The Effect of Unemployment on Economic Growth in Nigeria

Rasheed Olayemi Nojeem[1*]

ABSTRACT

This study investigates the trends and effects of unemployment on economic growth in Nigeria using secondary data from relevant institutions for analysis from 2010 to 2020. The Auto Regressive Distribution Lag (ARDL) bounds test methodology is utilized to determine the long run relationship between unemployment and economic growth. The empirical findings using the ARDL Model confirmed that there exists an inverse relationship between economic growth and unemployment, and that unemployment leads to increasing crime rates in both short and long run.

INTRODUCTION

Nigeria is presently experiencing a high rate of unemployment which has significantly contributed to a higher level of poverty, whose effects and consequences have contributed to an increasing rate of insecurity (Egunjobi, 2021).

Unemployment is both an economic and social issue affecting almost all countries and all people directly or indirectly. It causes social anxiety, and is manifested in the wave of crimes, youth unrest and unstable socio-economic structure rampant in some nations. The world, particularly developing nations like Nigeria are facing serious job challenges and widespread decent work deficits (Adesina, 2013).

Okun's Law explains a meaningful empirical relationship of output (GDP) and unemployment in macroeconomic theory. The law has been found to hold for many nations.

LITERATURE REVIEW

Over the years, theoretical and practical research has been carried out between unemployment and economic growth, most importantly the study done by Arthur Okun (1962). According to Okun's study, increase in GDP causes a reduction in unemployment rate, on the other way round, low growth rate causes a risk in unemployment rate.

A Nigerian, Rafindadi, 2012) conducted a research using the OLS and Threshold model, the study revealed that a negative nonlinear relationship exists between GDP (output) and unemployment rate.

Omoke and Ugwuanyi, 2010) employ the co-integration and Gander-Causality test analysis to examine the relationship between money, inflation and output in Nigeria. The study revealed that there is no co-integrating relationship among the variables.

Some studies also confirmed that unemployment contributes significantly to the increasing crime waves in Nigeria.

In the post-colonial times, Nigeria started experiencing high rate of poverty and unemployment due to a fall in the price of crude oil since 1982, resulting in reduction in foreign exchange earnings, inadequate raw materials for manufacturing industries which invariably affect business firms, leading to economic downturn, unemployment and poverty (Ada and Chigozie, 2010).

Due to this scenario, it becomes imperative for incoming governments to formulate various policies to address the rise in poverty, unemployment and crime rate by coming up with different programs.

Deep-seated corruption and lack of good will by political leaders to formulate and implement policies, conflicts emanating from ethnicity, sectionalism, negligence of the agricultural sector and monoculture (reliance of the country solely on oil revenue) contribute to Nigeria economic mess.

MATERIALS AND METHODS

The data used in this research are collected from the World Bank database, the National Bureau of Statistics (NBS) and International Labour Organization (ILO) covering 2010 through 2020.

Okun's Model is adopted in the study. Unemployment and crime rates are the independent variables, while economic growth based on real GDP is the dependent variable. It should be noted that the Okun's Law is a reduced version of Philips Curve which explains that there is inverse relationship between the GDP growth rate and unemployment rate.

The Model explains thus;

[1] Abeokuta, Nigeria
* Corresponding author's e-mail: rasheedolayeminojeem@gmail.com

Rgdp = f (Uempl….)----------------------------(1)
Rgdp = β1 + β2 unempl + μ----------------------(2)
Rgcr = (Crimr)
Rgdp = GDP Growth (as in Economic Growth)
Unempl is the unemployment rate
β1, β2 = parameters
μ = error term
β1 < 0 and β2 > 0 (meaning that the expectations are β1, β2 having negative values)
To examine whether there is a long run relationship the unrestricted error-correction model (UECM) is adopted:
$\Delta LYt = \alpha 1 + \alpha TT + \alpha YLYt - 1 + \alpha Unempl LUnemplt - 1 + \sum \alpha i \Delta LYt - iP$ i=1 ++ $\sum \alpha j \Delta UNt - j$ qj=0 $+\varepsilon 1t$
Then, the use of ARDL model to ascertain the retention of lagged level variables is done.
The null and alternative hypotheses are as follow:
Ho : Y = Y2 = 0
Hα : Y1 ≠ Y2 ≠ 0

If t-calculated is greater than the table value, we reject the null hypothesis (Ho) and accept the alternative hypothesis (H1), on the other hand, if t-calculated is less than the table value, we accept the null hypothesis (Ho) and reject the alternative hypothesis (H1).

