Economic Recession and Economic Growth in Nigeria from 1980 –2020

Omolua, Roy Oshiokpekhai
Department of Economics,
Ignatius Ajuru University of Education,
Faculty of Social Sciences, Nigeria

Adeyemo, Oyindamola Olajumoke
Department of Economics,
Ignatius Ajuru University of Education,
Faculty of Social Sciences, Nigeria

Abstract
This study examined the impact of economic recession on economic growth in Nigeria from 1980 to 2020. Inflation rate, unemployment rate and poverty rate were used as independent variables while Gross domestic product (GDP) as dependent variable. Annual time series data on our targeted variables were obtained from secondary sources including the Central Bank of Nigeria annual statistical bulletin, World Bank development indicators (various years). The Eview9 Statistical Software was employed to ineptly analyze the data empirically. The Unit root test shows that Gross domestic product, unemployment rate and poverty rate variables to be evaluated are all stationary after first deference I(1) while inflation rate was stationary at level I(0)The data were analyzed using the Autoregressive distributed lag (ARDL) From the results of the ARDL estimates it was revealed that among others, inflation rate, unemployment rate and poverty rate impact negatively on Gross domestic product. It was found that unemployment rate was statistically significant both in the long run and short run while poverty rate was only statistically significant in the long run. Inflation rate was found to be statistically insignificant in both the long run and short run. The study recommended among others that government encourage investors by creating a conducive atmosphere for investment so as to increase the real gross domestic product. That Nigeria should diversify her economy and reduce over dependence on oil revenue, and as well promote the patronage of locally made goods.

Keywords: *Inflation Rate, Unemployment Rate, Poverty Rate and Real Gross Domestic Product.*

INTRODUCTION

Nigeria is highly vulnerable to the global economic disruption caused by COVID-19 pandemic, particularly due to the pronounced decline in oil prices and spikes in risk aversion in global capital markets. Nationally, 40 percent of Nigerians (83 million people) live below the poverty line, while another 25 percent (53 million) are vulnerable. With COVID-19 pandemic, many of these 53 million vulnerable people could fall into poverty. The magnitude of the health impact depends on the duration and the domestic spread of the outbreak, while the economic impact hinges on oil prices. Oil accounts for over 80 percent of exports, a third of banking sector credit, and half of government revenues. Oil prices also affect growth in non-oil industries and services, with additional pressures arising from foreign portfolio investors' reassessment of risks and domestic liquidity management (World Bank, 2020).

The macroeconomic situation is more challenging now than in 2015-2016, when oil prices fell sharply and Nigeria experienced its first recession in 25 years. In the current situation, Nigeria has fewer buffers and policy instruments to cushion adverse effects. The Excess Crude Account is depleted, external reserves are highly reliant on short-term flows, and policy uncertainty affects investor confidence. Before the 2016 recession, Nigeria's economy was growing fast at 6.3%. By contrast, before COVID-19 struck, the economy was growing at 2.2%. Inflation was in single digits in 2014, compared to about 12% in 2019. The general government fiscal deficit was 4.4% of GDP in 2019, compared to 1.8% in 2014. Unemployment and underemployment are expected to increase, affecting poor households and increasing the share of the population vulnerable to falling into poverty. Only agriculture is expected to positively contribute to growth between 2020 and 2022 (World Bank, 2020).

The general slowdown in the level of economic activities around its long term growth trend for two consecutive quarters is referred to as recession. Business fluctuations involve shifts over time between periods of relatively rapid economic growth, and periods of contraction or recession that is caused by a fall in Gross domestic product, investment spending, household income, business income, and inflation. It also characterized a rise in unemployment rate, bankruptcy and indebtedness. Simply put, a recession is a period of general economic slowdown. But in economics, a recession is a negative growth in GDP for two consecutive quarters. According to the business dictionary a recession is a period of general economic decline usually as a contraction in the Gross domestic product for six months (two consecutive quarters). A recession is characterized by high unemployment, falling average incomes, higher government borrowing and increased inequality (Tejvan, 2012).
Farayibi (2016), asserted that economic recession is a downturn in the economy which is characterized by such symptoms like exchange rate fluctuations, rising cost of goods and services, inability of government to pay workers' salaries and other allowances or to meet other financial obligations and poor performance of other macroeconomic variables which define the state of the economy at a given period of time.

