechanism (ECM) to find the short term behaviour of GDP growth to its long run value. The result show negative relationship between unemployment rate and GDP growth and both variables have long run relation with each other. Moreover, GDP growth will adjust more quickly towards equilibrium in the long run.

Geidenhuys and Marinkov (2007)[35] tried to give answer to the question of unemployment responds to changes in output in South Africa for this reason, they estimated the relationship between economic activity and unemployment rate. The results indicated the presence of an Okun's law relationship in South Africa over the period 1970 - 2005 with more evidence in favour of asymmetries during recessions.

Knotek (2007)[36] also estimated Okun's law using its difference, gap and dynamic versions in which he calculated effects on unemployment rate by current output, past output level, past unemployment rate and analysed that showdown in economy coincide with increase in unemployment rate is not always the case in both short and long run.

RESEARCH METHODOLOGY

RESEARCH DESIGN AND METHODOLOGY

The research design to be employed in this work is the ex-post facto or multiple regression method, based on ordinary least square. The choice for the ex-post facto stems from its major objective which is to explore the relationship between unemployment and output growth in Nigeria. The Ex-post facto methodology is considered most appropriate for a research of this sort for the following reasons: This research design tries to dig out the cause and effect

relationships where causes already exists and cannot be manipulated. The ex-post facto or causal comparative research design makes use of what already exists and looks backwards to explain why it is so and. It provides a means to measure the effects of the independent variables on the dependent variable.

Multiple regressions involving the ordinary least square method of estimation shall be employed in this research.

The choice of this method is based on the “BLUE” property that is Best Linear Unbiased Estimation. This is because it helps to ascertain quantitatively the impact of certain factors on a given phenomenon under study. According to Koustsyianis (1977)[37] states that in attempting to study any relationship between variables, it is important to express the relationship in mathematical form.

MODEL SPECIFICATION

The model specification will be

$$GDP = F (UNEMP, INF) \tag{1}$$

Where;

GDP is the proxy representing output growth in Nigeria

UNEMP is the proxy for Unemployment rate

INF is the Inflation rate.

The output growth is the dependent variables while unemployment and inflation rate are the independent variables. To show the impact of unemployment and output growth in Nigeria of will be,

$$GDP = \beta_0 + \beta_1 UNEMP + \beta_2 INF + U_t \tag{2}$$

Where U_t are those variables that can affect the GDP which are not stated in the model specification.

ESTIMATION PROCEDURE

Prior to running a regression to obtain the ordinary least square (OLS) estimates and the non linear component of the system using the state space model (SSM), the entire series shall be subjected to some econometric and deterministic examinations.

UNIT ROOT TEST

The unit root test is utilized to test for the stationary of time series data. Since most of the macroeconomic time series are non-stationary (Nelson and Plosser, 1982)[38] and are prone to spurious regression, the first step in any econometric or time series analysis is always to test for stationary. The widely used augmented dickey fuller (ADF) test statistic shall be used to test for stationarity. It shall be compared with the critical values at 5% level of significance. If the ADF test statistic is at any level, greater than the critical values with consideration on their absolute values, the data at the tested order is said to be stationary. Augmented Dickey-fuller test relies on rejecting a null hypothesis of stationary. The tests are conducted with and without a deterministic trend (t) for each of the series. For the purpose of this research, an augmented dickey-fuller (ADF) test shall be conducted by carrying out a unit root test based on the following structure: s

$$\Delta x_t = k + a_t + \theta x_{t-1} + \sum_{i=1}^n \Phi_i \Delta x_{t-i} + e_t \quad (3)$$

Where X is the variable under consideration, Δ is the first difference operator, t captures time trend, a_t is a random error, and n is the maximum lag length. The optimal lag length is identified so as to ensure that the error term is white noise. K, a, θ and Φ are the parameters to be estimated. If we cannot reject the null hypothesis that $\theta=0$, then we conclude that the series under consideration has a unit root and is therefore non-stationary. On the assumption of unit root for all the variables employed, we would proceed to test for co integration.

ARDL BOUNDS TESTS FOR COINTEGRATION

Granger and Engel (1969)[39] pointed out that a linear combination of two or more non-stationary variables may be stationary. If such a stationary combination exists, then the non-stationary time series are said to be co-integrated. It is therefore used to test for the long run relationship between the variables. Cointegration means that despite being individually non-stationary, a linear combination of the two or more time series can be stationary.

