Foreign Sector Indicators and Life Expectancy in Nigeria

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Abstract

The study empirically investigated the effect of foreign sector indicators on life expectancy in Nigeria. The foreign sector indicators include balance of payments, exchange rate, external reserves, foreign direct investment, and external debts for the period from 1981 to 2020. The study employed secondary data, which was gotten from the Central Bank of Nigeria's statistical bulletin. The employed data analysis techniques are the stationarity test, the autoregressive distributive lag technique, and the bounds cointegration test. The study revealed that an increase in gross domestic product per capita will improve life expectancy rates in the short run through the long run; an increase in external debts will reduce life expectancy in both the short run and long run; and an appreciation of the exchange rate will increase life expectancy in Nigeria in both the short run and long run. The study concludes that the external sector's performance has an unstable effect on life expectancy in Nigeria. The inherent instability is occasioned by the positive effect of gross domestic product and the exchange rate factor, while external debts have maintained their burden on the Nigerian economy. The studyrecommends amongst others that the positive effect of the balance of payments should be sustained, actions should be taken to ensure that surplus revenues are invested in ventures that will grow the economy, and the increase in Nigeria's external reserves should be sustained through deliberate efforts.

Key Words: Foreign sector indicators, Life expectancy, Nigeria, ARDL.

INTRODUCTION

A vibrant external sector is a key macroeconomic policy goal of every developed or emerging economy seeking global development. The importance of the external sector lies in the fact that every nation engages in trade, where payments and receipts are recorded. It is observed that the behaviour of the external sector is partly the outcome of the attitudes and policies of government from time to time towards this sector (Ogbonna, 2018). This is because the external sector is a network of economic transactions a country has with other countries. It reflects the economic transactions between the residents of an economy and the rest of the world. Nigeria's external sector reflects the economic transactions between the residents of Nigeria and the rest of the world. The external sector can be in equilibrium or disequilibrium (surplus or deficit). An ideal external sector is one that is stable and maintains equilibrium

over time. Equilibrium is achieved when external receipts and payments are equal. However, in more practical terms, such a perfect system hardly exists (CBN, 2013). The main instruments or indicators of foreign sector performance include the balance of payments, the exchange rate, external reserves, foreign direct investment, and the external debt profile of the country.

The term "life expectancy" refers to the number of years a person can expect to live on earth and is based on an estimate of the average age that members of a particular population group will be when they die. It is the average length of time a person is expected to live. The significant indicators of life expectancy include gender, genetics, access to health care, hygiene, diet and nutrition, exercise, lifestyle, and crime rates. According to the National Center for Health Statistics (2023), the current life expectancy for Nigeria in 2023 will be 55.75 years, a 0.57% increase from 2022. The life expectancy for Nigeria in 2022 was 55.44 years, a 0.57% increase from 2021.

CBN (2014) report, revealed that the inflation rate averaged 8.7% between 1980 and 1990. It then increased to 9.95 percent between 1991 and 2000. The inflation rate, which was 9.9 percent between 1991 and 2000, dramatically increased to 15.65 percent between 2001 and 2015. The cumulative effects were a sharp rise in the external debt service burden on an economy that had a significant deficit in financing its budget.

A number of empirical studies have also looked at the impact of external-sector aggregates on life expectancy. Miladinov (2020) establishes that a positive connection exists between socioeconomic conditions and life expectancy at birth. Greenidge & Stanford (2007), using panel data from 37 countries from 1994 to 2005, show that increases in health expenditure as a ratio of GDP per capita, literacy rate, and urbanization rate have a positive effect on life expectancy. While Roland, et al. (2011), show that the public provision of essential goods and services like health care leads to improved social outcomes, economic growth is directly responsible for the improvement of other life outcomes, and the rise in average income shows that people can purchase relevant social goods and services that enhance health and nutrition, lower mortality rates, and expand life expectancy. Evidently, there seems to be no consensus of opinion among the bulk of research conducted by scholars on the effect of external sector performance on life expectancy. Also, as the external sector gets wilder in Nigeria, the expected number of years an average Nigerian will live on earth has continued to hover below the world average.

This article is organized as follows; the abstract, the introductory part, the literature review which covers conceptual clarifications, theoretical review, and empirical review. The methodology which contains research design, model specification, and method of data analysis. This article was concluded with discussion of findings, conclusion, and recommendations.

