CURRENCY REDESIGN ATTRIBUTES AND ECONOMIC PERFORMANCE IN NIGERIA (1960 – 2023)

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Abstract: *This study examined the effect of currency redesign attributes on economic performance in Nigeria, focusing on the roles of deposit growth rate (DGR), liquidity mop-up ratio (LMR), and consumer price index (CPI) from 1960 to 2023. Adopting an ex-post-facto research design, the study sampled ten currency redesign periods through stratified and random sampling techniques. Secondary data were sourced and analysed using normality tests, panel unit root tests, multicollinearity diagnostics, and Generalised Linear Model (GLM) regression. The model specified real gross domestic product (RGDP) and real exchange rate (RER) as proxies for economic performance. Results showed that all three independent variables: DGR, LMR, and CPI, exhibited negative relationships with RGDP, but none were statistically significant (p > 0.05). However, when RER was used as a control variable, only DGR showed a statistically significant negative effect (p = 0.0269), implying that rising deposit growth rate during currency redesign periods adversely affected exchange rate stability. The*

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value relevance of the study was that currency redesign policies are theoretically sound for macroeconomic stability, their practical implementation may result in unintended economic disruptions due to poor planning, financial strain, and systemic inefficiencies. The study concludes that the economic impact of Nigeria's currency redesign efforts has been largely negative and statistically weak. It recommends improved policy design, phased implementation, and ongoing evaluation mechanisms for future monetary reforms.

1. Introduction

Nigeria's experience with currency redesign presents multifaceted challenges that influence its economic performance. A critical concern lies in the substantial financial costs associated with redesign initiatives, including the design, printing, distribution of new notes, ATM upgrades, recalibration of cash-handling machines, and integration with existing banking software. These inflict significant financial strain on the economy, particularly on commercial banks and other financial institutions, by increasing operational costs and potentially exacerbating inflationary pressures (Adamu & Afolayan, 2022). The situation was further worsened when the newly introduced currency was not adequately circulated, leading to liquidity constraints and disruptions in economic activities, especially among vulnerable groups such as small business owners and daily wage earners.

The problem of currency hoarding continues to undermine Nigeria's financial system, as large volumes of cash remain outside formal banking structures. This limits financial inclusion, narrows the tax base, and supports illicit activities such as money laundering and corruption. The absence of adequate monetary oversight due to poor currency circulation hampers economic stability, weakens the effectiveness of monetary policy, and obstructs national development. Chukwu and Nwafor (2019) further argue that Nigeria's broader economic performance is already challenged by deteriorating infrastructure and technological backwardness, which complicates the effectiveness of currency reforms. Although Nigeria's GDP stood at ₦1,795.46 trillion ($1.277 trillion) by the end of 2023, the growth rate of 2.51% in the second quarter of that year, down from 3.54% in the same period in 2022, suggests that current economic conditions may be deteriorating. This slowdown may be partly attributed to the unintended consequences of aggressive monetary interventions like currency redesign. Petter (2023) notes that interventions can create additional instability in developing economies where systemic weaknesses already exist.

The Nigerian experience with currency redesign raises critical questions about the underlying causes of economic hardship and the policy rationale behind such initiatives. There is a pressing need for empirical investigation into the relationship between currency redesign attributes and economic performance in Nigeria. The advent of currency redesign in Africa traces its origins to a shared colonial legacy. Countries such as Nigeria, Ghana, Sierra Leone, and Gambia initially used a common currency issued by the West African Currency Board (WACB). This system featured denominations such as the one-pound note and shilling coins. However, the post-colonial era marked the beginning of sovereign currency reforms and redesigns across the region, as countries sought monetary autonomy and economic identity (Aribaba et al., 2024).