In order to empirically analyze the long-run relationships and short run dynamic interactions among the variables of interest (gross domestic product (GDP), Unemployment rate (UNEMP) and inflation rate (INF)) this study employs the Auto Regressive Distributed Lag (ARDL)/ Bounds testing methodology developed by Johansen and Juselius (1990) and Bello (2003)[40],[41] to test for the short run relationship among the variables and the long run relationship among those integrated of same order. The major reason for the use of ARDL/Bound test is informed by the numerous advantages which it possesses among which are: First of all, it can be used irrespective of the order of integration of the variables in question. In other words, it can be used when the variables are fractionally integrated i.e. I (1) and I (2). Secondly, the procedure is fairly simple as it involves just a single equation set up which makes implementation and interpretation very simple. Finally, as various variables enter the model, they can be assigned different lag lengths. However, the ARDL procedure usually make sure that any variable that is integrated of order two (I (2)) does not enter the model as such will invalidate the methodology. The procedure involves formulation of an unrestricted error correction model after which the appropriate lag structure will be determined. Having done this, the model is tested against serial dependency of error terms and stability using the appropriate tests before performing the bound testing to see if there is evidence long run relationship between the variables. If there is evidence of long run relationship, a long run level model will be estimated alongside restricted error correction which measures the short run dynamic effects. The general form of the ARDL is given below:

$$y_t = \beta_0 + \beta_1 y_{t-1} + \dots + \beta_k y_{t-p} + \alpha_0 x_t + \alpha_1 x_{t-1} + \alpha_2 x_{t-2} + \dots + \alpha_q x_{t-q} + \varepsilon_t, \quad (4).$$

SOURCES OF DATA

Data is obtained from secondary sources. All the variables to be employed in the empirical estimation and analysis shall be sourced from various issues of the Central Bank of Nigeria.

PRESENTATION AND ANALYSIS OF RESULTS

The attempt to study the impact of unemployment and output growth in Nigeria led the researcher to subject the data collected to Unit Root, Co integration, and vector Error Correction tests. The variables considered in this research work are: Gross domestic products, which represent Nigeria (GDP) (dependent variable) and the independent variables include: unemployment rate (UNEMP) and inflation rate (INF). The empirical results are presented below:

UNIT ROOT TEST

In other to test for the presence or absence of unit root in the data used for the empirical analysis, Augmented Dickey-Fuller (ADF) test was employed and the test result is as presented below:

Table1: Augmented Dickey Fuller Unit Root Test at level (Trend and intercept)

Variables	ADF @ Level	1 st difference	Critical value (5%)	Order of integration	Remarks
D(GDP)	- 5.249923	-	- 3.548490	I(0)	Stationary
D(UNEMP)	- 1.992695	-5.452278	- 3.552973	I(1)	Stationary
D(INF)	- 3.049248	-5.577550	- 3.552973	I(1)	Stationary

SOURCE: Researcher own compilation

From the result above, only Gross domestic products, which represent Nigeria (GDP) exhibited stationarity at level, while unemployment rate (UNEMP) and Inflation rate (INF) exhibited stationarity at first difference. The stationarity is achieved by comparing their respective ADF test statistics with the 5% critical values; it is observed that their respective test statistics are greater than the critical values in absolute terms. Thus, the series are stationary.

CO-INTEGRATION RESULT

The outcome of the unit root results instigated the researcher to test for co-integration. Cointegration is used to test for long run relationship between the

variables considered. In order to empirically analyze the long-run relationships and short run dynamic interactions among the variables of interest, we apply the autoregressive distributed lag (ARDL) The ARDL cointegration approach was developed by Johansen and Juselius (1990) and Bello (2003)[40],[41]. The first step in the ARDL bounds approach is to estimate the equations by ordinary least squares (OLS). Below is the result of ARDL model.

Table 2: ARDL RESULT

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
GDP(-1)	-0.018104	0.187090	-0.096768	0.9236
UNEMP	-0.829061	0.613682	-1.350963	0.1868
INF	0.145010	0.259938	0.557864	0.5811
C	124.3005	25.16690	4.939048	0.0000

R² = 0.108767 D-W = 2.043081 F-Statistic = 1.220407

Sources: Researchers' compilation from E-view (version 7.0)

Diagnostic Tests

The validity of the regression for the underlying ARDL equation was tested against serial correlation using Breusch-Godfrey test and the result is presented below.

4.3 Breusch-Godfrey serial correlation LM test

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	0.372771	Prob. F(2,28)	0.6922
Obs*R-squared	0.881821	Prob. Chi-Square(2)	0.6435

Sources: Researchers' compilation from E-view (version 7.0)

The Observed R-squared is 0.88 while its P-value is 0.64. Similarly, the p-value of the F-statistics is 0.69. Since the P-value is greater than the chosen level of

significance (0.05), we therefore cannot reject the null hypothesis. This implies that there is absence of autocorrelation in the model.

