



Exploring the Effects of Macroeconomics Stability on Human Development in Nigeria (1981 – 2023)

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Abstract: This study explored the short and long-term effects of the fluctuations in macroeconomic stability on human development trajectories across Nigeria. Exchange rate, inflation rate, and interest rate were the key macroeconomic indicators while per capita income and educational outcomes were measures of human development. Particularly, the study examined the effects of Exchange rate, inflation rate, and interest rate on per capita income and on education outcome in Nigeria. Time series data spanning 1981 to 2023 were sourced from the Central Bank of Nigeria Statistical bulletin. Models were formulated in line with the objectives. Prediagnosis tests including the unit root and cointegration test were conducted to ascertain the stationarity status and long run cointegration of the series. The results of data analysis demonstrated a harsh macroeconomic environment characterized by high exchange rate, inflation rate, and interest rates, which did not foster economic growth and social outcomes. The results suggest that macroeconomic stability had no significant impact on per capita income levels and education outcome. However, only the lag value of per capita income had significant effects on per capita income ($PV= 0.003 < 0.05$). The study recommended comprehensive economic policies and macroeconomic effective management to create conducive macroeconomic environment for human development outcome. It was also recommended that economic managers should focus on strengthening macroeconomic frameworks that reduce instability and promote inclusive economic growth.

Keywords: ARDL Model, Exchange Rate, Human Development, Inflation Rate, Macroeconomic Stability.

1. INTRODUCTION

The levels of macroeconomic variables are yardsticks for economic performance. That Notwithstanding, Macroeconomic stability plays a critical role in fostering long-term human development by creating an environment conducive to sustainable economic growth, development and societal well-being. Key indicators essential to the macroeconomic framework are exchange rate, inflation rate, and interest rate. Tuaneh (2018) also identified exchange rate, interest rate and inflation rate as measures of macroeconomic stability. These variables also reflect the overall economic health of a nation. The effective management of these indicators do not only imply a stabilized economy but also influence broader socio-economic outcomes, particularly human development. The relationship between macroeconomic stability and human development is complex and

multifaceted, as inflation rates, exchange rates, and interest rates can significantly shape economic growth trajectory, affect the quality of life, influence level of income, and impact educational outcome. Tuaneh and Okidim (2019) reported that Nigeria like other developing countries traditionally experienced macroeconomic instability resulting from shocks on themselves or other macroeconomic indicators. This may alter human development index.

Humans are the most valuable assets in every economy (Ogunliye, *et al.*, 2017). To achieve its development, effective management is imperative. This can be achieved through adequate investment in human development. Human development involves enlarging people's choices, having opportunity to live a long and healthy life, access to education and having political freedom, human rights and self-respect.

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Human development index is a statistical composite index of life expectancy, education (mean years of schooling completed and expected years of schooling upon entering the education system), and per capita income indicators, which are used to rank countries into the four tiers of human development. Human capital refers to the abilities and skills of human resources and human capital development refers to the process of acquiring and increasing the number of persons who have the skills, education and experience that are critical for the economic development of the country (Adelakan, 2011). Improved human development outcomes are linked to stable macroeconomic conditions, as these macroeconomic conditions can ease higher investments in education, health, and infrastructure, and consequently improving the overall quality of life

Statement of the Problem

According to Tuaneh and Okidim (2019), Nigeria like other developing countries traditionally experienced macroeconomic instability. Currently, the Naira dollar exchange rate is over 1500 Naira per dollar as against 300 Naira per dollar 2 years ago. Interest rate is 35% as against the single digit advocated. It is worthy investigating the economic and social outcomes of the alarming rate of exchange rate, inflation rates and interest rates in Nigeria. Over the years, macroeconomic variables and human development have attracted significant attention from researchers, finance and development experts and have been debated extensively on the significance and direction of effects. Research have been carried out on macroeconomic variables and human capital developments with mixed findings. The study carried out by Temitope and Bola (2013), and Ewurum, *et al.* (2015), noted that human capital variable like health expenditure impacts positively on the macroeconomy like economic growth in Nigeria; Fabiyi, *et al.* (2018) also concluded that unemployment was negatively related to GDP, capital formation and export. Other studies concluded that public health expenditures and growth engenders good health outcomes like reduced mortality rate, growth of the economy (Okeke

2015; Oluwatoyin, *et al.* 2018, Onisanwa 2014), but no effect on education (Okeke, 2015).