In Nigeria, mediums of exchange existed prior to colonialism, including barter and the use of cowries. Currency formalisation gained prominence following the introduction of colonial legal tender in 1880, when British colonial law established the use of shillings and pence as the official currency in British West Africa. The Bank of England managed the minting and distribution of coins until the formation of the WACB in 1912. The Central Bank of Nigeria (CBN) was established in March 1958, and by 1959, it issued Nigeria's first indigenous currency, marking the end of the WACB era. In 1962, the currency was redesigned to reflect Nigeria's status as a republic, bearing the inscription "Federation of Nigeria". This inscription was later modified in 1968, following the misuse of currency during the Nigerian Civil War. A major currency transformation occurred in 1973 when Nigeria adopted the Naira and Kobo system, transitioning from the British Pound. The ₦20 note, introduced in 1978, was symbolic, commemorating the late General Murtala Muhammed. Subsequent redesigns occurred in 1979, and again in 1984, when the colours of the naira notes were changed as part of broader economic and anti-corruption reforms.

As Nigeria's economy expanded, new higher denominations were introduced: ₦100 (1999), ₦200 (2000), ₦500 (2001), and ₦1000 (2005). In 2007, economic reforms led to the reintroduction of coins, aimed at improving transaction efficiency for smaller denominations. One of the most notable instances of currency redesign occurred in 2022, when the CBN announced the withdrawal of old ₦200, ₦500, and ₦1000 notes, with the reintroduction of newly designed notes starting December 15, 2022 (CBN, 2023). This policy was driven by concerns over inflation, corruption, and the vast amounts of cash circulating outside the banking system. According to the FSDH (2023), as of September 2022, ₦2.73 trillion out of ₦3.23 trillion in circulation was held outside the formal banking sector. This phenomenon not only undermined financial inclusion but also contributed to Nigeria's persistently high inflation,

exceeding 20% in 2022, and weakened monetary policy effectiveness (National Bureau of Statistics, 2022; IMF, 2022).

Currency redesign has been implemented successfully in various countries such as the United States, the United Kingdom, Canada, China, Nicaragua, Taiwan, Vietnam, and, more recently, India, with commendable outcomes. These countries have reported achievements in enhancing currency security attributes, curbing inflation, and combating corruption, thereby improving overall macroeconomic stability. Despite these international successes, Nigeria's experience with currency redesign appears to diverge significantly, as it has been accompanied by economic hardship, including liquidity shortages, inflationary pressures, and disruptions in business and daily transactions. This paradox raises a critical research concern: why has a policy that is generally effective elsewhere resulted in adverse economic consequences in Nigeria? The discrepancy suggests that contextual, structural, and institutional factors may mediate the outcomes of currency redesign attributes on economic performance in Nigeria. The study was grounded in a hybrid theoretical framework, combining the Structuralist-Monetarist theory. The theory highlights the interaction between monetary policy, institutional structure, and inflation in developing economies. The theory offers a comprehensive lens for analysing the macroeconomic implications of currency redesign attributes on economic performance in Nigeria.

1.1 Research Hypothesis

1. There is no significant relationship between the deposit growth rate and economic performance in Nigeria.

2. There is no significant relationship between the liquidity mop-up ratio and economic performance in Nigeria.

3. There is no significant relationship between the consumer price index and economic performance in Nigeria.

2. Theoretical Review

2.1 The Structuralist-Monetarist (Hybrid) Theory

The theory was developed by Taslim in 1982. It proposed that the monetarist theory of inflation lacks consideration of structural or cost-push elements that can contribute to inflation. Monetarists attribute cost increases to fluctuations in the

money supply, especially when monetary authorities adopt an accommodating stance to prevent declines in real output. However, monetarist models overlook cost-push inflation, which can be a significant concern in small open developing nations where rising foreign prices can significantly drive domestic inflation. To address this gap, scholars have developed models that combine monetarist and structuralist aspects, directly incorporating cost-push factors into the monetarist framework. Various strategies have been employed, such as integrating the fiscal deficit as the initial driving force and propagation mechanism in the inflation process or incorporating structuralist considerations into monetarist models (Chibber, 1992; Jha, 1994). Other approaches involve including money supply dynamics in structuralist models (Aghevli & Khan, 1978; Agenor & Montiel, 1996). These theoretical perspectives and prior empirical investigations influenced the selection of variables in this study.