The estimation of the equation test for the existence of a long-run relationship among the variables was conducted by employing an F-test for the joint significance of the coefficients of the lagged levels of the variables, leading to the Bound testing the result of which is presented below:

Table 3: Bounds Test

Test Statistic	Value	k		
F-statistic	10.3829 4	2		
Critical Value Bounds				
Significance	I0 Bound	I1 Bound		
10%	3.17	4.14		
5%	3.79	4.85		
2.5%	4.41	5.52		
1%	5.15	6.36		

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	123.8564	23.55306	5.25861 2	0.0000
UNEMP(-1)	- 0.968750	0.606837	- 1.59639 3	0.1209
INF	- 0.148837	0.250978	0.59302 6	0.5576
GDP(-1)	1.007211	0.181240	- 5.55732 2	0.0000

$R^2 = 0.509394$ $F\text{-Statistic} = 10.38294$ $D\text{-W} = 2.060564$

From the Bound test, the F-statistic value is 10.38294. We compare the F-statistic value with the lower and upper bound values (3.79 and 4.85) at 5 percent level of significance. The first level is calculated on the basis that the ARDL model is integrated of order zero, while the second is calculated on the basis that the variables are integrated of order one. Using the Pesaran Critical value at 5% level

with restricted intercept and no trend, the lower boundary is 3.79 while the upper bound is 4.85. The null hypothesis of no cointegration is rejected since the value of the F-statics statistic (10.38) is greater than the upper critical bounds value.

From these results, it is clear that there is an evidence of long run relationship amongst the variables where GDP is the dependent variable because its F-statistic value is greater than the upper-bound critical value at the 5% level. This implies that the null hypothesis of no cointegration among the variables is rejected.

From the result of the ARDL Bound test presented above, the coefficient of the constant term is 123.8564 implying that when other variables are kept constant gross domestic products (GDP) increased by 123.8564 units. The coefficient of UNEMP(-1) is -0.968750 implying that a unit change in unemployment rate lagged by one period brought about 0.968750 units decrease in GDP. While, the coefficient of INF is 0.148837 meaning that a percentage increase in inflation rate brought about 0.148837 percent increase in GDP.

The above result indicates that the R^2 is 0.509394 indicating that the explanatory variables explain about 50.93% of the total variations in GDP during the period under consideration while other variables not captured in the model accounted for about the remaining 49.07 percent.

TEST OF HYPOTHESES

HYPOTHESES ONE

H_0 : There is no significant long run equilibrium relationship between unemployment and output growth in Nigeria.

H_1 : There is significant long run equilibrium relationship between unemployment and output growth in Nigeria.

To test the hypothesis stated above, we consider the result from the bound test presented in table 3. From these results, it is clear that there is an evidence of long run relationship amongst the variables when GDP is the dependent variable because its F-statistic value of 10.38 is greater than the upper-bound critical value at

the 5% level of 4.85. The null hypothesis of no cointegration among the variables is therefore rejected.

HYPOTHESES TWO

H_0 : Unemployment and output growth do not impact in Nigeria.

H_1 : Unemployment and output growth do impact in Nigeria.

From the relationship existing between unemployment and output growth in Nigeria as was revealed by the ARDL bound test analysis, we observed that there was a negative relationship between unemployment rate, inflation rate and gross domestic products and as such we reject the null hypothesis and conclude that unemployment and output growth do impact in Nigeria.

IMPLICATION OF THE STUDY

The ARDL result indicated that there was a negative relationship between unemployment rate and gross domestic products and a positive relationship between inflation rate and gross domestic products. This does conform to a priori expectation. A negative relationship was expected to exist between unemployment rate and gross domestic products. The result also shows that unemployment does not significantly affect economic growth, but a good performance of an economy in terms of per capita growth may therefore be attributed to the rate of inflation in the country. A major policy implication of this result is that concerted effort should be made by policy makers to increase the level of output in Nigeria by improving productivity/supply in order to reduce unemployment and the prices of goods and services (inflation) so as to boost the growth of the economy. Another policy implication of this study is that government should embark on labour intensive technique of production as against capital intensive and also close the border to some extent which is the likely measure to reduce unemployment and Inflation and increase domestic output level (GDP).