Very few of these empirical studies in Nigeria employed time series and focused on the effects of macroeconomic variables on human development. In addition. Most of the studies did not consider the short run shocks on human capital development. This study, therefore, complements the existing empirical studies by using data from 2011–2023.

Objective of the Study

The broad objective of this study is to examine the effects of macroeconomics stability on human development in Nigeria. The and the specific objectives were to:

- i. ascertain the trend of the study variables.
- ii. examine the effects of macro-economic stability (inflation rate, interest rate and exchange rate) on income per capital.
- iii. examine the effects macro-economic stability (inflation rate, interest rate and exchange rate) on education.

Literature Review

Theoretical Underpinning

The monetarists are the twentieth century economist who criticize the model and lay emphasis on the importance of monetary policy especially money supply in stabilizing the economy. The monetarist led by Professor Milton-Friedman also regarded as the chief priest of the monetarist propounded in their discussions of the working of monetary policy, used a less-formal approach that allowed with to include multiple interest and wealth (or permanent income) no key variable in their discussions. They believed that there is a strong short run correlation between money, supply, GDP and price level. They also point that long-run economic growth is independent of monetary change, being determined by basic growth factors such as expanding productive capacity, population growth, advancing technology and natural resources.

In the long run it is opined that monetary change affects only the price level. Thus, stabilization policy should seek a growth rate of money that closely approximate the



long-run rate of growth of real productive capacity. It is a known phenomenon that the developing countries have abundant supply of labour and lack capital stock or saving that hold back their economic growth and development. Macroeconomic variable therefore become an important tools to influence level of saving, national, improvement in the welfare and wealth of its citizens and development of human capital.

Conceptual Framework

The study identified the following macroeconomic variables; inflation, exchange rate and interest rates.

Macroeconomic Stability

Tuaneh (2018) studied the interaction among macroeconomic stability indicators in Nigeria from 1981 to 2016 using the vector autoregression. Tuaneh (2018) reported in Tuaneh and Okidim (2019) that economic stability is a major macroeconomic goal for nations all over the world, regardless of their geographical location history, or political status, whether underdeveloped, developing or developed. This informs the desire for stable macroeconomic conditions. However, the dynamic behaviour of macroeconomic stability indicators particularly their; evolution, interaction and interdependence, obviously cause shocks among themselves, and by extension affects other variables including human development index.

Inflation

Inflation is a persistent increase in the general price level of goods and services within an economy over a given period usually one year. Inflation is defined as a generalized increase in the level of price sustained over a long period in an economy. That is, a persistent rise in the price levels of commodities and services, leading to a fall in the currency's purchasing power (Lipsey and Chrystal, 2015). This persistent rise affects the value of the domestic currency (Fatukasi, 2012).

The increase is not once or any price movement but a sustained increase over time. Several factors are responsible for inflation in Nigeria. (i) Excess aggregate demand leading to demand pull inflation. (ii) High cost of production resulting in limited supply and cost push inflation. Others include inefficient production,

marketing and distribution systems, imported, open and seasonal inflation. The imported inflation results from the transmission of inflation through internationally traded goods and services. The open inflation comes as a result of uninterrupted market mechanisms and seasonal inflation is associated with off season production during when supply constraint permeates the economy e.g. farming produce.

Naz *et al.* (2012), stated that inflation can disrupt business planning, nutrition, health and children's education.

Exchange Rate

Exchange rate is the price of one currency in terms of another. Exchange rate is the ratio between a unit of one currency and the amount of another currency for which that unit can be exchanged at a particular time (Ngerebo and Ibe, 2013). In other words, exchange rate is the price of one currency vis-à-vis another and is the number of units of a currency required to buy another currency (Mordi, 2006). Exchange rate of currency is the link between domestic and foreign prices of goods and services. Also, exchange rate can either appreciate or depreciate. Appreciation in the exchange rate occurs if less unit of domestic currency exchanges for a unit of foreign currency while depreciation in exchange rate occurs if more unit of domestic currency exchanges for a unit of foreign currency.