2.2   Empirical Review

Aribaba et al. (2024) examine the effect of legal tender redesign policies on economic growth in Nigeria. It employed a causal-comparative research design, collecting data over ten years from 2013 to 2022, with quarterly observations specifically chosen to capture the recent challenges posed to the Nigerian economy during the period of legal tender redesign. The data was sourced from the National Bureau of Statistics (2023) report. The statistical methods used included normality testing, descriptive statistics, and OLS regression analysis to test the research hypotheses. Data analysis was conducted using E-views 10.0 statistical software. The findings revealed that the Kolmogorov-Smirnov and Shapiro-Wilk tests indicated a normal distribution for all variables except the inflation rate and GDP. The study's findings led to the rejection of all hypotheses, including INFR (t: 0.368060; p=0.7150>0.05), CPS (t: -0.696308; p=0.4907>0.05), and COB (t: 1.972444; p=0.0563≥0.05). Consequently, the study concludes that the redesign of legal tender is only one aspect of economic policy. This suggests that redesigning legal tender notes to coincide with key national celebrations or anniversaries can boost feelings of patriotism and unity, promoting positive sentiment and, in turn, fostering economic growth. The previous study is similar to the current study on the statistical tool employed. What makes the previous study different from the current study was the methodology at which the study was used, research design and the sample procedure used.

Nana (2024) examines the currency relations between European Union (EU) members and the CFA franc zone, providing empirical support for the dependency

theory. The study highlights that the CFA franc monetary system primarily serves the interests of EU members, particularly France. Consequently, CFA franc zone countries face ongoing structural deficits as they rely on France and the EU to set interest rates and determine liquidity levels in their economies. The paper traces the origin of the CFA franc from its inception as the currency of the French Colonies of Africa to its current position within a hierarchical system characterized by opaque operations accounts and secretive deals. It reviews arguments for and against the CFA franc monetary system, demonstrating that attributing the low inflation and sustained growth of CFA franc zone members in the first decade after "independence" to the system is misguided. The study shows that the monetary system hampers intra-regional trade and makes member countries vulnerable to external shocks, as they cannot effectively formulate and coordinate fiscal policies to mitigate these shocks. However, it cautions that hastily abandoning the CFA franc to satisfy emotional urges for revenge would be counterproductive. The paper suggests that CFA franc countries should consider three factors before deciding whether to abandon the currency: the importance of a monetary union, the rationale for pegging their exchange rates to an external reference or anchor currency, and whether the euro is the most suitable reference or anchor currency. The previous study is related to the current study on the literature engaged. What makes the previous study different from the current study was the design and location at which the study was carried out.

Kparobo and Aroghene (2023) investigated the impact of currency redesign compliance in the Nigerian economy. They utilised government support and individual technological readiness as independent variables, with currency redesign compliance as the dependent variable. Primary data collection involved administering a structured five-point Likert scale questionnaire to 133 residents of Abraka in Ethiope East Local Government Area, Delta State, over two months. Data analysis employed percentages, frequencies, tables, means, and charts, supplemented by Pearson Product-Moment Correlation Coefficient (PPMCC) and coefficient of determination to test hypotheses. The study's findings led to the rejection of the null hypothesis, indicating a significant influence of the independent variables on the dependent variable. Recommendations included government intervention to streamline channels that could impede the successful implementation of currency issuance/redesign and prioritizing economic conditions before introducing new policies. The previous study is similar to the current study on the scope covered. What makes the previous study different from the current study was the statistical tool and research design adopted.

