



Impact of Corruption, Unemployment and Inflation on Economic Growth in Nigeria

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Abstract

This study investigates the impact of corruption, unemployment and inflation on economic growth in Nigeria for the period of 2010Q1 to 2022Q4. The endogenous theory of growth provided the theoretical framework for the study. Data were obtained from Transparency International, World Bank and World Governance Indicators. This study uses Auto-regressive distributed lag model to examine the impact of corruption, unemployment, inflation and economic growth in Nigeria. The estimate of Auto-regressive distributed lag revealed that corruption, political stability and rule of law had a significant negative impact on economic growth, while inflation, unemployment and government effectiveness had a significant positive impact on economic growth. The study recommends the strengthened and empowerment of the ant-corruption agencies to carry out the fight against the endemic corrupt practices, government should implement labour market policies that promote job creation, particularly for young people and also promote inclusive economic growth in Nigeria.

Keywords: ARDL, Economic Growth, Inflation, Nigeria

Background to the Study

Economic growth is of significant importance as it can contribute to improved living standards, poverty reduction, and increased employment opportunities (Azamat et al., 2023). Countries are given the opportunity to allocate funds towards the development of infrastructure, education, and healthcare, which in turn contributes to the advancement of both societal and economic growth. However, the pursuit of economic growth also presents challenges. It can strain natural resources and contribute to environmental degradation, leading to concerns about sustainability (Zhou et al., 2023). Promoting sustainable and inclusive economic growth is a global priority. Governments and international organizations strive to strike a balance between economic expansion, environmental sustainability, and social inclusiveness (Rasoolimanesh et al., 2023). Economic growth issues impact countries and regions around the world. Issues such as corruption, unemployment and inflation have implications for the stability and well-being of economies and societies (Khan et al., 2021). Corruption is a persistent problem that undermines economic growth. It distorts market mechanisms, erodes public trust, and diverts resources away from essential public services (Varvarigos, 2023). Unemployment is a pressing concern as it affects individuals, societies, and economies. High levels of unemployment can lead to social unrest, loss of human potential, and reduced economic productivity (Al-Rubay, 2021). Economic growth is hindered by corruption, which discourages investment and undermines trust in institution, leading to reduced economic activity and increased unemployment.

Nigeria, like many other countries, faces challenges of unemployment. According to recent data from (World Bank, 2022), the unemployment rate in Nigeria stood at 34.9% 2020, in 2021 it reduced 33.3% and in 2022 unemployment rate increases to 37.7%. These figures are quite high and represent a significant portion of the population that is without employment opportunities. There are various factors contributing to the unemployment problem in Nigeria. These include rapid population growth, limited job creation opportunities, inadequate investment in sectors that can generate employment, mismatch between the skills possessed by job seekers and the skills demanded in the labour market and limited access to quality education (Maonga, 2022).

Nigeria has experienced double-digit inflation rates in the past few years. In 2015, the inflation rate reached 9.01%, while in 2017 it shot to 16.52%, in 2019 it reduced again 11.40% and in 2020 due to the pandemic it increases to 15.75% which was the highest in more than two years, in 2021 inflation rate was 16.95%, in 2022 it increases to 18.85%, in 2023 inflation was 28.92% and in the first quarter of 2024 inflation rises drastically to 33.69% (World Bank, 2022). Inflation, a persistent and pervasive issue in many countries, has a debilitating impact on economic growth, undermining the potential for sustainable development and prosperity (Maonga, 2022). Inflation erodes purchasing power, reducing the value of money and decreasing consumer spending, uncertainty and volatility, discouraging investment and hindering economic planning, redistributes wealth unfairly, benefiting debtors at the expense of savers and fixed-income earners, increases the cost of living, particularly for vulnerable populations, reduces the competitiveness of domestic industries, leading to

decreased exports and economic growth, decreases the value of savings and fixed-income investments and reducing financial security (CBN, 2022). Despite having the world's seventh largest reserve of crude oil coupled with other resources in Nigeria, poverty and underdevelopment still ravage the country with unstable economic growth.