Interest Rate

Interest rate is the charge a borrower pays for the money lend to him for business or other transaction motives. Investors borrow money from banks and other financial institutions. The response of investment expenses changes keenly with interest rate which is at the mind of money-making analysis Acha and Acha, (2011). Interest rates are the other strong factors that affect financial policies. It facilitates investment if the high interest rate is applicable on savings. The negative influence of higher investment rate inhibits the macroeconomic effect of interest rate policy.

Empirical Framework

Macroeconomic Variables and Life expectancy



Ogbebor, Oguntodu and Oyinloye (2020) evaluated the impact of inflation on standard of living in Nigeria. The study proxied standard of living with human development index (HDI) between 1998 and 2017. The study employed the Auto Regressive Distributed Lag (ARDL) Model in addition to other critical diagnostic tests. The result of the study showed the existence of long run relationship between inflation and HDI. The result further revealed that inflation had a negative but statistically significant relationship with HDI in Nigeria within the study period. In a similar study carried out in Ghana, Osiakwan (2013), the result revealed that inflation had negative and significant effects on the standard of living in Ghana, and the adverse impact of inflation on standard of living increasingly worsened as inflation increases. In another study,

Okafor and Ogbonna (2017) studied the long run connection between the macroeconomic indices and human development index in Nigeria. The indices were human development index, government expenditure on education sector in Nigeria the outcome of VAR model depicts that HDI of the previous year (-1) was important but conveyed that the current value of EDU and HTH are most important factors. The study confirmed that human capital development in Nigeria are tare affected by the nature pattern and level of government spending in education and health as the model showed their significance and direct impact on the HDI.

Bourne *et al.* (2014) examined the influence of macroeconomic variables on health indices (murder and mortality) in Jamaica. The health indices were murder, mortality and ill health, while interest rate, inflation rate, money supply, and government expenditure where the macroeconomic variables. The ordinary least square regression was used for the analysis. The result showed a strong correlation between murder and health insurance coverage ($r = 0.960$; $P = 0.0001$), exchange rate and mortality ($r = 0.950$; $P = 0.0001$); a moderate relationship between mortality and health care utilization ($r = 0.654$; $P = 0.001$) and no bivariate relationship existed between murder and illness ($r = -0.411$, $P = 0.090$). The study recommended that government should

have a coherent policy in place to address these events, as every life lost through murder is important and represents a reduction in potential contribution to economic growth and development.

Momodu (2014) examined public health activities and macroeconomic variables in Nigeria (1970-2010). A test of causal relationships between government expenditure (GE) and other explanatory variables GDP, unemployment (UEM), inflation Rate (IFR) Balance of payment (BOP) was examined using the following statistical tools OLS, multiple regression analysis and Granger causality test. The time series data were found to be stationary in the short- run and a number of co-integrating equations were found to establish long-run relationships among the variables of study. The results showed that: Public health was more effective though marginally in stimulating economic growth (GDP) and more effective in reducing unemployment and enhancing BOP. 2. To maintain price stability, the public sector was significantly effective. Granger causality test showed causal flow from government expenditure (GE) to BOP, no causal flows to GDP, inflation rate (IFR) and unemployment (UER). The study recommended appropriate policy mix, improvement in quality of government expenditure, infrastructural development, regulated flow of FDI to real sector, emphasis on import of capital good, and focus on the agricultural sector among others.

Temitope and Bola (2013) explored the effects of health investment on economic growth in Nigeria, using data from 1977 to 2010. The variables were health investment, private investment, per capita income, and degree of openness. The vector error correction model was used. The findings showed a long run positive relationship between health expenditure and economic growth. Also, the short run result showed significant impact of health expenditure on the economic growth. It was concluded that investment in health would boost economic growth, if government invests more in this aspect of human capital.