Lee et al. (2021) explore the essential considerations in designing Central Bank Digital Currencies (CBDCs) to effectively balance benefits and risks, presenting global best practices. Using China's CBDC as a case study, the paper examines the concept of two-tier or multi-tier ledger designs and proposes ten factors that facilitate widespread adoption and successful implementation. This design approach allows central banks to manage process flows and prioritize monitoring and control while mitigating risks associated with over-centralization. The study concludes that CBDCs will become a cornerstone of the future digital economy, providing countries adept with this technology a competitive edge. It emphasizes the importance of ongoing regulatory review and adaptation to international dynamics for successful CBDC implementation. The prior study is similar to the current study on the literature reviewed. What made the prior study different from the current study was the methodology at which the study was used, research design, the sample procedure and statistical technique used.

Ukpabi et al. (2021) examined the impact of private-sector credit on Nigeria's economic growth from 1990 to 2020. In their study, credit to the private sector (CPS) was treated as an exogenous variable, while real gross domestic product (RGDP) was considered an endogenous variable. They employed the autoregressive distributed lag (ARDL) bounds test and utilized the E-views12 statistical package for their analysis. The findings revealed a positive and statistically significant effect of private sector credit on real gross domestic product in Nigeria, demonstrating both short-term and long-term relationships. Based on these results, the study recommended that monetary authorities promote monetary policy instruments that facilitate sector-specific credit allocation to the private sector to support sustainable economic growth. Furthermore, the Central Bank of Nigeria was advised to consider implementing a discounted e-wallet system tailored for administering private sector credit, leveraging the benefits of the e-naira framework to enhance access to and utilisation of credit within the sector, particularly in the real sector. The earlier study is similar to the current study in the scope covered. What makes the previous study different from the current study was the methodology at which the study was used, research design, sample procedure, and statistical method used.

3. Methodology

The research design used for this study was an ex-post-facto research design. The population of this study consists ten (10) number of times Nigeria redesigned its currencies. The sample size for the study was ten (10) times the Nigerian government redesigns the currencies, and the sampling techniques used were stratified and random sampling techniques to select the periods from 1960 - 2023. The justification for choosing the period was purposive and due to the availability of the data electronically. The sources of data collection for the study were secondary sources. The methods of data analysis used are the normality test, panel data test, and generalized linear regression.

3.1   Model Specification

The simple linear regression model was used to test the hypothesis proposed for this study. Based on the formulated hypothesis, the following model was adapted from the work of Aribaba et al. (2023). $RGDP_t = \beta_0 + \beta_{1t} + DMS, \beta_{2t} + DSS, \beta_{3t} + CMS, \beta_{4t} + DTS + \varepsilon_t$....*(eqn. 1)*.

The model was modified thus; $RGDP_t = \beta_0 + \beta_{1t} (DGR) + \beta_{2t} (LMR) + \beta_{3t} (CPI) + \varepsilon_t$ *.…..(eqn. 2)*

The study specified the below model as a control variable in econometric form as follows:

$RER_t = \beta_0 + \beta_{1t} (DGR) + \beta_{2t} (LMR) + \beta_{3t} (CPI) + \varepsilon_t$ ……….…………………*(eqn. 3)*

Where:

EP = Economic Performance (Dependent Variable)
RGDP = Real Gross Domestic Product (Proxy to Economic Performance)
RER = Real Exchange Rate (Control Variable)
DGR = Deposit Growth Rate
LMR = Liquidity Mop-up Ratio
CPI = Consumer Price Index
β_0 = intercept
β_{1-3} = coefficient of explanatory variables
$_t$ = Period understudy
ε_t = Stochastic error term to represent other explanatory variables not mentioned in the research.

The a priori expectation with respect to sign: $\beta_1 > 0 : \beta_2 > 0 : \beta_3 > 0$: denotes the formulated null hypothesis.