SUMMARY, CONCLUSION AND RECOMMENDATION

SUMMARY OF FINDINGS

The study investigated empirically the relationship between unemployment and output growth in Nigeria for the period between 1980 and 2014 employing various techniques of econometric analysis. In the course of the study, the main objective was to investigate the impact of unemployment and output growth related variables on Nigeria for the period under review. The variables used for the empirical analysis in this study are; gross domestic products (GDP), unemployment rate (UNEMP) and inflation rate (INF) On the application of advanced econometric techniques (Augmented Dickey Fuller, and Autoregressive Distributed Lag Tests), the following information were extracted;

- Only one of the variables (GDP) became stationary at level by ADF
- The remaining variables (UNEMP and INF) became stationary at first difference; this means they all have unit roots which necessitates the test for long run relationship.
- The Auto regressive distributed lag result shows that the variables are cointegrated. Hence, there is presence of long-run equilibrium relationship between the variables used for the estimation.
- To ascertain the impact of unemployment and output growth in Nigeria, the study made use of Autoregressive Distributed Lag. From the result of the ARDL presented above, there exist a negative relationship between unemployment rate and gross domestic products. The negative relationship between GDP and UNEMP does conform to a priori expectations.

Finally, the regression result indicated that the coefficient of determination (R^2) was 0.509394. This indicates that the explanatory variables explain about 50.93% of the total variations in GDP during the period under consideration while other variables not captured in the model accounted for about the remaining 49.07 percent.

CONCLUSION

From the research carried out on the impact of unemployment and output growth in Nigeria from 1980 - 2014 using the Autoregressive Distributed Lag, data shows that unemployment is negatively related to the economic growth. The economic analysis of the findings shows that the variables under consideration confirm to apriority expectation of the economics theory. However the result of the findings is not consistent with theoretical expectations of this research work in determining economic growth rates in Nigeria. In conclusion therefore, fight against unemployment and inflation in Nigeria is not going to be easy or a short run affair, this was because what brought about high unemployment rates also brought about reduction in the growth rates of output in the country and what about high inflation rates brought about improvement in the growth rates of output in Nigeria. This research work concluded by saying that combating the challenges of the rising inflation and unemployment level in Nigeria is not a small task for policy makers and economic managers in Nigeria. The consequences of a growing inflation and unemployment phenomenon are so damning that Nigeria cannot afford them. Such implications are glaring in the economy of Nigeria where many negative developments were traceable to the non-availability of jobs for the teaming population of energetic youths coupled with a frequent rising in general price level. Therefore, the need to aptly address this ugly development becomes paramount.

RECOMMENDATION

Based on the findings made in the course of this study the following recommendations are made:

- i. Based on the coefficient of unemployment rate (-0.968750) reduction in unemployment rate will increase economic growth rate. Precisely, 1 percent reduction in unemployment rates will increase economic growth by 0.968750 percent. This research work therefore, recommended that government and its relevant authorities should provide conducive investment environment by removing the structural rigidities that exist in the economy to create jobs. Government should

endeavour to provide stable supply of power, good roads for transportation of goods and people, functional legal system, security of lives and property, infrastructural facilities etc. All these would boost employment by making goods and services readily available to meet the ever increasing demand in order to prevent inflation and subsequently lead to industrial expansion and improvement in growth rates of the economy which would provide employment opportunities for the people.

ii. Based on the coefficient of inflation rate (-0.148837) increase in inflation rate will also decrease economic growth rate. Precisely, 1 percent increase in inflation rates will decrease economic growth by 0.148837 percent. This research work therefore, recommended the need to formulate policies to ensure constant relative price stability which may likely improve the welfare of Nigerians.

iii. Based on these findings, this study recommended that there is still the need for government to take urgent steps against the rising unemployment rate, because unemployment is a major impediment to social progress and results in waste of trained manpower.

iv. Government should embark on provision of social amenities in the rural areas so as to reduce the urban rural drift which have consequences of increasing the rate of unemployment.

v. There is need for government to restructure the educational system in a way it will lead to the youths with capability of self-reliance and self-employment.

vi. Government should formulate monitoring policy to check the channel of increase government spending to find out why the huge spending has not transmitted into a viable economic growth.