Research Methodology

Research Design and Sources of Data



The study used the ex-post facto research design to examine macroeconomic variables dynamic and human development in Nigeria. The data for the study will be generated from the official publications of financial institutions such as CBN Statistical Bulletin, CBN Annual Report and Accounts. The data were extracted

from the soft copies of the named sources as made available by the authorities on their websites. The time frame is expected to cover forty-two (42) years from 1981 to 2023

Model Specification

$$Y_t = \theta_0 + \sum_{i=1}^p \beta_i \Delta Y_{t-i} + \sum_{i=0}^q \delta_i \Delta Y_{t-i} + \theta_{11} Y_{t-1} + \theta_{21} X_{t-1} + \varepsilon_{it}$$

Bounds Test Specification

$$\Delta PCI_t = \theta_0 + \sum_{i=1}^p \beta_i \Delta PCI_{t-i} + \sum_{i=0}^q \delta_i \Delta EXR_{t-i} + \sum_{i=0}^q \pi_i \Delta IFR_{t-i} + \sum_{i=0}^q \tau_i \Delta ITR_{t-i} + \theta_{11} PCI_{t-1} + \theta_{21} EXR_{t-1} + \theta_{31} IFR_{t-1} + \theta_{41} ITR_{t-1} + \varepsilon_{it}$$

$$\Delta EDU_t = \theta_0 + \sum_{i=1}^p \beta_i \Delta EDU_{t-i} + \sum_{i=0}^q \delta_i \Delta EXR_{t-i} + \sum_{i=0}^q \pi_i \Delta IFR_{t-i} + \sum_{i=0}^q \tau_i \Delta ITR_{t-i} + \theta_{11} EDU_{t-1} + \theta_{21} EXR_{t-1} + \theta_{31} IFR_{t-1} + \theta_{41} ITR_{t-1} + \varepsilon_{it}$$

Where;

PCI = Per Capita Income, Edu = Education, EXR = Exchange Rate, IFR = Inflation Rate, ITR = Interest Rate, θ_0 = intercepts, β_i , δ_i , π_i and τ_i are short run coefficients. θ_{11} , θ_{21} , θ_{31} , θ_{41} run coefficients, ε_{it} = error terms.

Results

In this segment, the various statistical tools stated earlier, study were used to analyse the data for the purpose of arriving at empirical evidence. The results are presented below:

Descriptive Statistics

The descriptive statistics of the variables were computed and presented on Table 1:

Table 1: Descriptive Statistics

Statistics	PCI	EDU	EXR	IFR	ITR
Mean	277648.7	1.580930	141.4323	18.80116	12.40326
Median	250500.8	1.480000	118.2100	12.88000	12.00000
Maximum	505429.1	2.210000	853.0000	72.84000	23.30000
Minimum	199311.3	1.230000	0.550000	5.390000	6.000000
Std. Dev.	75213.65	0.290310	163.0947	16.35376	4.006292
Skewness	0.722817	0.901381	2.250309	1.888727	0.776627
Kurtosis	2.864708	2.580944	9.694428	5.509840	3.598797
Jarque-Bera Probability	3.777124 0.151289	6.137459 0.046480	116.5854 0.000000	36.85182 0.000000	4.964989 0.083535
Sum	11938896	67.98000	6081.590	808.4500	533.3400
Sum Sq. Dev.	2.38E+11	3.539763	1117196.	11232.71	674.1157
Observations	43	43	43	43	43

Source: Researcher’s Computation (2024)

From Table 1, Per Capita Income (PCI), measured by real gross domestic product (RGDP) divided by population of persons, had mean value of ₦277,648.7, the maximum value of ₦505,429, minimum value of

₦199,311.3 with a standard deviation of ₦75,213.6. The Jarque-Bera statistics of 2876.33 and a probability value of 0.0000 suggested that the data for PCI was not normally distributed.

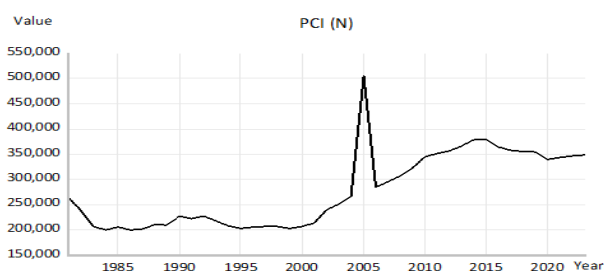


Education (EDU), measured by the ratio of government expenditure on education to real gross domestic product (RGDP), had mean value of 1.58%, maximum value of 2.21%, minimum value of 1.23% and standard deviation was 0.29%. The Jarque-Bera statistical value of 6.13 and a probability value of 0.05 suggested that the data for ED was not normally distributed.