Although, there are several studies on the impact of corruption, unemployment and inflation on economic growth (Uddin & Rahman, 2022), especially for developing countries. This study contributes to existing studies by examining the impact of corruption, unemployment and inflation on economic growth in Nigeria. This study adds value to past studies by examining the impact of corruption, unemployment, inflation and economic growth in Nigeria. The subsequent sections of the paper are organized as follows: Section 2 reviews the existing literature. Section 3 describes the methodology. Section 4 presents the empirical findings and provides a detailed discussion. Finally, Section 5 summarizes the study's finding and offers policy recommendations.

Literature Review

Conceptual Review

Economic growth is the continuous rise in the value of goods and services an economy produces over time, after adjusting for inflation (El-Rasheed & Abdullahi, 2023). Typically, it is expressed as the rate of growth in real gross domestic product, or real GDP. GDP is the total actual number of products and services produced within the country during a given period, mostly a year. The rate of GDP growth is a critical measure of a country's economic strength. Despite being often estimated on an annual basis. GDP can also be computed on a quarterly basis. It consists of all domestic and international trade balances, government expenditures, investments, private inventories, and paid-in building expenses (exports are added, imports are subtracted). The economic growth of a country is a function of many factors including revenue of the government (Chude & Chude, 2015).

Corruption refers to the abuse of entrusted power for personal gain or to obtain an unfair advantage (Aliev, 2023). It involves the misuse of public office or authority for private or personal benefit, often at the expense of the public or the common good. Corruption can take various forms, including bribery, embezzlement, nepotism, favoritism, fraud, and extortion (Ikona et al., 2022). It affects both developed and developing countries and can occur in both the public and private sectors. Corruption undermines trust in institutions, hampers economic development, distorts fair competition, perpetuates poverty, and undermines the rule of law.

According to Qiu (2022) unemployment is conceptualized as a situation wherein a worker is or workers are involuntarily out of work. This means that workers are willing and able to work but cannot find any work. Unemployment has been defined by the classical economists as the excess supply of labour over the demand for labour which is caused by adjustment in real wage. The Classical or real wage unemployment occurs when real wages for jobs are set above the market-clearing level, causing number of jobseekers to exceed the number of vacancies.

Unemployment is defined as a state of joblessness which occurs when people are without jobs, and they have actively sought work within the past four weeks (Hall & Kudlyak, 2022). There are various schools of thought on inflation, but there is a consensus among economists that inflation is a continuous rise in the prices. Simply put, inflation depicts an economic situation where there is a general rise in the prices of goods and services, continuously. It could be defined as a continuing rise in prices as measured by an index such as the consumer price index (CPI) or by the implicit price deflator for gross national product (GNP). Inflation is frequently described as too much money chasing too few good. When there is inflation, the currency losses purchasing power (Jain et al., 2022).

Theoretical Review

Endogenous Growth Theory; The theory was found in the 1980s by great economist Romer (1986), the endogenous theory states that economic growth is a result of internal forces but not external ones. It states that growth in the economy is determined by the rate of capital accumulation and savings. It argues that advancements in output are directly tied to innovating private sector institutions` and more investments in human capital from the government. So, the campaign for the private sector and government institutions to foster innovative ideas and tender encouragement for persons and businesses to be more inventive, like intellectual property rights and research and development finding. It posits that returns to scale increase capital investment more especially in health, investment in education, telecommunication, and infrastructure. It believes that the creation of new businesses by the government will be an important source of further innovation, new jobs and investment. The evaluation of the growth rate of productivity per individual depends on the growth rate of total factor of production in the long run, which is as well verify by the rate of technical progress. It states that the outcome of economic activities is new goods, markets, and processes; these take place during innovation and technical progress. Though competitive equilibrium cannot be based on technical improvement because factors are compensated base on their marginal products.

Policy-Oriented Theory of Corruption: This theory was developed by Teveik, Albert and Charles (1986), in explaining the role of government in fighting corruption. They state that despite corruption frequent occurrence, government involvement in corruption has undergone surprisingly with its effect of the growth of the economy which needs serious investigation. This theory emphasizes the importance of designing effective policies and strategies to prevent and combat corruption. It recognizes that corruption is a complex and multifaceted problem that requires a comprehensive approach, involving legal, political, economic, and social dimensions. Policy-oriented theories of corruption also emphasize the need to develop and implement anti-corruption measures that are tailored to specific contexts and address the unique challenges faced by different countries and regions. These measures can include strengthening legal frameworks, promoting transparency and accountability, fostering citizen participation, and enhancing international cooperation.