LITERATURE REVIEW

2.1 Conceptual Clarifications

Foreign Sector: According to Akidi, et al. (2018), the external sector is one of the most important sectors in the growth and development process of any economy, be it developed or developing. It reflects the economic transactions between the residents of an economy and the rest of the world. External sector performance refers to the sector of a country's economy that interacts with the economies of other countries in the services and goods markets. This implies that the external sector encapsulates a country's economic transactions or activities with other countries' trading partners. External sector performance measures the performance of an economy with respect to the rest of the world, integrating external sector aggregates into actualizing growth and development in an economy. It expresses the behavior of a domestic economy's external sector components in relation to their trading counterparts in the rest of the world (Maurice, 2005).

Foreign Sector Indicators: The major indicators of the external sector are the balance of payments (BOP), exchange rate, external debt, external reserve, and foreign direct investment. Other indicators include foreign exchange earnings, imports and exports, the degree of openness, and foreign portfolio investment (Mordi, et al. 2010).. However, for the purpose of this study, the indicators of the external sector to be considered include the balance of payments, exchange rate, external debt, and foreign direct investment. These are further discussed below:

Balance of Payment: The balance of payments is a systematic record of the economic transactions of the residents of a country with the rest of the world during a given period of time." The record is so prepared as to provide meaning and measure to the various components of a country's external economic transactions. Thus, the aim is to present an account of all receipts and payments on account of goods exported, services rendered, and capital received by residents of a country, and goods imported, services received, and capital transferred by residents of the country. The main purpose of keeping these records is to know the international economic position of the country and to help the government reach decisions on monetary and fiscal policies on the one hand and trade and payment questions on the other (Ahuja, 2019).

Exchange Rate: Gbosi (1995), defines the exchange rate as the price of the domestic currency in terms of other currencies. The value of a country's currency depends on the state of the economy, the competitiveness and volume of exports, domestic production, and the quantum of foreign reserves. According to CBN (2011), the exchange rate is the price of one currency expressed in terms of another currency. The exchange rate is the price at which one country exchanges its currency for another. Jhingan (2010) defined the exchange rate as the rate at which one currency exchanges for another.

Foreign Direct Investment: Foreign direct investment is one of the key components of an open and efficient international economic system, as opposed to strictly regulated economies. Foreign direct investment is a direct investment made by an individual or company in another country into a production or business interest, either by directly establishing a business or expanding the operations of an existing business, or by buying a company in the target

nation. Foreign direct investment consists of mergers and acquisitions, building new facilities, and reinvesting profits earned from the operations of the foreign business (Adeleke, et al.2014).

External Debt: External debt refers to borrowings from institutions and agencies abroad. Ajie et al. (2014) defined it as the unpaid portion of resources acquired for developmental purposes and the balance of payment support. It is a debt owed by one country to institutions in other countries. According to Oluwofasa et al. (2012), "external debt" refers to the portion of a country's debt that was borrowed from foreign lenders. These include commercial banks, governments, or international financial institutions (Jhingan, 2015), who added that such loans are subscribed to by foreign governments, foreign institutions, foreign individuals, and international financial organizations.

External Reserve: External reserves give an indication of a country's credit worthiness and sustenance of external viability (CBN, 2013). External reserves, according to the IMF (2007), consist of official public sector foreign assets that are readily available to and controlled by the monetary authorities for direct financing of payment imbalances and directly regulating the magnitude of such imbalances through intervention in the exchange markets to affect the currency exchange rate and/or for other purposes

Life Expectancy: Life expectancy is defined as the average age that members of a particular population group will be when they die, or the number of years a person can expect to live on earth. It is the average length of time a person is expected to live. The life expectancy of a person can be measured through periodical or cohort life tables. Period life expectancy assumes mortality rates remain constant into the future, while cohort life expectancy uses projected changes in future mortality rates. The significant indicators of life expectancy include gender, genetics, access to health care, hygiene, diet and nutrition, exercise, lifestyle, and crime rates (Alamgir, et al. 2016)

2.2 Theoretical literature Review

2.2.1 The theory of open economy

External sector modelling starts with a simple open economy model, where total spending in the domestic economy is divided into domestic and foreign components.

$$Y = (C - C^*) + (I - I^*) + (G - G^*) + EXP \qquad (2.1)$$

Where C is domestic consumption of goods and services,

C* is consumption of foreign goods and services,

I is domestic investment in goods and service and

I* is investment in foreign goods and services.