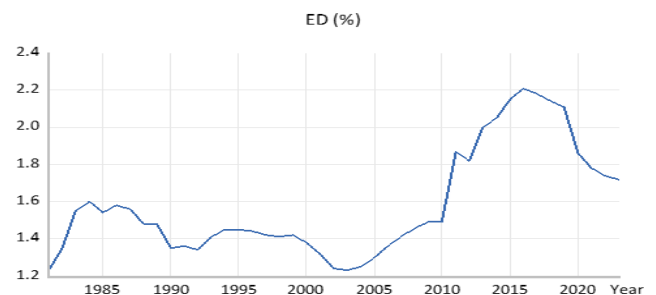
Exchange Rate (EXR) Inflation Rate (INF) and Interest Rate (INT) had mean values of 141.43 naira per dollar,

The trend of all the variables of the study were illustrated graphically and presented accordingly:

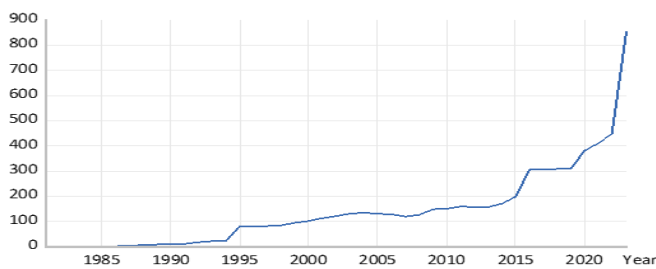
18.80% and 12.40 respectively. The maximum was 853.00, 72,84% and 23.30% respectively with a standard deviation of 163.09 Naira per dollar, 16% and 4 respectively. The Jaque-Bera statistics showed that both series were normally distributed.



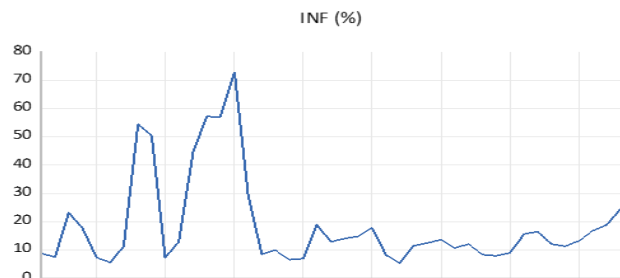
$$PCI = -9126964 + 4.697.6T$$



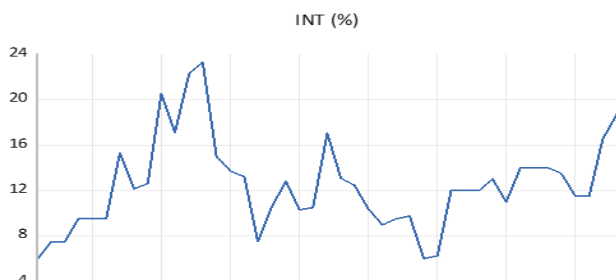
$$EDU = 28.09 + 0.01T$$



$$EXR = -21407.8 + 10.76T$$



$$EDU = 658.10 - 0.32.76T$$



$$PCI = -46.31 + 0.31T$$

Figure 1: Time Plots and Trend of the Study Variables

Simple Correlation



To assess the direction and magnitude of the relationship between each pair of the individual variables (EXR, INF, INT, PCI, and ED), the correlation coefficients were computed and presented in Table 3:

Table 3: Correlation Matrix

Correlation	ED	EXR	INF	INT	PCI
ED	1.000				
EXR	0.522 (000)	1.000			
INF	-0.260 (0.092)	-0.198 (0.202)	1.0000		
INT	0.058 (0.711)	0.188 (0.228)	(0.171)	1.0000	
PCI	-0.145 (0.355)	-0.004 (0.980)	(0.877)	(0.614)	1.0000

Source: Researcher's Computation (2024)

The correlation matrix in Table 3 showed the correlation coefficient on the direction and magnitude of relationship between the study variables. All the studied macroeconomic stability variables (exchange rate, Inflation rate and interest rate) showed negative but insignificant relationship with Per Capita Income. Of all the studied macroeconomic stability variables, only inflation rate had negative relationship with education. exchange rate showed positive and significant relationship education.