RESULTS AND DISCUSSIONS
The data is used for an empirical analysis of unemployment for the period between 2010 and 2020. The data give a detailed analysis of the estimation result, and provide evidence on the extent and direction of influence of key variables on empirical analysis of unemployment, economic growth and insecurity in Nigeria. The specific equations are estimated using the Auto Regression Distribution Lag (ARDL).
The interpretation of the result in respect of the coefficient of various regressions is stated in Table 1 and 2 below at 95% level of significance.

Table 1: The interpretation of the result in respect of the coefficient of various regressions

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	86.65519	157.1506	0.551415	0.5964
UNEMR	-21.58504	43.44426	-0.496845	0.6327
CRIMR	0.000274	0.000727	0.376487	0.7163
R-squared	0.034069	Mean dependent var		7.705155
Adjusted R-squared	-0.207414	S.D. dependent var		2.787632
S.E. of regression	3.063117	Akaike info criterion		5.303744
Sum squared resid	75.06150	Schwarz criterion		5.412261
Log likelihood	-26.17059	Hannan-Quinn criter.		5.235339
F-statistic	0.141081	Durbin-Watson stat		1.883278
Prob(F-statistic)	0.870532			

Table 2: Vector Autoregression Estimates

Date: 04/27/22 Time: 07:50			
Sample (adjusted): 2010 − 2020			
Included observations: 9 after adjustments			
Standard errors in ( ) & t-statistics in [ ]			
	GDPG	**UNEMR**	**CRIMR**
GDPG(-1)	-10.68980	0.045756	-4227.818
	(18.0119)	(0.07148)	(17496.9)
	[-0.59349]	[0.64017]	[-0.24163]
GDPG(-2)	10.49381	-0.040689	4815.623
	(18.9805)	(0.07532)	(18437.8)
	[0.55287]	[-0.54023]	[0.26118]
UNEMR(-1)	-2509.378	10.76068	-1059910.
	(4558.20)	(18.0879)	(4427871)
	[-0.55052]	[0.59491]	[-0.23937]
UNEMR(-2)	2678.545	-10.41685	1099358.
	(4616.53)	(18.3194)	(4484537)
	[0.58021]	[-0.56862]	[0.24514]
CRIMR(-1)	-0.000904	3.70E-06	0.345943

	(0.00080)	(3.2E-06)	(0.78160)
	[-1.12372]	[1.15961]	[0.44261]
CRIMR(-2)	-0.000508	2.11E-06	0.469593
	(0.00081)	(3.2E-06)	(0.78736)
	[-0.62646]	[0.65616]	[0.59642]
C	-663.6666	2.549163	-173171.3
	(387.078)	(1.53601)	(376010.)
	[-1.71456]	[1.65960]	[-0.46055]
R-squared	0.819845	0.986470	0.842509
Adj. R-squared	0.279380	0.945879	0.370035
Sum sq. resids	11.72001	0.000185	11059394
S.E. equation	2.420744	0.009606	2351.531
F-statistic	1.516924	24.30289	1.783185
Log likelihood	-13.95877	35.80616	-75.86749
Akaike AIC	4.657505	-6.401369	18.41500
Schwarz SC	4.810902	-6.247972	18.56840
Mean dependent	8.202567	3.845944	15444.44
S.D. dependent	2.851646	0.041292	2962.731
Determinant resid covariance (dof adj.)	0.000000		
Determinant resid covariance	0.000000		

Explanation of the Figures & Tables:

The coefficient of the variable, C = 86.65519

This value shows that when unemployment rate and crime rate are held constant (i.e. equal to zero), the Nigerian economy would grow by 86.65519.

For Unemployment Rate T statistics value = - 0.496845, while the table value = -2.365 (from T test table).

Then, - 0.496845 > - 2.365

Therefore, we Reject the Null hypothesis.

For Crime Rate, T statistics value = 0.376487, while the table value = 2.365

0.376487 < 2.365

Therefore, we Accept the Null hypothesis.

The value of R-squared = 0.819845

Expressing this as a percentage gives 81.98%.

This shows that unemployment and crime rate have 81.98% on the economic growth in Nigeria.