REFERENCES

1. World Bank, 1994 World Development indicators, The World Bank, Washington D.C
2. Akinboyo, G.B (1987). Job creation as a productivity measure for employment problems in developing countries: The Nigeria and Holland Experience increasing productivity in Nigeria, National productivity centre, Lagos.
3. Raheem, M.I. (1993). Nigeria for Africa: A case for labour Export in Oyejide, T.A and M.I Obadan, applied Economics and Economic policy. In-honour of Emmanuel C. Edozien, Ibadan university press, Ibadan.
4. Onah, F.O., (2001). Urban unemployment situation in Nigeria in Ezeani, E.O and Elekwa, N.N (eds.) issues in urbanization and urban Administration in Nigeria Nsukka. Jamo Enterprises, Enugu Nigeria.
5. Balogun, E.D. (2003) Issues of Employment and Wages in Nigeria, Contemporary Economics policy issues, CBN (Edsi).
6. National Bureau of statistics. 2013. statistical factsheet.
7. Central Bank of Nigeria (2004). Annual report and statement of Accounts, December, Abuja.
8. Adebayo, A. (1999). Youth Unemployment and National Directorate of employment, self employment programmes. Nigeria journal of Economics and social studies 41 (1), Africa Employment Report, 2010. An international labour Organization Publication, Geneva
9. Todaro, M. (1992). Economics for a Developing world. 2nd . Ed. England: Longman U.K limit.
10. Oni, B., (1994). SAP and the informal sector in Nigeria. A case of increasing Employment.
11. Lambo, T. (1987). Nigeria Economy. A Text book of Applied Economics, Lidato press.
12. Onwioduokit, E.A. (1998). productivity in Nigeria in proceedings of world productivity congress, Helsinkin, Finland.
13. Umo, J.U. (1996). Introductory overview” in J.U Umo (ed) Towards full Employment strategy in Nigeria National Manpower Board; Lagos.
14. Balami, D.H. (2006). Macro economics theory and practice salawe prints, off leventies, Wulan Maiduguri.
15. Okun, A. M., (1962). Potential GNP. Its Measurement and Significance, American Stastistical Association, proceedings section, pp-98-104.
16. Tatom, J. A. (1978). Economic Growth and unemployment: A Reappraisal of the conventional view, Federal Reserve Bank of St. louis .pp, 16-23.
17. Central Bank of Nigeria (2003). Statisfactical bullentin vol: 16, December.

18. Akintoye, I.R. (2003). Reducing unemployment through the informal sector; A case study of Nigeria. *European Journal of Economics, Finance and Administrative sciences* ISSN 1450-2275 issue 11.
19. Odusola, A.F., (2001). Nigerian's unemployment problem in the 80's and 90's: Implication for policy directions in the 21st century. NCEMA Policy Seminal scribes Ibadan, Nigeria.
20. Aigbokhan, K. (2000). Growth and unemployment, *Review of Economics Studies* 6.
21. Damachi, N.A. (2001). Evaluation of past policy measures for solving unemployment problems, in unemployment in Nigeria: CBN Bllion vol 25, No4, Oct/Dec.
22. Bellemare, D., and poulin- simon, L. (1994). What is the read cost of unemployment in Canada? Canadian centre for policy alternatives, Ottawa.
23. Chinedum (2006) morden Labour Econmics and policy Analysis.
24. Adebayo, A., and Ogunrinola, (2006). Contemporary Dimensions of unemployment problem in Nigeria: A Special challenge under the National Economics Empowerment and Development Strategy. NES 2006, Ibadan, Nigeria
25. Lee, J. (2000). The Robustness of okun's law Evidence from OECD countries. *Journal of macro-economics* vol. 22, 331-356.
26. Keller, J. and Nabil M.K. (2002). The macro economics of labour market outcomes in MENA over the 1990's; How Growth has failed to keep pace ninth a Burgeoning labour market, working study. The Egyptian centre for Economics studies, [http://sitereseness-old bank.org/INTMENA/Resources/Labmark outcomes, pdf](http://sitereseness-old.bank.org/INTMENA/Resources/Labmark%20outcomes.pdf).
27. World Bank (2007). MENA Economic Development and prospects, job creation in an Era of High Growth, Washington 11. <http://siteresources.WorldBank.org/INTMENA/Resources/EDP07-SUMMARY-APRIL12.PDF>.
28. Freeman, D.G. (2001). Panne Tests of Okun's law for ten industrial countries 1958-98, west or Economic Association international, 3914.
29. Alanana, O. (2003). Youth unemployment in Nigeria, some implications for the third Millenium *Global journal of social sciences* 2 (1): 21-26 .
30. Arewa A., and Nwakama, P. (2012). potential real GDP and Growth process of Nigerian economy, An Empirical Re-evaluation of Okun's law; *European scientific journal*, 8 (al: 25- 33).
31. Beaton, K. (2010). Time variation in okun's law: A Canada and U.S companion. Bank of Canada working paper NO. 2010-7, Bank of Canada, Retrieved [WWW.bankof Canada, /wp-content/uploads/2010/05/wp10-7.pdf](http://WWW.bankofCanada.com/wp-content/uploads/2010/05/wp10-7.pdf).