Unit Root Test

The group unit root was conducted to investigate the stationarity status of the all the study variables. The results are presented in Table 4.

Table 4: Unit Root Test

		With Constant			With Constant & Trend			Without Constant & Trend		
		t-Statistic	Prob.	Con - clusion	t-Statistic	Prob.	Con- clusion	t-Statistic	Prob.	Con- clusion
At Level										
PP	PCI	-1.878	0.339	No	-4.535	0.004	***	0.156	0.726	No
	EDU	-1.678	0.435	No	-1.818	0.678	No	0.276	0.761	No
	EXR	3.812	1.000	No	4.522	1.000	No	4.311	1.000	No
	INF	-2.945	0.049	**	-2.981	0.149	No	-1.632	0.096	*
	INT	-2.888	0.055	*	-2.860	0.186	No	0.032	0.687	No
At First Difference										
PP	d(PCI)	-12.968	0.000	***	-12.845	0.000	***	-12.161	0.000	***
	d(EDU)	-5.400	0.000	***	-5.350	0.000	***	-5.425	0.000	***
	d(EXR)	-3.131	0.026	**	-3.132	0.028	**	-3.597	0.008	***
	d(INF)	-10.201	0.000	***	-9.998	0.000	***	-10.470	0.000	***
	d(INT)	-7.642	0.000	***	-7.534	0.000	***	-7.666	0.000	***
At Level										
ADF	PCI	-1.312	0.615	No	-4.526	0.004	***	0.477	0.814	No
	EDU	-1.588	0.480	No	-2.584	0.289	No	-0.348	0.553	No
	EXR	1.017	0.996	No	1.496	1.000	No	0.585	0.838	No
	INF	-3.809	0.006	***	-2.936	0.164	No	-1.777	0.072	*
	INT	-2.877	0.057	*	-2.805	0.204	No	0.118	0.714	No
At First Difference										
ADF	d(PCI)	-6.772	0.000	***	-6.677	0.000	***	-6.772	0.000	***
	d(EDU)	-3.191	0.028	**	-3.121	0.116	**	-3.285	0.002	***
	d(EXR)	-3.206	0.025	**	-3.299	0.026	**	-3.939	0.000	***
	d(INF)	-2.846	0.056	**	-2.910	0.039	**	-3.789	0.007	***
	d(INT)	-3.276	0.023	**	-3.164	0.107	**	-3.259	0.002	***



Source: Researcher's Computation (2025)

Table 4, showed from Phillips-Perron test that all variables were nonstationary at levels except inflation Rate. The same result was obtained from the Augmented Dickey-Fuller test. However, both Phillips-Peron and Augmented Dicky-Fuller test showed that all variables were stationary at first difference (p -value <0.05), these results showed mixed order of integration.

4.2.5 Co-Integration Test

Since the unit root test showed mixed order of integration, the bounds test of cointegration was conducted and the result resented in Table 5 below:

Table 5: Bounds Test of Co-integration (PCI and EDU Models)

PCI model: Null hypothesis: No levels relationship. Test Statistic (F-statistic = 2.371

EDU model: Null hypothesis: No levels relationship. Test Statistic (F-statistic = 0.829

	10%		5%		1%	
	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)
Sample Size						
40	2.592	3.454	3.100	4.088	4.310	5.544
45	2.560	3.428	3.078	4.022	4.270	5.412
Asymptotic	2.370	3.200	2.790	3.670	3.650	4.660

* I(0) and I(1) are respectively the stationary and non-stationary bounds.

Source: Researcher's Computation (2024)

The F-statistics = 2.37 for the PCI model and 0.829 for the EDU model were less than the lower bounds of the critical values at 5% level of significance as shown in Table 5, therefore, the null hypothesis of no levels relationships were rejected. This means that the variables in this model had no long run relationship hence short run models are required.

Note that in the lag length selection, all information criteria selected lag 2 for both models.