According to John Maynard Keynes, economic recession is that period when there is a decline in aggregate demand and consumption of goods and services. The decline in the aggregate demand and consumption of goods and services is caused by a fall in revenue of manufacturing firms. A decline in production activities leads to a fall in output which invariably leads to retrenchment of workers, basically, because these firms would not be able to cover their cost of production; and this automatically results in an increase in the rate of unemployment in the country.
Economists have explained that recession is the period characterized by a decline in income, aggregate demand, prices of goods and services, investment and employment in the country. These characteristics and some others are present in Nigeria except one that is decline in prices of goods and services. Recession in Nigeria is peculiar in that, it is a combination of balance of payment deficit, high exchange rate, a rise in prices of goods and services (inflation), low aggregate demand, low output, rising unemployment, and low income. However, the last economic recession didn't just happen, it occurred as a result of actions and some decisions taken in the past by administrators and policy makers as well as the effect of the COVID-19 pandemic.

Objective of the study: to empirically investigate the impact of economic recession on economic growth in Nigeria from 1980-2020.

LITERATURE REVIEW

Theoretical Framework

Keynesian Demand and Supply Theory: Most mainstream economists believe that recessions are caused by inadequate aggregate demand in the economy, and favor the use of expansionary macroeconomic policy during recessions. Strategies favored for moving an economy out of a recession vary depending on which economic school the policymakers follow. Monetarists would favor the use of expansionary monetary policy, while Keynesian economists advocated increased government spending to spark economic growth. Supply-side economists suggested tax cuts to promote business capital investment. When interest rates reach the boundary of an interest rate of zero percent (zero interest-rate policy) conventional monetary policy can no longer be used and government must use other measures to stimulate recovery. Keynesians argue that fiscal policy tax cuts or increased government spending works when monetary policy fails. Spending is more effective because of its larger multiplier but tax cuts take faster effect.

Classical Theory: The Classical theory was the main body of economic theory from the18thcentury until the publication of J.M. Keynes' General Theory of Employment, Interest and Money. The classical theory derived from the Say's law of market and the Quantitytheory of money assumed that market forces operate in the private enterprise system automatically and that supply creates its own demand. When this is the case, competitive economy will automatically bring about full employment of resources and that unemployment is as a result of deficiency in effective demand. To the Classical, deficiencies in effective demand will result to unemployment, economic downturn and recession. The Classical theory is in line with the Mercantilist doctrine that a country should be great only by having a favourable balance of trade. This could be achieved through aggressive policies to stimulate exports, reduce imports and the accumulation of capital through trade and exchange rate manipulations (Toyo, 2000).

Conceptual Review

Inflation: inflation is an economic concept that refers to a rise in the price level of goods over a certain period of time. An increase in the price level signifies that the currency in a given economy loses purchasing power, that is, less can be bought with the same amount of money. The causes of inflation in the short term and medium term remain a contested issue amongst economists all over the world. Nevertheless, in the long run, there is a consensus that inflation is caused by changes in money supply.

Unemployment: unemployment refers to a state whereby individuals who are qualified and actively ready to be employed cannot secure employment. Included in this group are those in the workforce who are working but do not have an appropriate job. It is usually measured by unemployment rate, which is dividing the number of unemployed by the total number of workforce. It serves as one of a country's economic status.

Poverty Rate: Poverty as a multi-facet phenomenon, has no clear cut or universal accepted definition. Poverty is a state where an individual is not able to cater adequately for his or her basic needs of food, clothing and shelter. However, Eboh & Uma (2010), view poverty as "a lack of command over basic consumption needs", which means that there is an inadequate level of consumption giving rise to insufficient food, clothing or shelter, and moreover, the lack of certain capacities such as being able to participate with dignity in society.