Keynesian Theory of Unemployment: in 1936 John Maynard Keynes propounded a theory called the Keynesian theory of unemployment in his work titled, "The General Theory of Employment, Interest, and Money". Keynesian theory of unemployment states that economic productivity is significantly subjective to total demand (the aggregated costs in the country) in the short run, especially in recessions. It also postulates that the productive competence of a country is not necessarily equivalent to total demand. That a lot of features and stimuli could attribute to total demand such as a change in total demand affects inflation, employment, and production in the country. A decrease in demand leads to unemployment and recession. That reducing wage is not a cure to a recession but rather raising the level of government investment and reducing the interest rate. Unemployment in a country is a result of higher savings than investment.

Empirical Review

Fatih et al. (2023) examined unemployment – corruption relationship in OECD countries. The study adopted Generalized Method of Moments approach. The variables adopted in the study are Corruption Perception Index and unemployment. The result reveals that specific policies should be implemented to eliminate corruption in political and bureaucratic spheres so that the unemployment rate can be maintained around the natural rate of each country. Dada et al. (2023) investigates economic growth, inflation and unemployment in Africa using the panel Autoregressive Distributed Lag model (Bounds test) and Pooled Mean Group. The variables used in the study are economic growth, debt, labor force, unemployment, inflation, foreign direct investment, gross capital formation, and population. The result shows that economic growth, debt, labor force and population have a positive relationship with unemployment in the long run. Therefore, an increase in these variables generates an increase in the selected African countries' unemployment growth. In contrast, inflation, foreign direct investment, and gross capital formation have a negative relationship with unemployment in the long run, which implies that an increase in these variables reduces unemployment in the selected African countries.

Shiferaw (2023) explored how gross domestic product, unemployment and inflation interact and change across time and frequency. The data was adopted from National Bank of Ethiopia and the World Bank Database. The result showed that unemployment significantly negatively impacted gross domestic product. However, it was found that inflation significantly increased gross domestic product. The general conclusion drawn from this study's findings is that unemployment significantly affects gross domestic product and inflation in Ethiopia. Ekpeyong (2023) analyze the impact of inflation, unemployment, and economic growth on poverty reduction: A novel application of asymmetric technique using Non-linear Autoregressive Distributive Lag (NARDL) approach. The data was employed from World Development Indicators 2019. The variables used are Poverty rate, economic growth (GDP), unemployment rate, inflation rate and population growth. The result showed that in the short run, inflation, unemployment (positive and negative shocks), and population significantly influence poverty rates in Nigeria. However, these effects are not

statistically significant at conventional levels. In the long run, population growth, unemployment, and inflation (negative shock) do not have a substantial impact on poverty.

Gholamreza et al. (2022) study explored on how corruption, inflation and unemployment influence the income inequality of developing Asian countries. The variables adopted for the estimation are corruption, inflation, Gini index and unemployment. The study employed Random Effect Model (REM) and Generalized Method of Moments (GMM). The result shows that corruption, inflation and unemployment have a significant positive relationship with the Gini index, hence, are core factors that increase the income inequality level in developing Asian countries.

Rehman et al. (2022) considered the "Three Evils": inflation, poverty, and unemployment's shadow on economic progress—A novel exploration from the asymmetric technique using time series data from 1986 to 2020, to determine the impact of inflation, poverty, unemployment, and population growth on economic growth in Pakistan. They adopted Non-linear Autoregressive Distributive Lag approach. The variables used for the study are Inflation rate, unemployment rate, population growth and economic growth. The result shows that variable inflation and poverty have adversative linkages to economic growth, unemployment has a positive association with economic growth and variable population growth showed a negative association via short-run and long-run dynamics. Inflation, poverty, and unemployment are now emerging issues in Pakistan.

Abada (2021) examined the impact of unemployment, inflation, and household's consumption on economic growth in Nigeria from 1960 to 2018. Ordinary Least Square (OLS) estimation technique was adopted. Data were sourced from World Bank (2019) Database. The variables adopted for the study are inflation, unemployment rate, consumer price index and gross domestic product. The results show that unemployment, inflation, and household's consumption impacted on economic growth. But it was observed that inflation significantly influence economic growth in Nigeria. However, controlling the influence of Consumer Price Index (CPI), is a key determinant of economic growth.