G and G* are government purchases of domestic and foreign goods and services, respectively. EXP is exports of domestic goods and services. Further re-arrangement of the identity gives:

$$Y = C + G + I + EXP - (C^* + I^* + G^*) \qquad (2.2.)$$

(C *+I *+G*) represents total expenditure on imports (IMP), therefore, components of total output becomes:

Y =C + I +G + EXP– IMP   (2.3)

Interaction between EXP and IMP reflect the external sector performance, if EXP exceeds IMP, external sector is said to be in surplus, but where the reverse holds, external sector is said to be in deficit.

2.2.2 The Big Push Theory

The big push theory was propounded by Rosentein-Rodan in 1944. The theory is basically a model of how market failure can lead to a need for concerted economy-wide and probably public action to accelerate development (Todaro & Smith, 2011).

It states that there cannot be development without growth. For growth to take place in any external sector of an economy, the external sector that drives industrialization must be developed.The theory emphasizes that the development of the external sector will spur growth in the economy, bringing about increased output of goods and services within the domestic economy, leading to increased GDP per capita income. All these would lead to development in the economy as the condition of the populace improves.

However, this theory is of the opinion that coordination failure may make it difficult for industrialization in developing countries unless there is public intervention to overcome this.

The core argument is that coordination problems, in the context of increasing returns, create the possibility of multiple equilibria. A poor country can be caught below the equilibrium poverty line. Government intervention can potentially solve the coordination problem, push the economy into better equilibrium, and thereby allow a "take off "into sustained growth.

2.3 Empirical Literature Review

Ochinanwata, et al. (2020) examined the relationship between external trade and life expectancy among English-speaking West African countries (EsWACs). The study employed second-generation panel data econometric techniques to reveal that external trade has not improved life expectancy in EsWACs. This therefore infers that the impact of external trade on healthcare is negligible and has an infinitesimal effect on life expectancy in the subregion. The study recommends, inter alia, that countries should pay more attention to variables that improve human capital significantly, as they will help improve longevity.

Bese and Friday (2021) analyzed the direct effect of long-term and short-term debt on life expectancy in Turkey. The general tendency in the literature is to analyze the relationship between growth and life expectancy. According to the results of this study, a long-term relationship is confirmed between the variables. A causal relationship is found from life expectancy to long-term debt and short-term debt, but no causal relationship is found from long-term debt and short-term debt to life expectancy. Resulting from that, Turkey needed funding to fund its investments, and it currently does, and there has been a gap between investments and savings in Turkey.

Aladejare (2023), while looking at external debt from the perspectives of sustainability, liquidity, and solvency, assessed the impact of external debt on longevity in developing countries in West Africa from 1981 to 2020 after controlling for inflation and exchange rate variability. The study used cross-sectional augmented autoregressive distributed lag (CS-ARDL), dynamic common correlated effects (DCCE), and the Driscoll-Kraay (D-K) methods to show that unsustainable, illiquid, and insolvent external debt and macroeconomic volatility shorten longevity mainly in the long term in West African countries. Hence, longevity will decline when weak external debt management promotes poverty in developing countries.

Despite the significance of these studies in expanding the knowledge of scholars, the issue remains that the majority of these studies, if not all, are from developed countries, and there seems to be no consensus of opinion on the effect of external sector variables on life expectancy. Also, the reviewed literature failed to capture the main indicators of how the external sector performs, which have been addressed in this particular study. Thirdly, the methodology used in many of the panel data studies reviewed may not be appropriate for country-specific studies, and using such results for policymaking in Nigeria may result in policy suicide. Hence, a gap in the literature existed. To fill that gap, this study investigated the effect of external sector variables such as exchange rate, balance of payment, external reserves, foreign direct investment, and external debts on life expectancy in Nigeria for the period that spans 1981 to 2021.

METHODOLOGY

Research Design

The research design that this study will adopt is a quasi-experimental research design. To actualize the aim of this work, the researcher shall utilize both descriptive statistics and an econometric approach to investigate the impact of the external sector and the development of the Nigerian economy. The descriptive research design used is meant to measure only the outcome and establish a relationship if any associations exist between variables. While time series data obtained from secondary sources will be used in this research, E-views shall be used for data processing.