Economic Recession: The general slowdown in the level of economic activities around its long term growth trend for two consecutive quarters is referred to as recession. Economic recession is that period when there is a decline in aggregate demand and consumption of

goods and services. The decline in the aggregate demand and consumption of goods and services is caused by a fall in revenue of manufacturing firms. A decline in production activities leads to a fall in output which invariably leads to retrenchment of workers, basically, because these firms would not be able to cover their cost of production; and this automatically results in an increase in the rate of unemployment in the country.

Economic Growth: economic growth is the increase or improvement in the inflation adjusted market value of the goods and services produced by an economy over time. In other words, economic growth is the increase in the value of an economy's goods and services, which creates more profit for businesses. As a result, stock prices rise. That gives companies capital to invest and hire more employees.

The global recession of 2009 brought a great amount of attention to the risky investment strategies used by large financial institutions, along with the global nature of the financial system. As a result of the wide-spread global recession, the economies of virtually all the world's developed and developing nations suffered significant setbacks. Numerous government policies were implemented to help prevent a similar future financial crisis as a result. Typically, a recession lasts from six to 18 months, and interest rates usually fall during these months to stimulate the economy.

In April 2009, IMF had changed their Global recession definition to a decline in annual per-capita real World GDP (purchasing power parity weighted), backed up by a decline or worsening for one or more of the seven other global macroeconomic indicators: Industrial production, trade, capital flows, oil consumption, unemployment rate, per-capita investment, and per-capita consumption.

By this new definition, a total of four global recessions took place since World War II: 1975, 1982, 1991 and 2009. All of them only lasted one year, although the third would have lasted three years (1991–93) if IMF as criteria had used the normal exchange rate weighted per-capita real World GDP rather than the purchase power parity weighted per-capita real World GDP.
There is no reliable way to predict how and when a recession will occur. But, according to many economists, there are some generally accepted predictors that when they occur together, may point to a possible recession.

Factors that Led to the 2016 and 2019 Economic Recession in Nigeria

Fall in the Demand for Nigeria's Crude Oil: as a result of the boom in oil production in 2014, the United States of America (USA) announced that it had reached the level of self-sufficiency and does not see the need to import crude oil anymore. This led to a fall in the total demand for Nigeria's crude oil from 2.29 million barrels per day in the first quarter of 2013 to 2.05 million barrels per day in the second quarter of 2015; and a fall in the percentage contribution of crude oil and gas to real GDP from 14.75 percent in the first quarter of 2013 to 9.80 percent in the second quarter of 2015; thereby leading to a fall in foreign exchange earnings. The fall in foreign exchange earnings then worsened the country's balance of payment. That was basically the beginning of the problem.

Mismanagement of Funds by Past Administration: One of the major causes of the recent economic recession in the country was as a result of mismanagement of funds by the past administration. During late Umaru Musa YarAdua administration (2007-2009), he inherited $45.0 billion as external reserve from President Obasanjo. In September 2008, the external

reserve grew to $63 billion and left $47.7 billion as at December 31st 2009 when Jonathan took over as overseer. The increased in the external reserve was as a result of rise in the price of crude oil in the World market to $147 per barrel. It then slides in mid-2008 during the recession when the price of the crude oil crushed to $35 per barrel in 2009 till his death. When President Goodluck Jonathan took office after the death of YarAdua, he inherited $3.94 billion as debt and as at 2014, the debt raised to $9.3 billion. President Jonathan inherited $47.7 billion in the foreign reserve account as at December 31st 2009. As at 2010, oil price shut up again to $89 billion per barrel. In 2011, it was $103 per barrel and as at early 2013, it was $100 per barrel. However, this means that the administration of President Jonathan had access to more money than late Yar Adua, but depleted our foreign reserve account and still plunged the country into further debt with nothing to show and the money from excess crude oil was not invested and instead it was shared among very few class of people in the country. Therefore, it is very clearly that the mismanagement of funds by the past administrations was to a larger extent the major cause of the recent economic recession in the country. In 2012, Nigeria earned N4.36 trillion, in 2013 Nigeria earned $84 billion (N13 trillion) and in 2014 (January to June), Nigeria earned $40 billion (N6.4 trillion) but we end up with nothing in our external reserve. However, assuming this money was saved for the rainy day, Nigeria might not have smelt any kind of economic problem the country is experiencing at the moment.