Onwubuariri et al. (2021) explored on inflation and economic growth in Nigeria. The study adopted Autoregressive Distribution Lag (ARDL) model. Data were employed from the World Development Indicators (WDI) published by the World Bank. The variables used are inflation rate, gross domestic product, real interest rate, exchange rate and government consumption expenditure. The results indicated that inflation has negatively affected economic growth over the years as it reduces competitiveness as well as lowering the purchasing power of money. Khan and Naushad (2020) study analyze the relationship of inflation with economic growth in the world economy. Generalized Methods of Moments (GMM) method is used in the study. The data was obtained from World Bank and Global Economy. The result indicates that different variables such as import price, demand of goods, fiscal policy, monetary policy, deficit budget and production of goods affect the inflation positively and negatively in the world. Later on, high inflation affects the economic growth

negatively while it was also noted that below 3 to 7 percent inflation is beneficial for the economic growth of a country because with this growth the world producers produce more production which later on fit other machinery and solve the problem of the unemployment. So, inflation, economic growth and unemployment also correlated with one another and affect one another for economic growth of the country.

Inim et al. (2020) provided on the determinant of inflation using the Autoregressive Distributed Lag approach. The result shows that poor infrastructural development, exchange rate, political instability, corruption, and double taxation significantly stimulate inflation. The results showed a causal relationship between these other determining factors and inflation. The ARDL result showed a significant long-short run relationship. Adaramola and Dada (2020) the study findings indicated that inflation and real exchange rate significantly negatively impact economic growth, while the interest rate and money supply indicates a positive and significant impact on economic growth in Nigeria. The causality result also shows the unidirectional relationships between interest rate, exchange rate, government consumption expenditures and gross domestic product, while inflation and the degree of openness show no causal relationship with gross domestic product.

Gaps in the Literature

The empirical literature provides mixed evidence on impact of corruption, unemployment and inflation on economic growth (Onwubuariri et al., 2021). Also, others are on the relationship between economic growth, corruption, unemployment, and inflation (Obiekezie, 2022 Orewole, 2019). Some studies from Latin America, Europe, and Asia continent (Fatih et al., 2023; Rizki & Solihati, 2022). Also, some researches are conducted in the form of panel data framework (Dada et al., 2023; Ravi et al., 2023). This study is in form of the time series framework “impact of corruption, unemployment and inflation on economic growth in Nigeria”. There are methodological gaps in the literature concerning the study. Studies such as (Baklouti & Boujelbene, 2020) with time series relied on Ordinary Least Square and Panel Dataset employed Generalized Method of Moment and the Panel Autoregressive Distributed Lag ARDL model and Pooled Mean Group (PMG). This study uses the ARDL model to examine the impact of corruption, unemployment and inflation on economic growth

Methodology

Theoretical Framework

The theoretical framework is based on the Endogenous Theory of Growth. The key contribution that Romer made to the study of economic growth is the idea that technological progress is not an exogenous factor, but rather an endogenous outcome of the economic system. The confluence of endogenous growth theory made this an extremely exciting study and for a time, one of the key theoretical developments was the re-discovery of the “AK” growth model. The use of the word “re-discovery” is intentional and highlights an important feature of the growth literature: many of the insights of endogenous growth theory were

anticipated, often by insights primarily developed in the growth literature. Romer introduced a particular model known as the AK model.

In its simplest form, the AK model can be expressed as

$$Y_t = Ak_t \quad (1)$$

$$K_t = sY_t - \delta K_t \quad (2)$$

Where A is an exogenous and constant productivity parameter and s is an exogenous, constant investment rate. In this set-up, K is interpreted as labor or capital, but in Romer (1986) K was interpreted as knowledge.

Putting these equations together,

$$gY = \frac{Y_t}{Y_t} = sA - \delta \quad 3)$$

The growth rate of the economy is endogenously determined by fundamental parameters of the economic environment. In this example, a permanent increase in the investment rate S^+ will permanently raise the growth rate of the economy.

The AK insight (i.e., a linear differential equation of the form $K_t = sAK_t$ could generate an endogenous exponential growth rate) was the theoretical spark that lit a thousand lamps.