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Table 1. Measurement of Variables

S/N	Variables	Acronyms	Measurement	Sources
Dependent Variables				
1	Economic Performance	RGDP	Real gross domestic product is calculated by adjusting nominal GDP for inflation. RER measures the relative price of foreign goods in terms of domestic goods.	Ukpabi et al. (2021)
		RER		
Independent Variables				
1	Deposit Growth Rate	DGR	$(TD_t - TDt{-}1/TDt{-}1)\times100$	International Monetary Fund (2023)
2	Liquidity mop-up ratio	LMR	Liquid Assets/Net Demand and Time Liabilities × 100	Mishkin, F. S. (2016)
3	Consumer Price Index	CPI	$(CPIt{-}CPIt{-}1/CPIt{-}1)\times100$	Dornbusch, R., Fischer, S., and Startz, R. (2010)

*Source: Researcher's Compilation **(2025)***

Table 2. Apriori Expectation

Explanatory Variables	Symbols	Hypothesis	Expected Sign
Economic Performance	RGDP RER	Real Gross Domestic Product Real Exchange Rate	Dependent Variable
Deposit Growth Rate	DGR	There is no significant relationship between the deposit growth rate and economic performance in Nigeria	+
Liquidity Mop-up Ratio	LMR	There is no significant relationship between the liquidity mop-up ratio and economic performance in Nigeria	+
Consumer Price Index	CPI	There is no significant relationship between the consumer price index and economic performance in Nigeria	+

Source: *Researcher's Compilation **(2025)***

4. Results and Discussion

Normality Test

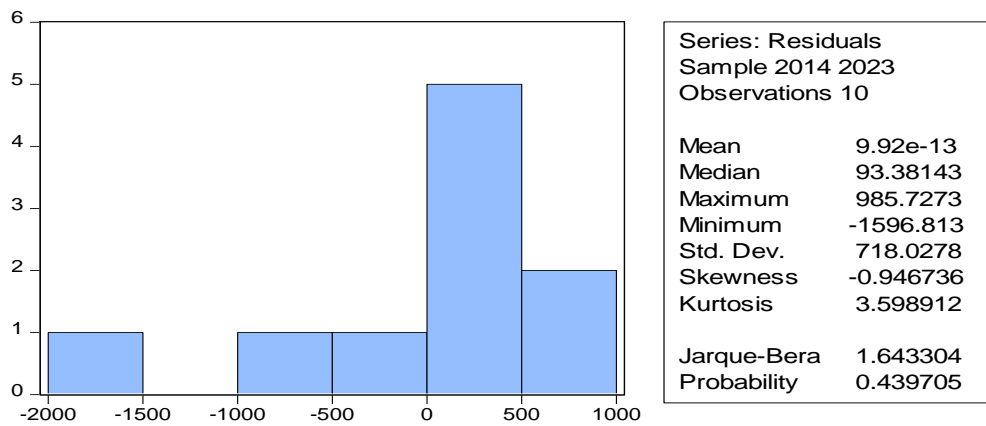| Series: Residuals	
Sample 2014 2023	
Observations 10	
Mean	9.92e-13
Median	93.38143
Maximum	985.7273
Minimum	-1596.813
Std. Dev.	718.0278
Skewness	-0.946736
Kurtosis	3.598912
Jarque-Bera	1.643304
Probability	0.439705

Figure 1. Processed Results from E-views 10

A normality test was conducted to determine if the independent and dependent variables are normally distributed. If the p-value from the test is greater than 0.05, the data is considered to be normally distributed. The above graph shows the probability outcomes of the test, revealing a p-value of 0.439705. Since this value is greater than the 0.05 significance level, we can conclude that the data is normally distributed and suitable for further testing.
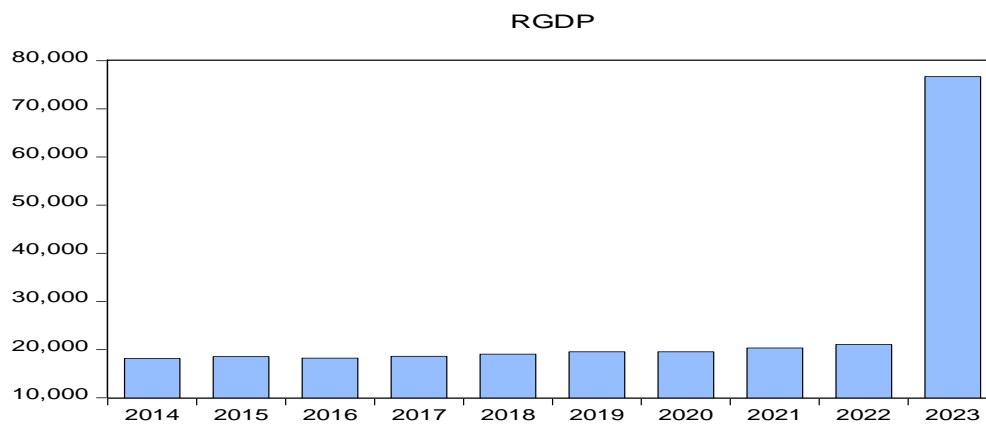
Trend Analysis