Crude Oil Supply Glut: another major reason that was responsible for recession experienced in Nigeria within the periods of 2016 and 2020 is the fall in international demand for crude oil and the lifting of ban on export of Iran's crude oil which led to a supply glut in the international market, thereby leading to the fall in global oil price from an all-time high of $114.49 per barrel in December 2012 to $53.77 per barrel on July 30 2015, and subsequently, to an all-time low of $27.82 and $36.40 per barrel on January 20 2016 and March 4 2019 respectively.

Corruption: Another major cause of economic recession in Nigeria is corruption. Corruption is a disease, which has eaten deep into the political and economic systems of Nigeria. Smah (2014), defines corruption from the legal perspectives to mean any behavior that contravenes what has been officially disallowed and includes the fact that it is aimed at obtaining some benefits and attempts for effort to evade the consequences of such act. In Nigeria, resources that are allocated for industries, hospitals, road construction, schools and other infrastructure are either embezzled, misappropriated, or otherwise severely depleted through kickbacks and over invoicing by government officials. The most painful part of this corruption is that after our wealth has been stolen, instead of investing it in the economy they rather take it to save in foreign accounts for their families and unborn children

Security Problems: the activities of militants in the Niger Delta in the South-South region of the country, which is the main location of crude oil production in Nigeria was another cause of recession in Nigeria. Those activities involved bombing of oil installations and vandalizing of pipelines. On 25th of March 2016, the militants attacked and vandalized a crude oil pipeline. It was reported that the attack led to the complete shutdown of Shell Forcados terminal which caused a shortfall of 380,000 barrels per day of crude oil export, thereby leading to a loss of about $2 billion in potential revenue.

This problems also include the herdsmen/farmers conflicts on agricultural production in all part of the country particularly in the North-Central and North-East of the country and the problem of Boko Haram activity on agricultural output and trade in North-East. All these problems have contributed toward the recent economic recession in Nigeria.

Over-reliance on importation: the over reliance on imported goods and services is another cause of recession in Nigeria. Based on this, a fall in foreign exchange earnings led to an increase in the gap between the demand and supply of foreign exchange, thereby leading to a fall in the value of Naira. Nigeria, that was practicing a fixed exchange rate regime, had to devalue her currency, which led to the adoption of a floating exchange rate.

Treasury Single Account (TSA) Introduction: the introduction of the so called Treasury Single Account (TSA) also paved way for the recession. The TSA was a good policy idea that if properly implemented would have helped in blocking the loopholes in the economy and minimize the level of corruption in the country but instead it mopped up liquidity in the circulation and silenced credit creation and economic activities in the country.

Subsidy Removal: the subsidy removal was done at the wrong time. Even though the subsidy removal was intended to remove the cabals and liberalize the petroleum sector, its multiplier effects on the economy was too bad. Because everything in Nigeria depends on oil prices, when the pump price increased, it caused a serious inflationary pressure.

Empirical Review

Several studies have been carried out over the years on the impact of recession on economic growth. However, there have been different and conflicting opinions amongst various scholars.

Adetayo and Ben (2018) investigate economic recession and way out. He affirmed that Nigeria's economy has gradually shifted from the level of economic buoyancy to the level of economic recession due to the totality of certain factors and if care is not taken, it will gradually shift from economic recession to total economic meltdown which can be catastrophic, heartbreaking and deadly in nature. Nigeria, the hub of West Africa's economy has remained stagnant, following the declaration of global financial crisis. Adetayo and Ben (2018), argued that the global economic and financial crisis has become a major concern for political leaders, economists and managers of financial institutions across the globe. Addressing the global financial crisis is expedient because it is the foundation and backbone for developing economy where Nigeria is inclusive. Bauer (2009) linked economic recession and the global financial crisis with poverty incidence in developing countries.