PCI Model Estimation

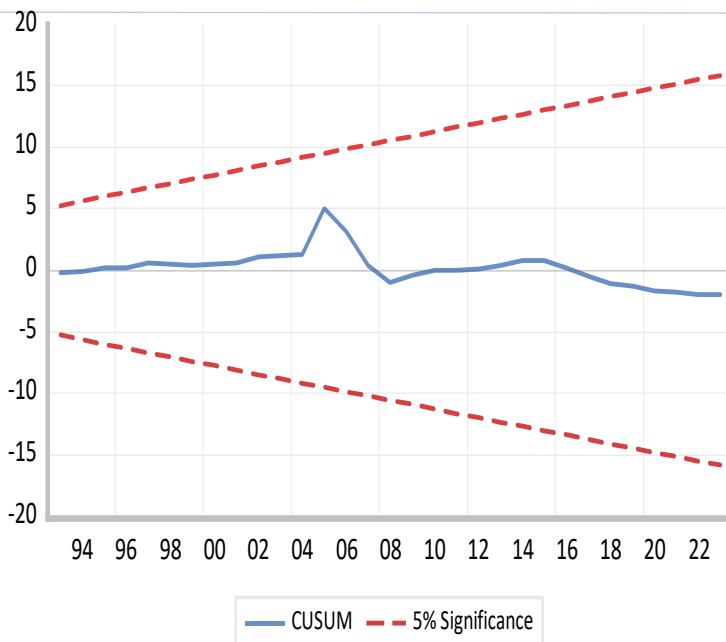
Table 6: Short Run ARDL Model showing the Effects of Exchange Rate, Inflation Rate, and Interest Rate on Per Capital Income

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7062.565	9666.903	0.730592	0.4705
D(PCI(-1))	-0.559405	0.170670	-3.277695	0.0026
D(PCI(-2))	-0.240619	0.171447	-1.403457	0.1704
D(EXR(-1))	-127.2257	386.6696	-0.329029	0.7443
D(EXR(-2))	15.96941	382.7117	0.041727	0.9670
D(IFR(-1))	50.96881	590.3781	0.086332	0.9318
D(IFR(-2))	11.20795	585.6850	0.019136	0.9849
D(ITR(-1))	34.37394	2592.566	0.013259	0.9895
D(ITR(-2))	-2007.233	2712.747	-0.739926	0.4649
R-squared	0.269964			

Source: Researcher's Computation (2024)

From Table 6, the R² result showed that 27% variation in Per Capita Income (PCI) was caused by the changes in exchange rate (EXR), inflation rate (INF), and interest rate (INT). The result further showed that only PCI lag 1 had significant effect on PCI.

The post estimation test conducted showed that; for the Serial correlation LM test, the F-Statistics was with 1.306 with a Probability value of 0.286 > 0.05 hence the hypothesis of no serial correlation could no be rejected, consequently, it was concluded that there was no serial correlation. Also, the stability test conducted showed that it lied within the 5% significant boundaries as shown in the graph below hence the model is stable.



PCI Model Estimation

Table 6: Short Run ARDL Model showing the Effects of Exchange Rate, Inflation Rate, and Interest Rate on Per Capital Income

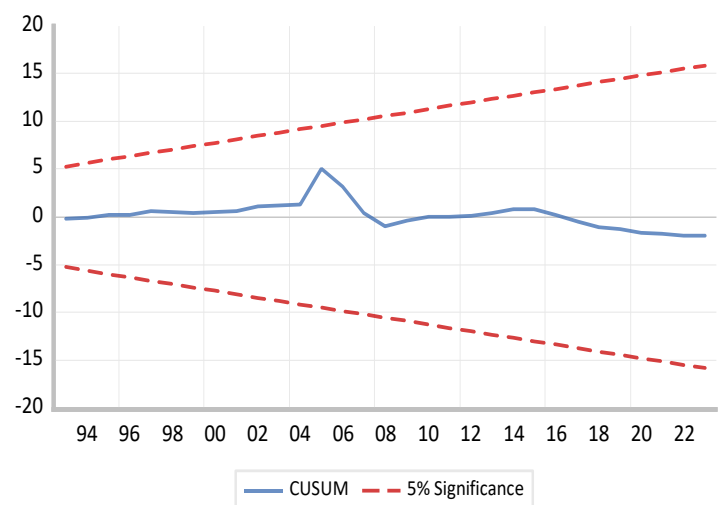
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EDU Model Estimation

Table 7: Short Run ARDL Model showing the Effects of Exchange Rate, Inflation Rate, and Interest Rate on Education.