Figure 2. Real Gross Domestic Product

The trend analysis was conducted to visualise the graphical representation of the dataset and observe how well it matches the data points. This measures the proportion of variance in the dependent variable explained by the trend model.

Table 3. Panel Unit Root Test

Series: Economic Performance

Method	Statistic	Prob.**	Cross-Sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	8.32406	1.0000	10	9
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-1.74070	0.0409	10	9
ADF - Fisher Chi-square	32.4642	0.0386	10	9
PP - Fisher Chi-square	69.6912	0.0000	10	9

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

The table presents the outcomes of four different panel unit root tests to check whether the data series is stationary or non-stationary. Levin, Lin & Chu (LLC) Test shows the high p-value of (1.0000), leading to failure to reject the null hypothesis of a unit root, meaning it is non-stationary. The Im, Pesaran and Shin (IPS) Test displayed the p-value of 0.0409 (less than 0.05), meaning the null hypothesis of a unit root is rejected and stationary under IPS. The ADF-Fisher Chi-square Test revealed the p-value of 0.0386 (< 0.05); therefore, the null hypothesis of a unit root was rejected, which implies that the series is stationary under ADF-Fisher. The PP-Fisher Chi-square Test portrayed a p-value of 0.0000 (highly significant), leading to strong rejection of the null hypothesis and concluded that the series is stationary under PP-Fisher. However, the LLC test suggests non-stationarity, denoting that three out of four tests (IPS, ADF-Fisher, and PP-Fisher) confirm that the series is stationary. Thus, the majority decision is that the data series is stationary, meaning that its statistical properties (mean, variance) do not change over time.

Table 4. Multi-Collinearity

Variables	Coefficient Variance	Uncentered VIF	Centered VIF
DGR	10210874	154.0409	1.572486
LMR	911.6074	160.8038	1.572486
CPI	7.73E-20	1.747209	1.572486

Source: Researchers' compilation from E-view 8.0 (2025)

Table 4 represents a multi-collinearity test output. This test is used to assess whether independent variables in a regression model are highly correlated with each other, which can distort the results of the regression analysis. The coefficient variance measures the variability of the estimated coefficient for each variable. A large variance suggests instability in the estimation and may indicate multicollinearity. However, it's generally used more in diagnostics rather than as a direct measure of multicollinearity. The uncentered VIF includes the intercept and is generally less useful for detecting multicollinearity. It tends to be high regardless of multicollinearity and is not often used for practical decisions. The centered VIF is the standard measure used to detect multicollinearity among independent variables. It tells us how much the variance of the coefficient is inflated due to multicollinearity. All three variables have centered VIFs around 1.57, which is well below the threshold of concern (typically 5). This indicates that there is no evidence of multicollinearity among DGR, LMR, and CPI. The regression model is statistically stable, and each independent variable is contributing uniquely to the explanation of the dependent variable.