Agri, et al., (2017), examined the impact of economic recession on macroeconomic stability and sustainable development in Nigeria from 1980 – 2016. The Ordinary Least Square (OLS) method was adopted for data analysis. The results show negative impact of these variables on economic growth and sustainable development. The recession impacts on socioeconomic and political lives of the Nigerian people, and should be studied to find the root causes and proffer solutions for sustainable economic development. This study perceives economic recession as a symptom of deeper structural problems inherent in the Nigerian economy, and overdependence on external modern capitalist societies. Oyewole and Olaniyi (2017), examined the business educators' perception of the impact of economic recession on Nigeria's socio economic lives. The study adopted descriptive survey design. A five point rating scale items structured questionnaire was used for data collection. The research findings showed that the economic recession highly affected Nigeria's socio-economic lives.

Shido-Ikwu (2017), examined the major reasons for the emergence of the current economic recession in Nigeria. The study exposes theoretically how government policies could

potentially curb the recession and enhance better economic well-being of the Nigerian population. The research findings indicate that the main causes for the emergence of the economic recession in Nigeria can be grouped under three main factors: legacy factors, policy factors and political/security factors. Awujola and Ejezie (2015), examined the impact of Global economic recession in the context of the political economy approach. The study used the global economic recession as a variable between Micro and Macro factors in fiscal and monetary policies of the elitist economic managers and state government in the international economic system.

METHODOLOGY

Model Design

The method adopted in this study is both descriptive and analytical on time series. The researcher adopted the quasi-experimental design called correlational research design which according to Hassan (1995), aims at establishing relationships between variables and to know if the relationship that exist is significant. Another justification for the use of quasi-experiment research design is that the study is descriptive and analytical on the basis of stochastic statistics and the variables are not under the control of the researcher.

Model Specification

The functional form on which the econometric model will be built is expressed as:

GDP = F(INFL, UNEMP, POVR)………………………….. 1

Where;

GDP = Gross Domestic Product

INFL = Inflation Rate

UNEMP = Unemployment Rate

POVR= Poverty Rate

F = Functional notation

GDP is a dependent variable while

INFL, UNEMP and POVR are the explanatory variables.

The linear regression models base on the above functional relation is expressed as:

$GDP = \beta_0 + \beta_1 INFL + \beta_2 UNEMP + \beta_3 POVR + U$……………………….2

$\Delta GDP_t = \alpha_{0i} + \beta_{1i}\, GDP_{t-1} + \beta_{2i}\, INFL_{t-1} + \beta_{3i}\, UNEMP_{t-1} + \beta_{4i}\, POVR_{t-1} + \sum^{q}_{i=1} \alpha_1\, \Delta GDP_{t-1} + \sum^{p1}_{i=1} \alpha_2\, \Delta INFL_{t-1} + \sum^{p2}_{i=1} \alpha_3\, \Delta UNEMP_{t-1} + \sum^{p3}_{i=1} \alpha_4\, \Delta POVR_{t-1} + {}_{t-1} + et$………………………………………3

ECM

$\Delta GDP_t = \alpha_{0i} + \sum^{q}_{i=1} \alpha_{1i}\, \Delta GDP_{t-1} + \sum^{p1}_{i=1} \alpha_{2i}\, \Delta INFL_{t-1} + \sum^{p2}_{i=1} \alpha_{3i}\, \Delta UNEMP_{t-1} + \sum^{p3}_{i=1} \alpha_{4i}\, \Delta POVR_{t-1} + \lambda ECT_{t-1} + et$…………………3.4

$\beta_1 \geq 0, \beta_2 \geq 0, \beta_3 \geq 0, \beta_4 \geq 0, \beta_5 \geq 0,$

Where β_0 is the regression constant or intercept,$\beta_{1,}\beta_2\beta_3\beta_4$and β_5 are the regression coefficients or parameters and U is the random variable. All other terms are as earlier defined.