Model Specification

This research work adopted the modified version of Bese and Friday (2021) analyzed the direct effect of long-term and short-term debt on life expectancy in Turkey. The adopted model takes this form:

$$\ln (LEP)t = w_0 + w_1 \ln (FDI)t + w_2 \ln (EXTS)t + w_3 \ln (EXTL)t + u_t$$

where:

LEP is life of expectancy at birth for Turkey.

FDI is net inflows in current$. The variables are used in log form in the analysis.

EXTL is long-term external debt stocks in current$.

EXTS is short-term external debt stocks in current$.

The modified version of the equation will still have life expectancy (LER) as the dependent variable, while foreign direct investment, external reserve, balance of payment, external debt, and exchange rate will serve as explanatory variables.

The functional form of the models is presented as:

LER_t=F (BOP, EXR, EXTR, EXD, FDI)

The mathematical model is presented as thus:

$$LER_t = \alpha_0 + \beta_1 BOP_t + \beta_2 EXR_t + \beta_3 EXTR + \beta_4 EXD + \beta_5 FDI_t$$

The Econometrical model is expressed as thus:

$$LER_t = \alpha_0 + \beta_1 BOP_t + \beta_2 EXR_t + \beta_3 EXTR + \beta_4 EXD + \beta_5 FDI_t + \mu_t$$

Where:

LER = LIFE Expectancy Rate, BOP = Balance of Payment, EXR = Exchange Rate, EXTR = External Reserve, FDI = Foreign direct investment, EXD = External Debt.

The apriori expectation is that β_1, β_2, β_3, β_4, $\beta_{5>0}$

 Data Analysis

Stationarity Test
Summary Compilation of Stationarity Test (ADF) for Model One

Statistics / Variable	LEVEL			FIRST DIFFIRENCE			Comment
	T.Statistic	**5% Level**	**Prob**	**T.Statistic**	**5% Level**	**Prob**	
GDPPC	-0.331992	-2.938987	0.9107	-3.957299	-2.941145	0.0041	I(1)
EXTR	-3.731583	-3.529758	0.0318	-	-	-	I(0)
FDI	-2.928856	-3.533083	0.1653	-19.25509	-3.536601	0.0000	I(1)
EXR	2.149200	-2.938987	0.9999	-4.201560	-2.941145	0.0021	I(1)
EXTD	-2.571616	-3.529758	0.2946	-4.736893	-3.533083	0.0026	I(1)
BOP	-2.570324	3.529758	0.2951	-15.03931	-3.533083	0.0000	I(1)

Source: Extract from EViews 10 Output

Where:**PP** - Phillips-Perron test statistic. **While Prob** – Probability Level

Using the Phillips-Perron test statistic as compared with the Test Critical Value of 5%, we can observe that all variables in the model became stationary after they were subjected to first differencing, except external reserves. The external reserves were stationary at their level and reverted to their mean value. This, therefore, shows the absence of a unit root in the trend of

these external reserves and the presence of a stationary trend. This means that the variable behaves consistently and may result in reliable estimation when used at this level. Other variables show stationarity tendencies, as all their PP test statistics are greater than the various critical values at the 5% significance level on an absolute basis. Due to the nature of the observed unit root in all variables in the model except external reserves, the study proceeds to the stationarity test at the first difference in line with Box and Jenkins's (1970) procedure.

Bounds Cointegration Test:

Null Hypothesis: No long-run relationships exist

Test Statistic	Value	k
F-statistic	10.66121	6

Critical Value Bounds

Significance	I0 Bound	I1 Bound
10%	2.12	3.23
5%	2.45	3.61
2.5%	2.75	3.99
1%	3.15	4.43

Source authors compilation from EViews 10.05

Inferences drawn from table 3 show that the f-statistical value of 10.66121 is greater than the upper bound of the critical value of 3.61 at 5 per cent. Therefore, we reject the null hypothesis of no long-run relationship and accept the alternative hypotheses of the existence of a long-run relationship. By implication, there is a long-run cointegration among the series in the hypotheses, and in the long run, there will be convergence. Since there is a long-run association, we then proceed to ascertain their long-run and error correction regressions.