32. Kreishan, F. (2011). Economics Growth and unemployment: An Empirical Anlysis, *Journal of social sciences*, 7,2,228-231.
33. Arshad, Z. (2010). the validity of okun's law in Swedish, Master Thesis, stockholm university, Sweden.
34. Javeid, U. (2005) Okun's law: Empirical evidence from Pakistan 1981-2005, master thesis, sodertorn University, School of Social Sciences, Sweden.
35. Gedenhuys, J., and Marinkov, M. (2007). Robust Estimates of Okun's coefficient for South Africa, *working paper*.
36. Kontek, E.S. (2007). How useful is Okun's law, Federal Reserve Bank of Kansas city, Retrieved <http://www.ke.frb.org/publicaf/econrev/pof/4907> Rotek. Pdf.
37. Koutsoyiannis, A. (1977). *Theory of Econometrics, Second Edition*. New York; Palgrave Publishers Ltd, 681P.
38. Nelson, B., & Plosser, M. (1982). Government deficits and the inflationary process in developing countries. *International monetary fund (IMF) staff papers*, 25(3), 383-416.
39. Granger, C.W. (1969). Investigating causal relationships, by Econometric Models and Cross Spectrum Methods. *Econometrica* 37, 424-438.
40. Johansen, S., & Juselius, K. (1990). The maximum likelihood estimation and inference on cointegration with application to demand for money. *Oxford Bulletin of economics and statistics*, 52(2), 169-210.
41. Bello, T, (2003). Attacking unemployment hind us in the fragile economics of the sub-saharan Africa: the experience of Nigeria, A paper persecuted at the - Economics for the future- conference; on the occasion of the celebration of 100 years of Cambridge Economics; Cambridge united kingdom September.

**42. APPENDIX I
DATE FOR REGRESSION**

YEARS	GDP (GROWTH RATE)	UNEMP (%)	INF (%)
1980	102.221	4.9	10.0
1981	103.335	5.2	20.90
1982	107.088	4.3	7.70
1983	108.962	6.4	23.20
1984	105.641	6.2	39.60
1985	115.750	6.1	5.50
1986	100.013	5.3	5.41
1987	143.478	7.0	10.20
1988	136.333	5.1	38.30
1989	145.184	4.5	40.90
1990	123.645	3.5	7.50
1991	115.450	3.1	13.00
1992	160.415	3.5	44.50
1993	124.486	3.4	57.20
1994	128.451	3.2	57.00
1995	107.712	1.9	72.80
1996	138.693	2.8	29.30
1997	103.892	3.4	8.50
1998	95.231	3.5	10.00
1999	117.290	17.5	6.60
2000	143.477	18.1	6.90
2001	102.705	13.7	18.90
2002	113.061	12.2	12.90
2003	127.166	14.8	14.00
2004	115.106	11.8	10.10
2005	128.041	11.9	11.50
2006	127.060	12.3	8.60
2007	112.273	12.7	6.60
2008	117.616	14.7	15.10
2009	102.049	19.7	12.10
2010	137.067	21.1	11.80
2011	110.078	23.9	10.30
2012	108.378	24.9	12.00
2013	19.786	25.2	12.10
2014	110.997	25.05	14.21

**SOURCE: i) Central Bank Statistical Bulletin, 2014.
ii) www.indexmundi.com**

REGRESSION RESULTS
UNIT ROOT TESTS
GDP @ LEVEL

Null Hypothesis: GDP has a unit root				
Exogenous: Constant, Linear Trend				
Lag Length: 0 (Automatic - based on SIC, maxlag=0)				
			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			- 5.249923	0.0008
Test critical values:	1% level		- 4.252879	
	5% level		- 3.548490	
	10% level		- 3.207094	
*MacKinnon (1996) one-sided p-values.				
Augmented Dickey-Fuller Test Equation				
Dependent Variable: D(GDP)				
Method: Least Squares				
Date: 11/15/16 Time: 13:00				
Sample (adjusted): 1981 2014				
Included observations: 34 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP(-1)	- 0.926577	0.176493	- 5.249923	0.0000
C	116.7761	23.30150	5.011526	0.0000
@TREND("1980")	- 0.511409	0.409562	- 1.248674	0.2211
R-squared	0.471201	Mean dependent var		0.258118
Adjusted R-squared	0.437085	S.D. dependent var		30.65021
S.E. of regression	22.99613	Akaike info criterion		9.192627
Sum squared resid	16393.49	Schwarz criterion		9.327305
Log likelihood	- 153.2747	Hannan-Quinn criter.		9.238556
F-statistic	13.81170	Durbin-Watson stat		2.040666
Prob(F-statistic)	0.00005			