Empirical Results and Discussions

This section proceeds to the presentation of data, analysis, as well as interpretation of results in light of the statistical method which has been adopted for the investigation so as to evaluate the interrelationship between Real Gross Domestic Product (RGDP), Investment (INV) and Savings (SVG) in Nigeria. The test of relevant research hypotheses is also carried out trying to give answers to the research question.

Data Analysis

Table 1 Augmented Dickey Fuller and Philips Perron Unit Root Test for GDP Model

Variable	ADF					PP				
	Level		1st Diff		I(.)	Level		1st Diff		I(.)
	Coeff.	5% CV	Coeff.	5% CV		Coeff.	5% CV	Coeff.	5% CV	
INFL	-5.915	-2.939			I(0)	-2.937	-2.911			I(0)
UNEMP	1.373	-2.937	-4.994	-2.937	I(1)	1.230	-2.937	-5.018	-2.939	I(1)
POVV	-1.946	-2.937	-6.993	-2.939	I(1)	-1.946	-2.937	-6.993	-2.939	I(1)
GDP	-0.288	-2.939	-4.947	-2.939	I(1)	-0.148	-2.937	-4.993	-2.939	I(1)

Table 4.3 shows the result of unit root test conducted with both Augmented Dicky Fuller Test (ADF) and Philips Perron Test (PP). To get a robust result for this empirical study, we adopted the outcome of Philip Perron statistics due to the robustness of the result in point of structural breaks. In line with the prepositions of Jenkins and Box (1970).Variable that are not stationary at levels would be made stationary after first difference. The following variables in the model were made stationary after first difference, UNEMP, POVR and GDP while INFL was stationary at level.

Table 2, Bound Test for GDP Model

ARDL Bounds Test
Date: 01/12/80 Time: 01:12
Sample: 1983 2020
Included observations: 38
Null Hypothesis: No long-run relationships exist

Test Statistic	Value	K
F-statistic	5.185253	3

Critical Value Bounds

Significance	I0 Bound	I1 Bound
10%	3.47	4.45
5%	4.01	5.07
2.5%	4.52	5.62
1%	5.17	6.36

Source: Computed from E-view

The result presented in table 4.4 shows that the calculated F-statistics of 5.185253 is higher than the upper bound critical value of 5.07 at 5% significant level. Based on this result, it is concluded that a long run relationship exists among the variables of GDP model. So, there is a long run co-integration amongst the variables in the Gross domestic product model.

Table 3 ARDL-ECM Short-run Results for GDP model

Dependent Variable: GDP
Selected Model: ARDL(1, 0, 0, 3)
Date: 01/12/80 Time: 01:42
Sample: 1980 2020
Included observations: 38

Cointegrating Form

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(INFL)	-0.179343	0.263879	-0.679643	0.5021
D(UNEMP)	-18.208442	3.961351	-4.596524	0.0001
D(POVR)	-1.569663	1.043417	-1.504348	0.1433
D(POVR(-1))	-0.574973	1.243364	-0.462433	0.6472
D(POVR(-2))	2.752577	1.417191	1.942276	0.0619
D(@TREND())	7.905797	1.671595	4.729494	0.0001
CointEq(-1)	-0.347708	0.084964	-4.092404	0.0003

Cointeq =RGDP - (-0.5158*INFL -52.3671*UNEMP -15.4046*POVR +
791.5032 + 22.7369*@TREND)

R-squared	0.984033	Mean dependent var	198.4376
Adjusted R-squared	0.979628	S.D. dependent var	173.6195
S.E. of regression	24.78072	Akaike info criterion	9.461403
Sum squared resid	17808.44	Schwarz criterion	9.849252
Log likelihood	-170.7667	Hannan-Quinn criter.	9.599397
F-statistic	223.4036	Durbin-Watson stat	1.998345
Prob(F-statistic)	0.000000		