CONCLUSION

The study investigates the effect of unemployment on economic growth using data between 2010 through 2020 in Nigeria and utilizing Arthur Okun's Law. The Autoregressive distribution lag (ARDL) approach revealed that there is a long run relationship between economic growth rate and unemployment rate in Nigeria. Also, an increase in unemployment rate leads to an increase in crime rate.

LIMITATION

Poor financing is a limiting factor to this research work.

RECOMMENDATION

Moral Reformation: Impressive growth cannot be achieved in an economy without moral values. Today, Nigeria is ranked one of the most corrupt nations in the world. A country having many of its population as fraudulent, inconsiderate and dishonest people will not grow. There is a compelling need to re-orientate the citizens of the country to be honest, truthful, sincere, just and fair in all of their endeavors.

The Education Sector: The Nigerian education system is tailored to produce job seekers rather than job creators. The syllabuses and curriculums used in Nigerian schools need to be re-designed so that learning in schools is directed toward self-employment, self-reliance and self-emancipation.

The Rule of Law: African states, particularly Nigeria are facing a drastic decline in social justice. Gone are days when everyone is accountable to the law. Political office holders and government officials are fond of manipulating court orders when they embezzle or loot the public treasury. Billions of naira earmarked for capital projects in various sectors of the economy in order to bring about tremendous growth has been siphoned to private pockets by political office holders and government officials. For the economy to grow, Nigerian judicial system needs a complete overhaul. The sharpest weapon against corrupt practices is prosecution. Corruptions increase when corrupt elements go scot-free.

The Petroleum Sector: Nigerian refineries need to be repaired to enable them work at full capacity. Petroleum revenue should be judiciously spent. Subsidiary companies should be established for processing and marketing various by-products of crude oil.

Agricultural Sector: An efficient agricultural sector is needed to feed the ever increasing population in the

country, and to also create employment opportunities, provide raw materials for local industries and play a vital role in production and exportation of cash crops to facilitate the much needed growth in the Nigeria economy.

REFERENCE

Ahmed A. (2011). Financial Structure and economic growth link in African countries: a panel co-integration analysis. *Journal of Economic Studies 38*(3), 331-357.

Biyase M. and Bonga-Bonga L. (2010). South Africa's Growth Paradox. *University of Johannesburg working paper.*

Bankole A. and Fatai B. (2013). Empirical Test of Okun's Law in Nigeria, *International Journal of Economic Practices and Theories 3*(3), 23-36.

Chanshuai L. and Zi-juan L. (2012). The relationship among Chinese Unemployment rate, economic growth and inflation. *The AAEF Journal of Economics 1*(1), 1-3.

Egunjobi T. Adenike (2021.) *Tanzanian Economic Review, 11*, 115—136.

H. (2016). The impact of economic growth on unemployment in South Africa: 1994-2012, *Investment Management and Financial Innovations, 13*(2), 246- 255.

Irfan M. (2010). Financial Crises and Economic growth: a time series analysis, Munich personal RePEc Archive Paper No. 40691.

Kingdon G. and Knight J. (2007). Unemployment in South Africa 1995-2003: Causes, Problem and Policies, *Journal of African Economics, 16*(5), 813-848.

Osinubi T. (2005). Macroeconometric Analysis of growth, Unemployment and Poverty in Nigeria, *Pakistan Economic and Social Review 523*(2), 249-269.

Okun A. (1962). Potential GNP: Its Measurement and Significance in Statistics Section? American Statistical Association, Washington DC .

Omolewa Egor Ese (2018).Entrepreneurship development lecture notes.

Omoke P. and Ugwanyi C. (2010). Money, Price and Output: A Causality test for Nigeria, *American Journal of Scientific Research 7*(8), 78-87.

Pesaran M., Shin Y. and Smith R. (2001). Bounds testing approaches to the analysis of level relationships, *Journal of Applied Econometrics 16*(2), 289-326.

Rafinandadi A. (2012). Empirical Analysis of the Effects of Central Bank Communications on Money Market Volatility in Nigeria: 2007-2011,Unpublished Masters Thesis Ahmadu Bello University.

Shadid A., (2015). India-Saudi Arabia bilateral trade relations: Recent experiences and future opportunities, *International Journal of Economics and Empirical Research (IJEER) 3*(7), 327–342.

Stephen G. (2012). Reassessing the impact of finance on growth, Bank for International Settlements working paper, No. 381.

Wang S. and Abrams A. (2007). Can the budget boost agricultural performance: A VAR. *Journal of Economics and Management, University of Economics, Katowice, 35*(1) 2019.