Model Specification

The study aims at examining impact of corruption, unemployment and inflation on economic growth in Nigeria from 2010Q1-2022Q4. The model used in this research is emerged from the previous research done by Uddin & Rahman (2022). The model captures impact of corruption, unemployment and inflation on economic growth in Nigeria. It is modified by substituting some independent variables in the model. The model captures impact of corruption, unemployment and inflation on economic growth and other control variables. The functional form of the model as:

$$GDP_t = f(COR, UNEMP, INF, GE, PS, RL) \quad (4)$$

Econometric equation for the equation above is specified as.

$$GDP_t = \beta_0 + \beta_1 COR_t + \beta_2 UNEMP_t + \beta_3 INF_t + \beta_4 GE_t + \beta_5 PS_t + \beta_6 RL_t + \mu_t \quad (5)$$

Where, GDP is Economic growth proxy as GDP , COR = Corruption, $UNEMP$ = Unemployment rate, INF = Inflation rate, GE = Government Effectiveness, PS = Political Stability, RL = Rule of Law, μ_t = Error term, β_0 = is intercept while β_1 to β_6 are scope coefficient of corruption, unemployment, inflation, government effectiveness, political stability and rule of law. The log transformed model for equation 5 is presented as equation 5'

$$LNGDP_t = \beta_0 + \beta_1 LNCOR_t + \beta_2 LNUNEMP_t + \beta_3 LNINF_t + \beta_4 GE_t + \beta_5 PS_t + \beta_6 RL_t + \mu_t \quad (6)$$

Autoregressive Distributed Lag (ARDL) Model

The Autoregressive Distributed Lag (ARDL) model is a widely used econometric technique for analyzing the long-run relationship between variables in a time series context. It combines both Autoregressive and Distributed Lag models to capture the dynamics and interactions between the variables. The ARDL model allows for the presence of unit roots and co integration among the variables, making it suitable for analyzing time series data that may exhibit non-stationarity. It is particularly useful when there are both integrated and stationary variables in the model. In the ARDL model, the dependent variable is regressed on its own lagged values, as well as the lagged values of the independent variables. The Autoregressive Distributed Lag (ARDL) for equations (5) is specified as:

$$\begin{aligned} \Delta LNGDP = & \beta_0 + \sum_{i=1}^p \gamma_1 \Delta LNGDP_{t-i} + \sum_{i=1}^p \gamma_2 \Delta LNCOR_{t-i} + \sum_{i=1}^p \gamma_3 \Delta LNUNEMP_{t-i} + \sum_{i=1}^p \gamma_4 \Delta LNINF_{t-i} \\ & + \sum_{t=1}^p \gamma_5 GE_{t-1} + \sum_{i=1}^p \gamma_6 \Delta PS_{t-1} \sum_{i=1}^p \gamma_7 \Delta RL_{t-1} + \beta_1 LNGDP_{t-1} + \beta_2 LNCOR_{t-1} \\ & + \beta_3 LNUNEMP_{t-1} + \beta_4 LNINF_{t-1} + \beta_5 GE_{t-1} + \beta_6 PS_{t-1} + \beta_7 RL_{t-1} + \mu_t \end{aligned} \quad (7)$$

The expression β_1 to β_7 on the right-hand side of equation donates the long-run relationship between the series while the expression γ_1 to γ_7 with summation notations are associated to the short-run dynamic of the series under consideration β_0 is the drift parameter and μ_t is the error term. The ECM introduces an error correction term, which represents the speed at which the variables adjust back to their long-run equilibrium after a shock or deviation. This error correction term captures the disequilibrium in the short run and incorporates it into the model. The ECM is especially useful for analyzing time series data with variables that are co integrated, as it allows for the examination of both short-term and long-term dynamics while accounting for disequilibrium in the short run. The error correction model for equations (11) is specified as:

$$\begin{aligned} \Delta LNGDP = & \beta_0 + \sum_{i=1}^p \gamma_1 \Delta LNGDP_{t-i} + \sum_{i=1}^p \gamma_2 \Delta LNCOR_{t-i} + \sum_{i=1}^p \gamma_3 \Delta LNUNEMP_{t-i} + \sum_{i=1}^p \gamma_4 \Delta LNINF_{t-i} \\ & + \sum_{t=1}^p \gamma_5 GE_{t-1} + \sum_{i=1}^p \gamma_6 \Delta PS_{t-1} \sum_{i=1}^p \gamma_7 \Delta RL_{t-1} + \alpha ECM_{t-1} + \mu_t \end{aligned} \quad (8)$$

Where αECM_{t-1} is the error correction term.