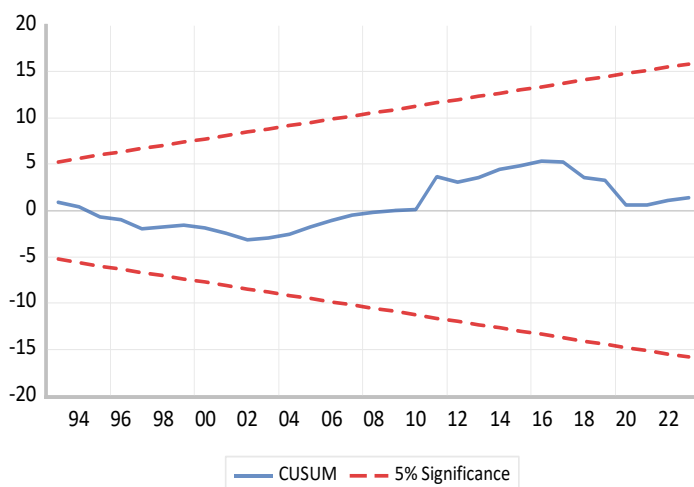
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.002898	0.018146	0.159713	0.8741
D(EDU(-1))	0.044839	0.159385	0.281327	0.7803
D(EDU(-2))	0.374488	0.156245	2.396793	0.0228
D(EXR(-1))	-0.000803	0.000714	-1.124656	0.2694
D(EXR(-2))	0.000522	0.000712	0.733613	0.4687
D(IFR(-1))	0.000838	0.001076	0.779302	0.4417
D(IFR(-2))	-0.000959	0.001071	-0.895474	0.3774
D(ITR(-1))	-0.000437	0.004704	-0.092848	0.9266
D(ITR(-2))	-0.003955	0.004977	-0.794549	0.4329
R-squared	0.205069			

Source: Researcher’s Computation (2024)



Table 7 showed that the R^2 is 0.205 indicating that 20.5% variation in in education expenditure is explained by the changes in exchange rate (EXR), inflation rate (INF), and interest rate (INT). The remaining 79.5% were explained by other variables not included in the model. Furthermore, the result from the t values showed that none of the explanatory variables had significant effect on education.

The post estimation diagnosis showed from the serial correlation LM test, the F-Statistics was with 1.573 with a Probability value of $0.224 > 0.05$. therefore, the null hypothesis of no serial correlation was not rejected, accordingly, it was concluded that there was no serial correlation. Additionally, the stability test was conducted and the result showed that it lied within the 5% significant boundaries as shown in the graph below therefore the model was concluded stable.



Conclusion

Though macroeconomic stability is an essential driver of human development outcome, the study showed a strong and positive correlation between exchange rates and education. The positive sign implied that the shocks leads to greater predictability in macroeconomic indicators enhancing access to education.

The study basically revealed that economic instability indicated through high inflation, fluctuating exchange

rates, and inconsistent interest rates are barriers to human development outcome. The findings have shown that macroeconomic stability contributes insignificantly to human development in the study area within the specified ped in both dimensions (per capita income and education). Per capita income was negatively impacted by an unstable economy, however, access to quality education also improves when inflation and interest rates are controlled.

Recommendation

Having identified the significant effects of macroeconomic stability in enhancing human development outcome, economic managers must prioritize sound economic policies that will minimize volatility in exchange rates, inflation, and interest rates. This research underscores that human development cannot thrive in an environment of economic instability. Long-term investments in education, along with measures to control inflation and stabilize the economy, are key to fostering sustainable and inclusive growth. Since countries experiencing significant economic fluctuations most often than none face stagnation in both income growth and educational advancements, reducing economic volatility should be a central goal of policymakers aiming to improve human development outcomes.

To enhance human development outcome, economic managers should focus on strengthening macroeconomic frameworks that reduce instability promote inclusive economic growth. This includes maintaining low and stable inflation, fostering exchange rate stability, and setting interest rates at levels that encourage investment and economic growth.

The federal governments and international organizations should establish robust monitoring and evaluation systems. This is needed to assess the impact of macroeconomic policies on human development outcomes and would allow the economic managers to evaluate outcome based on real-time data, hence track the progress over time, and ensure that macroeconomic stability is directly contributing to measurable



improvements in educational outcome and income growth.

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