ARDL Long Run Result:

Long Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOG(EXTD)	-0.463163	0.162257	-2.854503	0.0084
LOG(EXTR)	-0.044028	0.267310	-0.164707	0.8704
LOG(FDI)	-0.117504	0.209609	-0.560583	0.5799
EXR	0.011684	0.003342	3.495871	0.0017
LOG(BOP)	0.300538	0.173823	1.728991	0.0957
LOG(GDPPC)	9.123728	1.227413	7.433299	0.0000
C	-	8.310213	-2.434935	0.0221

20.234828

Source authors compilation from EViews 10.05

The coefficient of external debt has a negative effect on life expectancy and is significant at 5 percent. Therefore, an increase in external debt will, all things being equal, amount to a -0.463163 reduction in life expectancy in Nigeria. This implies that, when the volume of debts contracted by the Nigerian federal or state governments increases, it will reduce the number of years a person is expected to stay here. The influence of external debts on life expectancy has a channel of transmission, and the sign of its impartation is consistent with the apriori expectation. According to economic theory, an increase in external debts will increase the burden on the domestic economy through debt service and other payments. In such a situation, government operations will be negatively affected, and that will have a reducing effect on investment and personal disposable income, which will in the long run reduce the number of years expected of an average Nigerian since he or she may not have the required money to take care of his or her health or the money to eat the appropriate quality and quantity of nutrients.

In the long run, the coefficient of the exchange rate has a positive influence on the dependent variable and is significant at 5 percent. Therefore, an appreciation of the exchange rate will, all things being equal, amount to a 0.011684 increase in life expectancy in Nigeria in the long run. This causation is not consistent with the economic expectation, and it could be caused by overreliance on domestic products since the prices of foreign goods and services are higher. Domestically produced goods and services in many remote communities in Nigeria have nothing to do with the exchange rate, and its continued increase will rather improve the number of years Nigerians expect to leave here on earth.

While other variables in the model have an insignificant effect on the dependent variable, the increase in gross domestic product per capita, which is the unit production per population in Nigeria, will amount to a 9.123728 increase in life expectancy in the long run. This causation is consistent with the a priori expectations of the study. By implication, an increase in productivity will increase savings and investment relations, and in such a situation, disposable income will increase, leading to an increase in life expectancy as people know they have money to take care of their medical bills and to afford their daily dietary requirements.

Included observations: 37

Cointegrating Form

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DLOG(EXTD)	-0.095636	0.027895	-3.428462	0.0020
DLOG(EXTR)	-0.009091	0.054602	-0.166497	0.8691
DLOG(FDI)	-0.024263	0.045272	-0.535932	0.5966
D(EXR)	0.004996	0.001614	3.094873	0.0047
DLOG(BOP)	0.010057	0.025910	0.388137	0.7011
DLOG(BOP(-1))	-0.057338	0.030172	-1.900342	0.0685

DLOG(GDPPC)	1.883907	0.421714	4.467262	0.0001
CointEq(-1)	-0.206484	0.041639	-4.958879	0.0000

Cointeq = LER - (-0.4632*LOG(EXTD) -0.0440*LOG(EXTR) - 0.1175

    *LOG(FDI) + 0.0117*EXR + 0.3005*LOG(BOP) + 9.1237*LOG(GDPPC)