A multitude of diagnostic test is conducted to determine the robustness of the estimated model. These tests include serial correlation (Langrangian Multiplier (LM)) normality (Jarque-Bera) and Heteroskedasticity using ARCH. Furthermore, the technique known as cumulative (CUSUM) and cumulative sum of square (CUSUMSQ) are used to check the stability of the model of the regression.

Presentation, Analysis and Discussion of the Results

Stationarity Properties (Unit Root)

Any analysis involved with time-series data requires checking the order of integration. Because there is a higher possibility of a spurious outcome from the regression. Time series are stationary when the mean and variance of this series do not vary throughout the time range and the covariance between two observations differs not on the exact time when the variance is calculated rather barely on the difference between the two time periods. There are many ways to examine the stationarity of data. Among the various tests for a unit root, Phillips Perron and Augmented Dickey Fuller approaches have been widely used to test the stationary of time series variables. The optimum lag structure for PP and ADF tests are selected relied on the Akaike information criterion (AIC) and is an automatic selection. This test decision criterion is that the null hypothesis is rejected if the unit root test p-value is less than 5%. Otherwise, the null hypothesis cannot be rejected. The null hypothesis would be rejected if the variable had no unit root.

Table 1: Unit Root Testing

Variable	ADF				PP			
	AT LEVEL	PROB.	1 st DIFF.	PROB	AT LEVEL	PROB	1 st DIFF	PROB
LNGDP	-2.9160	0.1752	-2.6122	0.0100	-2.7811	0.2159	-2.4993	0.0134
LNCOR	-2.0521	0.5469	-4.2585	0.0056	-	0.5459	-3.3524	0.0649
					2.0540			
LNUNEMP	-0.1019	0.9919	-4.1448	0.0014	-1.1019	0.9919	-6.7897	0.0000
LNINF	-4.1595	0.0097	-3.5155	0.0000	-4.8921	0.0909	-3.2272	0.0000
GE	-	0.6521	-4.7284	0.0012	-3.7524	0.4364	-2.8258	0.0591
PS	0.0629	0.3881	-4.3062	0.0008	-1.6246	0.7549	-2.7137	0.0760
RL	-1.7659	0.3421	-3.4354	0.0122	-	0.3857	-3.0035	0.0353
	-5.1821				2.3688			

(*) indicates significant at the 10%, (**) significant at the 5% and (***) significant at the 1%
Source: Computed by the Authors

Table 1 shows the result for the unit root test. The output of unit root test indicates that gross domestic product (GDP), corruption (COR), unemployment (UNEMP), government effectiveness (GE), political stability (PS) are integrated of order one I(1) while inflation (INF) rate is integrated of zero I(0).

Cointegration Test

After providing stationary of series, co-integration analysis was conducted to the logarithmic series to measure the long-run (co-integration) relationship between variables, gross domestic product, corruption, unemployment, inflation, government effectiveness, political stability and rule of law. From Table 1, the result of the unit root test shows that the variables are of different order of integration. As a result, the appropriate co-integration technique is the one suggested by Pesaran et al. (2001) known as bound co-integration test.

Table 2: ARDL Bounds Test

Test Statistic	Value	K
F-statistic	22.55802	6
Critical Value Bounds		
Significance Level	I(0) Bound	I(1) Bound
10%	1.75	2.87
5%	2.04	3.24
2.5%	2.32	3.59
1%	2.66	4.05

Source: *Computed by the Authors*

In absolute terms, the F-statistics (22.55802) of the ARDL bounds are higher than the critical values of the I(0) and I(1) bounds at 5% significance level. Therefore, there is a long-run connection among the variables which concludes that there is a co-integration or equilibrium relationships among economic growth, corruption, unemployment, inflation, government effectiveness, political stability and rule of law in Nigeria.

The long-run Coefficient Results

The result of the long run coefficients of economic growth, corruption, unemployment, inflation, government effectiveness, political stability and rule of law are presented in Table 4.