Discussion of estimated short run for GDP model

The result of the short – run dynamic regression for Gross domestic product model is presented in table 4.5. The regression result indicates that in the short run, all the variables have negative relationship with Gross domestic product but only unemployment rate is statistically significant at 5% level of significance. Inflation rate coefficient is negatively signed but not statistically significant. In terms of magnitude, 1 percent increase in inflation rate would lead to -0.179343 decrease in Gross domestic product in the short run, ceteris paribus. Unemployment rate coefficient is negatively signed and it is also found to be statistically significant. This implies that a unit increase in unemployment rate would lead to -

18.208442 decrease in GDP in the short run all things be equal. Poverty rate coefficient has a negative sign but it is found not to be statistically significant. It thus means that a unit increase in poverty rate would lead to -1.569663 decrease in GDP in the short run, all things be equal.
The ECM turned up with a negative value of -0.347708 as the ECM coefficient and it is significant which suggests 34% speed of adjustment. This means that approximately 35% of discrepancy in the previous year is adjusted for the current year.
The R-squared (R^2) coefficient of determination, showing an output of 0.984033, signifies that the predictors account for approximately 98 percent variation in the dependent variable. R-squared 0.0979628, which indicates credibility in the goodness of fit in the model. However, the Durbin Watson reveals an output of 1.998345 which shows the validity and reliability in relevant range. The F-statistics which shows the overall significance given its probability value of 0.000000 is significant. While Akaike information criterion is the best amongst other information criteria for the model.

Table 4, ARDL Long Run Regression for GDP
Long Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INFL	-0.515788	0.747877	-0.689669	0.4959
UNEMP	-52.367064	15.549544	-3.367756	0.0022
POVR	-15.404594	2.457123	-6.269361	0.0000
C	791.503154	142.069407	5.571243	0.0000
@TREND	22.736893	2.097069	10.842225	0.0000

Discussion of the Estimated Long-run for GDP Model
The result of the long run regression estimates for Gross domestic product model is presented in table 4.5. The regression estimates indicate that inflation rate, poverty rate and unemployment rate are all negatively signed but is the coefficient of inflation rate that is found not to be statistically significant at 5% level of significance. This indicates that in the long run, increase in unemployment rate and poverty rate would significantly reduce gross domestic product in Nigeria. However, inflation rate does not meaningfully affect gross domestic product in the long run because of the statistical insignificance of the variable. This may be attributed to the fact that there are other factors other than inflation rate that could negatively affect gross domestic product such as high unemployment, pandemic, corruption etc.
Inflation rate coefficient is negatively signed. It has a negative coefficient of -0.515788. In terms of magnitude, 1 percent increase in inflation rate would lead to -0.515788 decrease in Gross domestic product in the long run.
Unemployment rate coefficient has a negative sign and it is found to be statistically significant at 5% level. It thus means that a unit increase in unemployment rate would lead to -52.367064 decrease in GDP in the long run.

Table 5, Diagnostic Test Statistic

Test/Hypothesis	Test Type	Test Statistics	Prob.	Remarks
Residual Normality	Jacque-Bera (JB)	6.9956	0.0575	Accepted
Serial Correlation	Breusch-Godfrey (BG)	5.8162	0.0646	Rejected
Heteroscedasticity	Breusch-Pagan	7.4162	0.0598	Rejected

To ensure the robustness of the regression estimate, some diagnostic tests such as normality and heteroskedasticity tests were conducted. The normality test results showed that the probability value of the Jarque-Bera statistics is greater than 5%, indicating that the residuals from the estimates are normally distributed while the heteroskedaticity test also showed the absence of serial correlation in the estimates. This is because the probability value is greater than 0.05. The results of the diagnostic tests showed the appropriateness of the regression estimates.