Hypothesis Testing

Generalised Linear Model Regression Analysis

Table 5. Dependent Variable: RGDP

Method: Generalised Linear Model (Quadratic Hill Climbing)
Date: 06/02/25   Time: 05:29
Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.184928	0.503424	2.353737	0.0186
DGR	-0.005698	0.020175	-0.282422	0.7776
LMR	-0.171090	0.433539	-0.394637	0.6931
CPI	-0.136669	0.092414	-1.478881	0.1392

Mean dependent var	0.543361	S.D. dependent var	2.498878
Sum squared resid	601.1052	Log likelihood	-231.6149
Akaike info criterion	4.712299	Schwarz criterion	4.816506
Hannan-Quinn criter.	4.754473	Deviance	601.1052
Deviance statistic	6.261513	Restr. deviance	618.1945
LR statistic	2.729259	Prob(LR statistic)	0.435278
Pearson SSR	601.1052	Pearson statistic	6.261513
Dispersion	6.261513		

Table 5 presents the results of a Generalised Linear Model (GLM) regression analysis, where Real Gross Domestic Product (RGDP) is the proxy of the dependent variable. The model follows a normal distribution with an identity link function, and the estimation method used is Quadratic Hill Climbing. From the table, it was revealed that the intercept is statistically significant at a 5% level, suggesting that, in the absence of the independent variables, RGDP is around (1.18) on average. It also revealed the coefficient of DGR as negative but not statistically significant ($p > 0.05$), meaning deposit growth rate does not have a significant influence on RGDP as a proxy for economic performance. The coefficient of LMR is negative and not significant, indicating that the volume of liquidity mop-up ratio does not significantly impact the RGDP. The coefficient of CPI is negative and not statistically significant, implying that the consumer price index does not significantly influence the RGDP. The findings suggest that deposit growth rate (DGR), liquidity mop-up ratio (LMR), and the consumer price index (CPI) do not significantly influence the economic performance (RGDP) in Nigeria. The p-values for (DGR; LMR and CPI) exceed 0.05, indicating a lack of statistical significance. However, the likelihood ratio test ($p = 0.4353$) suggests that the variable used in the model as a whole is weak in explaining the variations in RGDP. The implication was that there is need to explore additional currency redesign attributes or use alternative models to better capture the relationship between currency redesign attributes and economic performance in Nigeria.

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Table 6. Dependent Variable: Real Exchange Rate (Control Variable)

Method: Generalised Linear Model (Quadratic Hill Climbing)

Date: 06/02/25   Time: 06:37

Included observations: 100

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	1.852584	0.363385	5.098132	0.0000
DGR	-0.032225	0.014563	-2.212777	0.0269
LMR	0.084709	0.312940	0.270689	0.7866
CPI	-0.040767	0.066707	-0.611137	0.5411

Mean dependent var	1.186289	S.D. dependent var		1.832424
Sum squared resid	313.1961	Log likelihood		-199.0179
Akaike info criterion	4.060358	Schwarz criterion		4.164565
Hannan-Quinn criter.	4.102533	Deviance		313.1961
Deviance statistic	3.262459	Restr. deviance		332.4200
LR statistic	5.892467	Prob(LR statistic)		0.116961
Pearson SSR	313.1961	Pearson statistic		3.262459
Dispersion	3.262459			

The table 6 displays the outcomes of a Generalised Linear Model (GLM) regression analysis, where the Real Exchange Rate (RER) serves as a control variable. The model assumes a normal distribution and employs an identity link function, with estimation conducted using the Quadratic Hill Climbing method. The analysis shows that the intercept has a coefficient of 1.852584, indicating that when all independent variables (DGR, LMR, CPI) are held constant at zero, the predicted value of the dependent variable is approximately 1.85. This intercept is statistically significant, as reflected by a p-value of 0.0000 ($p < 0.05$), confirming that it is meaningfully different from zero. The Debt Growth Rate (DGR) has a negative coefficient of -0.032225, suggesting that a one-unit increase in DGR leads to a 0.0322 decrease in the dependent variable, all other factors held constant. This result is statistically significant at the 5% level, with a p-value of 0.0269, indicating that DGR exerts a significant adverse effect on the dependent variable. In contrast, the Liquidity Mop-up Ratio (LMR) shows a positive coefficient of 0.0847, but the associated p-value of 0.7866 ($p > 0.05$) suggests that the relationship is not statistically significant. This implies that LMR has a weak and likely random effect,