Table 3: Results of Estimated Long run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNCOR	-37.53397	9.412904	-3.987501	0.0018
LNUNEMP	6.178661	1.554980	3.973466	0.0018
LNINF	16.61486	4.199663	3.956237	0.0019
GE	28.18575	7.426387	3.795351	0.0026
PS	-31.31053	7.926108	-3.950303	0.0019
RL	-18.88656	4.290111	-4.402347	0.0009

Source: *Computed by the Authors*

The result of the multiple regression analysis is shown in table 4. In the table shows that, corruption has a negative but statistically significant effect on economic growth. This means that one unit increase in corruption will lead to a decrease in GDP per capita by 37.53397%. In conformity with the findings of (Uddin & Rahman, 2022; Makar et al., 2023) found a significant negative effect of corruption on economic growth in the long run. The long-run relationship between unemployment and economic growth is positive and statistically significant, it indicates that 1% increase in unemployment will lead to 6.178661 increase in economic growth. This tends to suggest a short-term trade-off between unemployment and economic growth. Government spending can stimulate growth during high unemployment (Keynes, 1934). The positive relationship between unemployment and economic growth facilitates resource reallocation, innovation, and entrepreneurship. The findings is in conformity with the work of Cheema and Atta (2014) found a positive relationship between

unemployment and economic growth. On the contrary, (Shiferaw 2023) showed significant negative impact of unemployment on economic growth. The coefficient of inflation is positively and statistically significant in explaining economic growth. The results suggest that 1% increase in inflation will lead to 16.61486% increase in economic growth. Inflation can be associated with economic growth, but the relationship depends on the level of inflation. Low to moderate inflation can stimulate economic growth through increased money supply and credit. Increased production costs can lead to higher prices, stimulating investment and growth. This conform to the findings of (Uddin 2021; Uddin & Rahman, 2022) showed significant positive impact of inflation on economic growth in the long-run. This finding is not in agreement with (Khan, 2020) found significant negative impact of inflation on economic growth. The coefficient of government effectiveness is positively and statistically significant in explaining economic growth. This indicates that one unit rise in Government effectiveness will lead to surge in GDP per capita by 28.18575%. Based on the reviewed literature, it is expected that increase in government effectiveness can bring about increase in economic growth. This result is consistent with the findings of Uddin and Rahman (2022) which revealed significant positive impact of government effectiveness on economic growth. Contrary to the findings of Seyingbo and Adeniyi (2018) which found a negative relationship between government effectiveness and economic growth.

The result reveals that political stability has a negative and significant impact on economic growth. This suggests that one unit increase in political stability will lead to 31.31053% decrease in GDP per capita. This is because political stability can have a negative impact on economic growth through complacency, entrenchment of interest, lack of competition, stagnant policies, reduced accountability, limited economic reform and insufficient institutions. This finding agrees with (Awan et al. 2018; Uddin & Rahman, 2022) revealed significant negative impact of political stability on economic growth. The result showed that rule of law has a negative impact with economic growth and statistically significant. This implies that one unit increase in rule of law will lead to 18.88656% decrease in GDP per capita in Nigeria. The result suggests that countries with stronger rule of law tend to experience lower economic growth. This can be due to poor implementation or exploitation of special interests rather than serving the broader public good which often leads to overregulation, legal uncertainty, judicial inefficiency, regulatory capture and unreasonable contract enforcement. This study is consistent with the findings of (Khan et al., 2021).

Short-run Dynamics Results

The short-run dynamics results is presented in Table 4

Table 4: Error Correction Mode

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNCOR)	-8.680347	0.647287	-13.41036	0.0000
D(LNUNEMP)	3.457859	0.467887	7.390376	0.0000
D(LNINF)	5.059402	0.375093	13.48840	0.0000
D(GE)	5.728236	0.424576	13.49166	0.0000
D(PS)	3.783556	0.709511	5.332623	0.0002
D(RL)	-2.932009	0.746285	-3.928807	0.0020
CointEq(-1)*	-0.384690	0.024996	-15.39023	0.0000