    -20.2348)
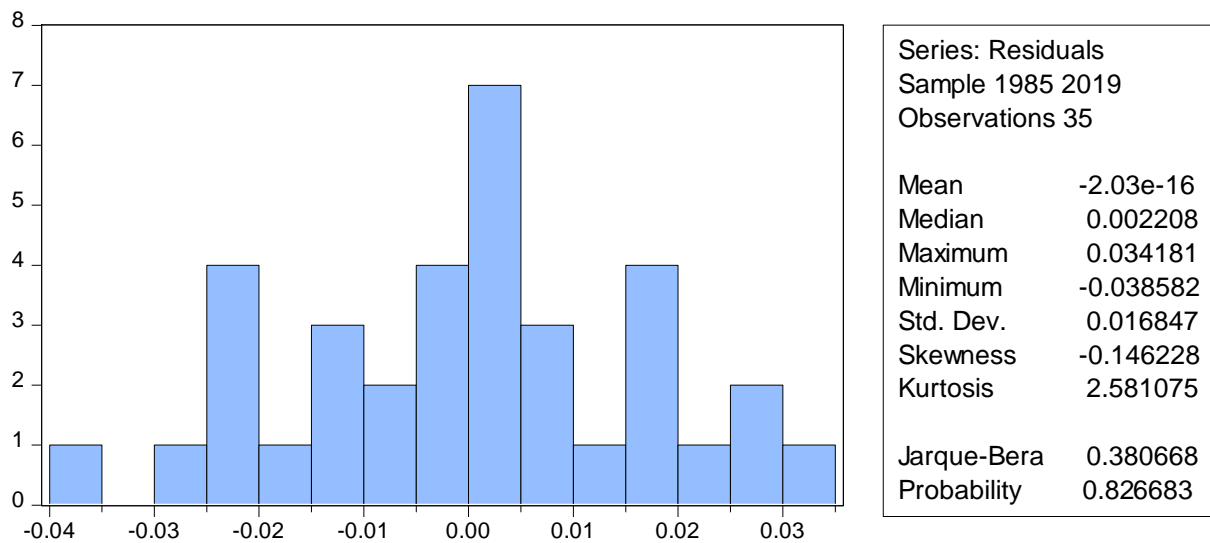
R-squared	0.898799	Mean dependent var	48.36127
Adjusted R-squared	0.888337	S.D. dependent var	2.945620
S.E. of regression	0.120115	Akaike info criterion	-1.158965
Sum squared resid	0.375116	Schwarz criterion	-0.680044
Log likelihood	32.44086	Hannan-Quinn criter.	-0.990123
F-statistic	21.62427	Durbin-Watson stat	1.853038
Prob(F-statistic)	0.000000		

*Note: p-values and any subsequent tests do not account for model
    selection.

Statistically, the R-square is 0.898799, while the R-square adjusted is 0.888337. Therefore, 89 percent of the variation in economic growth is associated with the interplay of variables in the model, while the remaining 11 percent is exogenously determined by variables captured in the error term. The Durbin-Watson statistic value of 1.853038 indicates the absence of first-order autocorrelation in the residual. While the F-statistic value of 21.62427 and its probability value of 0.000000 indicate that the entire model has a good fit, Econometrically, the coefficient of the error term appeared with the normal sign (-) and was statistically significant at 5 percent. Hence, the past disequilibrium will herald a long-run equilibrium at a speed of 0.206484 (21%) percent annually.

In the short run, the coefficient of external debt has a negative effect on the dependent variable and is significant at 5%. Therefore, a percentage increase in external debts will, all things being equal, amount to a -0.095636 decrease in life expectancy in Nigeria. This implies that, when the volume of external debts increases, it will cast a burden on the domestic economy through debt repayments and debt service plans, and this has the capacity to decrease the number of years an average Nigerian is expected to leave on earth because he or she may not have what it takes to meet his daily dietary intake. While other variables were insignificant, an increase in gross domestic product per capita will, all things being equal, amount to a 1.883907 improvement in life expectancy in Nigeria. This relationship is consistent with economic theory and explains the reason behind the marginal increase in life expectancy in Nigeria over the course of the study. By implication, when the unit production of Nigerians increases, it will increase their disposable income, and if that occurs, they will have all that is required to take care of their health, which is the major requirement for a long life.

Post estimation Test for Model One

	Series: Residuals
	Sample 1985 2019
	Observations 35
	Mean -2.03e-16
	Median 0.002208
	Maximum 0.034181
	Minimum -0.038582
	Std. Dev. 0.016847
	Skewness -0.146228
	Kurtosis 2.581075
	Jarque-Bera 0.380668
	Probability 0.826683

In testing the validity of regression, researcher check the normality of the regression residual. This very post estimation test will enable the researcher check if the estimated equation is in line with the basic assumption of the ordinary least square. Given the value of the Jarque-Bera statistic 0.380668 and its probability value of 0.826683, we assert that the residual are normally distributed.