Conclusion/ Recommendations

This study examined the impact of economic recession on economic growth in Nigeria from the period 1980 – 2020. In achieving the objective of this study, the researchers employed econometrics method to analyze data. The study investigated the long run and short run relationship between the variables by using Autoregressive distributed lag (ARDL). The empirical results show that GDP is influenced negatively by inflation rate both in the long run and short run but found to be statistically insignificant. What this means is, inflation does not meaningfully affect GDP in Nigeria. The results also show that GDP has a negative relationship with unemployment rate and poverty rate and they are both statistically significant in the long run although poverty rate was not significant in the short run. Based on the findings, the study therefore recommends that**;** instruments of fiscal and monetary policies should be adopted to tackle the problem of recession and bring economic activities back on track. As these two instruments are essential to solving the problem of economic recession

Adoption of Fiscal Policy: Government should adopt fiscal policy which has to do with the use of the two instruments of expenditures and taxes. On the taxes, government can lower its taxes on individuals and businesses by increasing the disposal income of the household and additional resources to businesses for consumption and investment. On the other hand, government expenditure which is the second instrument of fiscal policy to increase their spending in real activities during recession to bring about stability in the economy. Therefore, when government reduced it taxes for individuals and businesses and increases it spending; extra money will be made available for consumption and investment which would increase employment and ultimately stabilize the economy.

Removal of Market Distortions: the government needs to remove all forms of market distortions so as to allow the forces of demand and supply to determine what happen in the market. This would help to ensure competition in all the sectors of the economy. Competition discourages laziness but encourages efficiency.

Reduction in the Cost of Governance: Government should come up with a policy that is aim at reducing the cost of governance and embolden the general public to patronize home made goods and services. For example: medical services, tourism, vacation, cars, cloths, shoes, etc. that are produced locally, should be patronized. This would help save foreign exchange and also improve the quality of goods and services produced in the country and by this there would be a drastic reduction in unemployment.

Building of Modular Refineries: the government should come up with a policy that would pave way for the construction of modular refineries. Building of modular refineries is not capital intensive compared to constructing standard refineries. When there is an increase in the supply of Premium Motor Spirit and diesel that would cause their prices to fall thereby leading to a reduction in the cost of transportation and cost of generating electricity using PMS and diesel generators as this policy would help in tackling the challenges of recession.

REFERENCES

Adetayo O. A & Ben O. S (2018). Economic recession and the way out: Nigeria as case study strictly as per the compliance and regulations. Global Journal of Human Social Science, 18(1), 11

Agri, E.M., Mailafia, D. & Umejiaku, R.J. (2017). Impact of economic recession on macroeconomic stability and sustainable development in Nigeria. *Science Journal of Economics*, 8(3), 1-12.

Awujola, A. & Ejezie, J.C. (2015). The global economic recession phenomenon: A realistic policy Option the Way out. *Journal of Poverty, Investment and Development,* 15(7), 79-86.

Eboh, F. E. & Uma, K. E. (2010). Rural infrastructural development: A panacea for poverty alleviation in Nigeria. *African Journal of Professional Research in Human Development, 6(3), 39-45.*

Farayibi, A. (2016). Perspective on the Nigerian economic recession. Centre for Allied Research and Economic Development. Ibadan.

Hassan, T. (1995). Understanding research in education. May field publishing company.

Jenkins, G. M. & Box G. E. P. (1970). Time series analysis, forecasting and control: San Francisco, Holding-Day

Oyewole, S. O. & Olaniyi, O. N. (2017). Business educators' perception of the Impact of economic recession on Nigeria's socio economic. International Journal of Innovative Research in Education. *Technology & Social Strategies,* 4(1), 31-84.

Shido-Ikwu, B.S. (2017). Economic recession in Nigeria: A case for government intervention. *SSRG International Journal of Economics and Management Studies (SSRG-IJEMS*). 4(6), 50-53.

Smah, S. O. (2014). *The ABC of corruption in Nigeria: Simplifying the understanding of corruption in Nigeria to enable us fight it better.* Eiwa Press Limited.

Tejvan, P. (2012). *Negative impact of economic recession.* Oxford University, London

Toyo, E. (2000). *Background to globalization.* Ibadan: Academic staff union of Universities (ASSU).

World Bank (2020). *The world Bank in Nigeria.* https://www.worldbank.org/en/country/nigeria/overview