Source: *Computed by the Authors*

The Error correction term in the model is negative and highly significant implying that economic growth responds to a long run stable equilibrium. It further confirms an existence of a long run relationship from an increase and decrease of corruption, unemployment, inflation, government effectiveness, political stability, rule of law to the economic growth. The ECM coefficient shows that about -0.384690% of the disequilibrium in the economy is corrected annually. In other words, -0.384690% of the equilibrium of the previous year's shock is adjusted back to the long-run equilibrium in the current year. In line with the result of the long run relationship between corruption, inflation, political stability, rule of law and economic growth, the short run result indicates that corruption has a negative relationship with economic growth and statistically significant. This implies that an increase in corruption will lead to a decrease in economic growth. Corruption can result in misallocation of public funds, reducing the effectiveness of government spending in the short-run. The result reveals that unemployment has a positive relationship with economic growth and statistically significant. The effect of GDP may not be felt immediately in the short run because it reflects the average economic output in a country over a specific period. Short term changes in economic growth might be influenced by various factors such as economic policies and global events or seasonal fluctuations. Furthermore, Inflation has a significant positive relationship with economic growth. This implies that an increase in inflation will lead to increase in economic growth. High inflation can reduce purchasing power, uncertainty, distort prices and increase cost in the short-run. The relationship between government effectiveness and economic growth in the short-run is positive and statistically significant, in line with the long-run relationship. Political stability has a positive relationship with economic growth and statistically significant. This implies that an increase in political stability will lead to increase in economic growth. This means that the effect of economic growth is felt in the short run. Also, rule of law has a significant negative relationship with economic growth.

Diagnostic Test

The validity of the estimated coefficients is examined based on the probability value. The results of the diagnostic tests are presented below.

Table 5: Results of the Residual Diagnostic test

	Probability
Breusch- Godfrey serial correlation LM test	0.8599
Normality test	0.5612
Heteroskedasticity	0.8920
Cusum and =Cusumsq	Stable

Source: Computed by the Authors

From the diagnostic tests, the null hypothesis states that the residuals have no serial correlation and no Heteroskedasticity effect in the residual as shown by the insignificant p-value of the tests. The Normal distribution test null hypothesis states that the population is normally distributed, this indicate that the data are normally distributed. From the result, both the CUSUM and CUSUM squares statistics are within the 5% significance level region.

Based on the empirical results, all the variables corruption, unemployment, inflation, political stability, government effectiveness and rule of law have negatively and positively impacted on economic growth. Though, unemployment is expected to be negative but due to short trade-off between unemployment and economic growth happens to be positive in this study. This study is contrary to the findings of (Shiferaw, 2023). Also, inflation is expected to have a negative impact on economic growth, but have a positive impact in this study which is not in agreement to the findings of (Khan, 2021). Inflation is positively and statistically significant in explaining economic growth. This is because moderate level of inflation can be a sign of a growing economy, as increased demand for goods and services drives up prices. Finally, based on reviewed literature, it is expected that political stability and rule of law should have a positive impact on economic growth. This study revealed that political stability and rule of law had a negative impact on economic growth. This negative impact can be as a result of poor implementation, judicial inefficiency, unreasonable contract enforcement, lack of completion, limited economic reform and insufficient institutions. This study is consistent with the findings of (Khan, 2021)

Conclusion and Recommendations

This empirical study examined the impact of corruption, unemployment, inflation, and economic growth, as well as several other variables such as government effectiveness, political stability, and rule of law in Nigeria for the period from 2010Q1 to 2022Q4. The study shows that corruption, unemployment, and inflation had a devastating impact on Nigeria's economic growth, perpetuating a cycle of stagnation and underdevelopment. To break this cycle and unlock Nigeria economic potential, it is imperative that government and policymakers should implement a comprehensive and multifaceted strategy that tackles

corruption, creates jobs and controls of inflation. Based on these findings, the study recommends that

1. The strengthened and empowerment of the ant-corruption agencies to carry out the fight against the endemic corrupt practices in Nigeria. For instance, the Independent Corrupt Practices Commission should properly investigate corrupt practices and to apportion appropriate sanctions. This could positively influence the cultural reorientation and moral character thereby providing redemption for national consciousness, patriotism and manifestation of civilized acts by the citizens. This would help curtail the negative effect of corruption on economic growth in the country.
2. Improve Labour Market Policies: Implement labour market policies that promote job creation, particularly for young people and women. This includes fostering an enabling business environment, reducing regulatory barriers, and encouraging investments in labor-intensive industries. Additionally, support entrepreneurship and facilitate access to finance for small businesses.
3. Promote Inclusive Economic Growth: Ensure that the economy is more diverse and less reliant on the oil industry. Encourage the expansion of industries with a strong potential for employment generation, such as manufacturing, services, and agriculture. Adopt measures to encourage the growth of small and medium-sized businesses since they are essential to inclusive growth.

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