indicating it does not significantly influence economic performance in this model. Similarly, the Consumer Price Index (CPI) has a negative coefficient of -0.0408, with a p-value of 0.5411 ($p > 0.05$), which is also statistically insignificant. This result indicates that inflation, as measured by CPI, does not have a meaningful impact on the dependent variable within the current specification. The findings reveal that among the explanatory variables, only DGR has a statistically significant influence on the dependent variable, and its effect is negative. Both LMR and CPI do not demonstrate a statistically significant impact. The intercept remains highly significant and positive, reinforcing the robustness of the baseline model. If the dependent variable reflects economic performance, the results suggest that managing debt growth is crucial for improving outcomes, whereas liquidity and inflation policies may require further refinement or better measurement to reveal their true effects.

5. Discussion of Findings

The findings of this study provide important insights into the effects of currency redesign attributes on economic performance in Nigeria. Specifically, the study focused on evaluating the impact of variables such as the Debt Growth Rate (DGR), liquidity mop-up policies (LMR), and Consumer Price Index (CPI) on economic performance, measured by the real exchange rate (RER) and real Gross Domestic Product (RGDP). The results revealed that Debt Growth Rate (DGR) have a statistically significant negative impact on economic performance. This aligns with the position of Lee et al. (2021), who argued that the financial burdens of currency redesign, such as printing, distribution, ATM upgrades, and recalibrating banking infrastructure, exert inflationary pressures and disrupt economic liquidity. The significant negative coefficient for DGR suggests that the cost-intensive nature of Nigeria's recent currency redesign strained financial institutions, increased operational costs, and reduced the purchasing power of consumers and small businesses, thereby dampening overall economic performance.

Conversely, the Liquidity Mop-up Ratio (LMR) showed a positive but statistically insignificant relationship with economic performance. Although liquidity mop-up policies are designed to control inflation and stabilise the monetary system by reducing excess cash in circulation, the result suggests that the volume of liquidity withdrawn did not have a strong enough or consistent effect to influence macroeconomic performance during the period studied. This outcome could be attributed to structural inefficiencies in monetary transmission or to policy

implementation gaps during the currency transition. Additionally, the Consumer Price Index (CPI) also exhibited a negative but statistically insignificant relationship with economic performance. This finding is in line with the Central Bank of Nigeria's (2022), Ukpabi et al. (2021); and Kparobo and Aroghene (2023) assertion that the banking system reduces financial inclusion and undermines monetary policy effectiveness. However, Nana (2024) and Aribaba et al. (2024) argued that the insignificance in this model may reflect data limitations, such as the short observation window post-redesign or challenges in accurately capturing informal sector behaviours where hoarding is most prevalent. Taken together, the results support structuralist-monetarist and purchasing power parity theories, which argue that monetary policy interventions can either stabilise or destabilise an economy depending on their implementation and cost-effectiveness.

6. Conclusion and Policy Recommendations

The study concluded that currency redesign in Nigeria was aimed at achieving macroeconomic stability and addressing issues such as inflation, cash hoarding, and corruption, its economic cost outweighed the short-term benefits. The policy, in its current form, did not translate into measurable economic improvement, highlighting the need for better planning, stakeholder engagement, and implementation strategies in future monetary reforms. Thus, revealed that currency redesign attributes have a statistically significant negative impact on economic performance, indicating that the financial strain caused by implementing the policy, through expenses related to printing, distribution, and systemic upgrades, had adverse economic implications. It also concluded that these attributes are theoretically important; their actual influence on macroeconomic indicators during the study period was limited, possibly due to execution inefficiencies or external economic shocks. Based on the study findings, it was recommended that:

1. Economic policy stakeholders should undertake detailed financial and economic feasibility studies before rolling out currency redesign initiatives

2. Future policies should adopt a phased approach with adequate time for public awareness, stakeholder feedback, and infrastructure readiness

3. Continuous monitoring and evaluation of currency redesign outcomes using both macroeconomic and microeconomic indicators are essential

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