	1			

UNEMP @ LEVEL

Null Hypothesis: UNEMP has a unit root				
Exogenous: Constant, Linear Trend				
Lag Length: 0 (Automatic - based on SIC, maxlag=0)				
			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-	0.5843
			1.992695	
Test critical values:	1% level		-	
			4.252879	
	5% level		-	
			3.548490	
	10% level		-	
			3.207094	
*MacKinnon (1996) one-sided p-values.				
Augmented Dickey-Fuller Test Equation				
Dependent Variable: D(UNEMP)				
Method: Least Squares				
Date: 11/15/16 Time: 13:01				
Sample (adjusted): 1981 2014				
Included observations: 34 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
UNEMP(-1)	-	0.112665	-	0.0552
	0.224507		1.992695	
C	-	0.976807	-	0.7539
	0.308925		0.316260	
@TREND("1980")	0.178978	0.081276	2.202106	0.0352
R-squared	0.138788	Mean dependent var		0.592647
Adjusted R-squared	0.083226	S.D. dependent var		2.908351
S.E. of regression	2.784697	Akaike info criterion		4.970253
Sum squared resid	240.3907	Schwarz criterion		5.104932
Log likelihood	-	Hannan-Quinn criter.		5.016182
F-statistic	2.497887	Durbin-Watson stat		1.799338
Prob(F-statistic)	0.09867			

	5			

UNEMP @ 1ST DIFFERENCE

Null Hypothesis: D(UNEMP) has a unit root				
Exogenous: Constant, Linear Trend				
Lag Length: 0 (Automatic - based on SIC, maxlag=0)				
			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-	0.0005
			5.452278	
Test critical values:	1% level		-	
			4.262735	
	5% level		-	
			3.552973	
	10% level		-	
			3.209642	
*MacKinnon (1996) one-sided p-values.				
Augmented Dickey-Fuller Test Equation				
Dependent Variable: D(UNEMP,2)				
Method: Least Squares				
Date: 11/15/16 Time: 13:02				
Sample (adjusted): 1982 2014				
Included observations: 33 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(UNEMP(-1))	-0.999926	0.183396	-5.452278	0.0000
C	-0.338760	1.121440	-0.302076	0.7647
@TREND("1980")	0.052235	0.055959	0.933450	0.3580
R-squared	0.497814	Mean dependent var		-0.013636
Adjusted R-squared	0.464335	S.D. dependent var		4.105623
S.E. of regression	3.004871	Akaike info criterion		5.124854
Sum squared resid	270.8774	Schwarz criterion		5.260900
Log likelihood	-81.56009	Hannan-Quinn criter.		5.170629
F-statistic	14.8694	Durbin-Watson		1.9861

	0	stat	47
Prob(F-statistic)	0.000033		

INF @ LEVEL

Null Hypothesis: INF has a unit root				
Exogenous: Constant, Linear Trend				
Lag Length: 0 (Automatic - based on SIC, maxlag=0)				
			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic				
			-3.049248	0.1344
Test critical values:	1% level		-4.252879	
	5% level		-3.548490	
	10% level		-3.207094	
*MacKinnon (1996) one-sided p-values.				
Augmented Dickey-Fuller Test Equation				
Dependent Variable: D(INF)				
Method: Least Squares				
Date: 11/15/16 Time: 13:03				
Sample (adjusted): 1981 2014				
Included observations: 34 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
INF(-1)	-0.444222	0.145682	-3.049248	0.0047
C	13.60211	6.321850	2.151603	0.0393
@TREND("1980")	-0.269218	0.253293	-1.062870	0.2961
R-squared	0.232746	Mean dependent var		0.123824
Adjusted R-squared	0.183246	S.D. dependent var		15.54409
S.E. of regression	14.04789	Akaike info criterion		8.206919
Sum squared resid	6117.640	Schwarz criterion		8.341598
Log likelihood	-136.5176	Hannan-Quinn criter.		8.252848
F-statistic	4.70191	Durbin-Watson		1.7028

	7	stat		78
Prob(F-statistic)	0.016465			

INF @ 1ST DIFFERENCE

Null Hypothesis: D(INF) has a unit root				
Exogenous: Constant, Linear Trend				
Lag Length: 0 (Automatic - based on SIC, maxlag=0)				
			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			- 5.577550	0.0004
Test critical values:	1% level		- 4.262735	
	5% level		- 3.552973	
	10% level		- 3.209642	
*MacKinnon (1996) one-sided p-values.				
Augmented Dickey-Fuller Test Equation				
Dependent Variable: D(INF,2)				
Method: Least Squares				
Date: 11/15/16 Time: 13:03				
Sample (adjusted): 1982 2014				
Included observations: 33 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(INF(-1))	- 1.01254 6	0.181540	- 5.577550	0.0000
C	0.29171 8	6.031473	0.048366	0.9617
@TREND("1980")	- 0.02742 5	0.296280	- 0.092564	0.9269
R-squared	0.50955 7	Mean dependent var		- 0.2663 64
Adjusted R-squared	0.47686 1	S.D. dependent var		22.365 51
S.E. of regression	16.1766 1	Akaike info criterion		8.4915 17
Sum squared resid	7850.47 6	Schwarz criterion		8.6275 63
Log likelihood	- 137.110 0	Hannan-Quinn criter.		8.5372 93
F-statistic	15.5845 9	Durbin-Watson stat		1.9493 37
Prob(F-statistic)	0.00002 3			