Serial Correlation Result.
Breusch-Godfrey Serial Correlation LM Test:

F-statistic	1.020811	Prob. F(2,9)	0.3985
Obs*R-squared	6.471583	Prob. Chi-Square(2)	0.0393

In testing the serial independence of the error term, we employed Breusch- Godfrey Serial Correlation LM Test. Given the fact that the F- statistic value of 1.020811 and observed R-square value of 6.471583 are statistically insignificant with probability values of 0.3985 and 0.0393. we assert that there is no evidence of serial correlation in the residual of the study and we conclude that the estimated equation is BLUE.

iii. Homoskedasticity Test:

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.691393	Prob. F(23,11)	0.7811
Obs*R-squared	20.68882	Prob. Chi-Square(23)	0.6001
Scaled explained SS	1.615502	Prob. Chi-Square(23)	1.0000

In testing the equality of the variance of the residual as required in the basic classical least square assumption, we employed Heteroskedasticity Test: Breusch-Pagan-Godfrey. This test

is an opposite of homoskedasticity test and its valid to ascertain the validity of the classical least squares assumptions. Given the fact that the F statistic value of 0.691393, Obs*R-squared value of 20.68882 and Scaled explained SS value of 1.615502 and their probability values of 0.7811, 0.6001 and 1.0000. Hence, we conclude that, there is evidence of homoskedasticity in the residual and we conclude that the estimated equation is BLUE.
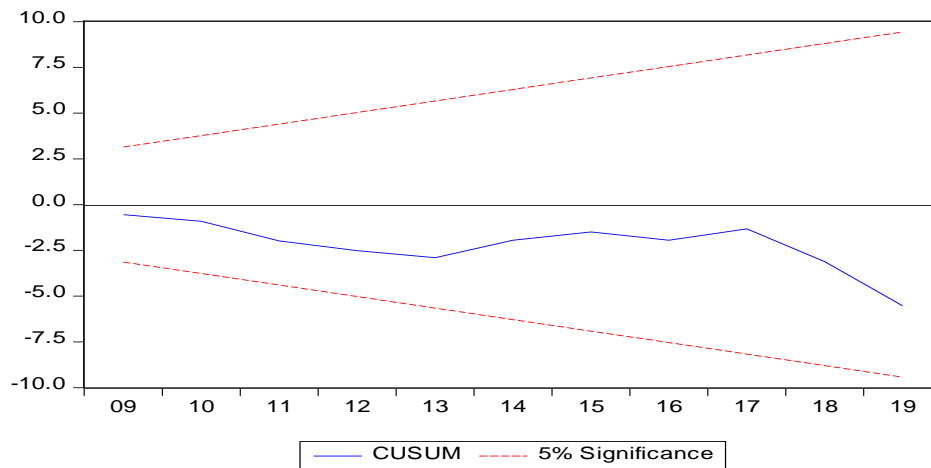
Discussion of findings

Drawing from the long-run and short-run ARDL models, the first result shows that external sector performance affected life expectancy (LER) positively in the long run through the exchange rate (EXR) and gross domestic product per capita (GDPPC) and negatively through external debts (EXTD) in both the short run and the long run. Hence, the null hypothesis, which states that external sector performance has no significant effect on the Nigerian economy, is hereby rejected while the alternative hypothesis is accepted. We assert that the performance of the external sector of the Nigerian economy has an unstable effect on life expectancy in Nigeria.

Conclusion/Recommendations

The study examined the effect of external sector performance on life expectancy in the Nigerian economy. The performance indicators include the exchange rate, external debts, and gross domestic product per capita for the period from 1981 to 2020. The study employed secondary data, which was gotten from the Central Bank of Nigeria's statistical bulletin. The employed data analysis techniques are the stationarity test, the autoregressive distributive lag technique, and the bounds cointegration test. Hence, the study revealed that: An increase in gross domestic product per capita will improve life expectancy rates in the short run and in the long run. An increase in external debt will reduce life expectancy in both the short and long run. An appreciation of the exchange rate will increase life expectancy in Nigeria in both the short and long run. This study concludes that the external sector's performance has an unstable effect on life expectancy in Nigeria. The inherent instability is occasioned by the positive effect of gross domestic product and the exchange rate factor, while external debts have maintained their burden on the Nigerian economy. In light of the observed findings, it is recommended that:

i. The positive effect of the balance of payments should be sustained, and actions should be taken to ensure that surplus revenues are invested in ventures that will grow the economy.

ii. The increase in Nigeria's external reserves should be sustained through deliberate efforts.

iii. The inflow of foreign direct investment should be channeled to sectors that will increase economic growth. This study adds to the existing literature by demonstrating that an increase in GDP per capita is the most effective channel through which external sector performance affects the Nigerian economy.

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