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
GDP(-1)	-0.018104	0.187090	-0.096768	0.9236
UNEMP	-0.829061	0.613682	-1.350963	0.1868
INF	0.145010	0.259938	0.557864	0.5811
C	124.3005	25.16690	4.939048	0.0000
R-squared	0.108767	Mean dependent var		116.3503
Adjusted R-squared	0.019643	S.D. dependent var		22.99772
S.E. of regression	22.77072	Akaike info criterion		9.198959
Sum squared resid	15555.17	Schwarz criterion		9.378531
Log likelihood	-152.3823	Hannan-Quinn criter.		9.260198
F-statistic	1.220407	Durbin-Watson stat		2.043081
Prob(F-statistic)	0.319376			
*Note: p-values and any subsequent tests do not account for model selection.				

LM TEST RESULT

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	0.372771	Prob. F(2,28)	0.6922

Obs*R-squared	0.881821	Prob. Chi-Square(2)	0.6435	
Test Equation:				
Dependent Variable: RESID				
Method: ARDL				
Date: 11/15/16 Time: 13:06				
Sample: 1981 2014				
Included observations: 34				
Presample missing value lagged residuals set to zero.				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP(-1)	0.786474	0.932090	0.843775	0.4059
UNEMP	0.590871	0.928582	0.636316	0.5297
INF	-0.051840	0.275162	-0.188399	0.8519
C	-96.67281	115.0029	-0.840612	0.4077
RESID(-1)	-0.793295	0.919844	-0.862423	0.3958
RESID(-2)	0.019173	0.259328	0.073935	0.9416
R-squared	0.025936	Mean dependent var	6.06E-15	
Adjusted R-squared	-0.148004	S.D. dependent var	21.71103	
S.E. of regression	23.26227	Akaike info criterion	9.290328	
Sum squared resid	15151.73	Schwarz criterion	9.559685	
Log likelihood	-151.9356	Hannan-Quinn criter.	9.382186	
F-statistic	0.149108	Durbin-Watson stat	2.017964	
Prob(F-statistic)	0.978641			

BOUNDS TEST

ARDL Bounds Test			
Date: 11/15/16 Time: 13:06			
Sample: 1981 2014			
Included observations: 34			
Null Hypothesis: No long-run relationships exist			

Test Statistic	Value	k		
F-statistic	10.3829 4	2		
Critical Value Bounds				
Significance	I0 Bound	I1 Bound		
10%	3.17	4.14		
5%	3.79	4.85		
2.5%	4.41	5.52		
1%	5.15	6.36		
Test Equation:				
Dependent Variable: D(GDP)				
Method: Least Squares				
Date: 11/15/16 Time: 13:06				
Sample: 1981 2014				
Included observations: 34				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	123.8564	23.55306	5.25861 2	0.0000
UNEMP(-1)	- 0.968750	0.606837	- 1.59639 3	0.1209
INF	- 0.148837	0.250978	0.59302 6	0.5576
GDP(-1)	1.007211	0.181240	- 5.55732 2	0.0000
R-squared	0.509394	Mean dependent var		0.25811 8
Adjusted R-squared	0.460333	S.D. dependent var		30.6502 1
S.E. of regression	22.51626	Akaike info criterion		9.17648 4
Sum squared resid	15209.46	Schwarz criterion		9.35605 6
Log likelihood	- 152.0002	Hannan-Quinn criter.		9.23772 3
F-statistic	10.38294	Durbin-Watson stat		2.06056 4
Prob(F-statistic)	0.000076			

ECM

ARDL Cointegrating And Long Run Form				
Dependent Variable: GDP				
Selected Model: ARDL(1, 0, 0)				
Date: 11/15/16 Time: 13:07				
Sample: 1980 2014				
Included observations: 34				
Cointegrating Form				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(UNEMP)	-0.829061	0.613682	-1.350963	0.1868
D(INF)	0.145010	0.259938	0.557864	0.5811
CointEq(-1)	-1.018104	0.187090	-5.441792	0.0000
Cointeq = GDP - (-0.8143*UNEMP + 0.1424*INF + 122.0902)				
Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
UNEMP	-0.814319	0.576863	-1.411632	0.1683
INF	0.142431	0.253108	0.562728	0.5778
C	122.090176	10.214239	11.952939	0.0000