IMPACT OF EXCHANGE RATE ON DOMESTIC CREDIT: EVIDENCE FROM NIGERIA

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Abstract
This study investigates the relationship between exchange rate fluctuations and domestic credit dynamics in Nigeria. Employing non-linear autoregressive distributed lag (NARDL) and linear autoregressive distributed lag (ARDL) models, this research explores the effects of Real Effective Exchange Rate (RER) on Domestic Credit (DOD) over a significant period. The findings of the non-linear ARDL analysis reveal a notable positive short-run effect of RER on DOD. Specifically, the depreciation of the naira appears to discourage market participants from assuming higher risks, resulting in a decrease in credit volumes. Conversely, an appreciation of the naira encourages market participants to take greater risks, leading to an improvement in credit volumes. However, the linear ARDL analysis demonstrates a contrasting negative effect of RER on DOD. In the context of the linear ARDL results, the appreciation of the naira seemingly discourages market participants from taking increased risks, consequently causing a deterioration in credit volumes. Based on the findings, a key policy recommendation emerges. Policymakers are advised to consider devaluing the naira to dissuade market participants from assuming higher risks, thereby potentially reducing credit volumes in the short run. This recommendation aims to address the observed dynamics between exchange rate movements and credit volumes, offering a strategic approach to influence market behaviors and credit outcomes in Nigeria's economic landscape.

Keywords: ARDL; exchange rate; domestic credit; Nigeria

1. INTRODUCTION

The landscape of exchange rate policies has undergone significant evolution, reflecting the interplay between economic ideologies, policy interventions, and their impacts on domestic economies. Historically, the endeavor to fix exchange rates or control currency depreciation has been contingent upon aligning with economic policies and political constraints (Flood, Garber & Kramer, 1996). This assertion underpins the delicate balance between maintaining exchange rate stability and the broader economic and political considerations that drive such policies.

The dissolution of the gold standard in the 1970s marked a pivotal shift in global monetary systems and economic governance. Formerly, currencies were backed by gold, accompanying policies such as Keynesianism that positioned the state at the core of economic policy, advocating for increase government spending to stimulate economic output and achieve full employment (Mondi, 2016). However, the collapse of the gold standard necessitated a transformation in economic management, advocating for market mechanisms, privatization, and free-floating exchange rates, laying the groundwork for neoliberal economic policies emphasizing small government and market-driven economies.

Nigeria's experience serves as a tangible example of the oscillation between fixed and floating exchange rates and their implications. Between 2015 and 2016, Nigeria pegged the naira against the US dollar to curb currency

depreciation, highlighting the vulnerability of fixed rates to economic shocks (Mondi, 2016). Subsequently, the shift to floating rates aimed to address illiquidity and debt challenges, illustrating the dynamic nature of exchange rate policies in response to economic exigencies.

Recent empirical literature underscores the multifaceted impact of exchange rate movements on macroeconomic and financial conditions, particularly on domestic credit dynamics (Blanchard et al., 2015; Ghosh et al., 2018; BIS, 2019; Neir et al., 2020) These studies highlight how exchange rate fluctuations can influence financial conditions, credit developments, collateral values, and participants' net worth, affecting both borrowers' capacity to accumulate debt and lenders' constraints in providing it.

In this context, this paper aims to investigate the nexus between exchange rates and domestic credit in Nigeria spanning from 1970 to 2021. This extensive period encompasses pivotal economic shifts, including the transition from the gold standard to fixed exchange rates and the subsequent adoption of floating rates. The study's scope encapsulates critical junctures in Nigeria's economic history, aiming to discern how exchange rate variations over time have impacted the country's domestic credit capacity.

2. LITERATURE REVIEW

This section start with a review of the existing theories, followed by empirical studies that relate to the present study.

2.1 Theoretical Review

The theories are divided into four including: first generation model, second generation model, third generation model and the fourth generation model. The first generation model is developed by Flood and Garber (1984). They opine that real domestic credit is determined by the foreign interest rate and a change in the exchange rate. This is arrived at by combining the money market equilibrium and the uncovered interest rate parity, which is expressed as a function of exchange rate. Both the foreign interest rate and the change in exchange rate (expressed as units of domestic currency per unit of foreign currency) are proclaimed to have negative effects on the domestic credit (Gandolfo, 2016). As also pointed out by Gandolfo (2016), this is also what is referred to as the second generation model, according to which Sachs et al. (1996) report that domestic credit recognises the importance of multiple equilibria and self-fulfilling outcomes. The fact that, for the same value of accumulated debt, both devaluation and non-devaluation self-fulfilling rational equilibrium can occur, indicating that currency crises may arise independently of misaligned fundamentals. Another important feature of the second generation model is that self-fulfilling outcomes cannot occur at any level of debt. Only levels that are sufficiently high, but not too high, can give rise to these outcomes. At too high debt levels, a devaluation will inevitably occur while at sufficiently low levels, no devaluation will take place.

As also pointed out by Gandolfo (2016), the third-generation models was developed by Chang and Velasco (1998); Corsetti et al. (1999); and Mendoza and Velasco (2000). The third generation model emphasises the links between banking crises and currency crises (or the so-called *twin* crises), but these links are not clear. The chain of causation might, in fact, run either way. Problems of the financial sector might give rise to the currency crisis and collapse. At the opposite side, balance-of-payments problems might be the cause of banking crises. If this loss is not sterilised, the consequence will be a credit squeeze and, hence, bankruptcies and financial crises. Finally, there is the possibility that currency and financial crises might have common causes.

2.2 Empirical Review

The empirical literature is reviewed in three dimensions. The first dimension is based on the recent empirical studies that have investigated on the link between

currency appreciation and domestic credit. Some these studies include (Hahm et al., 2013; Blanchard et al, 2015; Bruno & Shin 2015; Baskaya et al., 2017; Shin, 2018; Hofmann et al., 2019; and Neir et al., (2020). These studies examine how appreciation of domestic currency in the run-up to such events raises collateral value and net worth, and is also associated with a reduction in credit spreads, thereby encouraging market participants to take greater risks and allowing for an expansion in credit volumes. Some parts of studies also revealed that indeed these mechanisms as the risk-taking channel of currency appreciation in the context of cross-border spillovers of monetary policy (Neir et al., 2020).

Secondly, are the studies that examined the correlation between capital flows and domestic credit. These studies including (Elekdag & Wu, 2011; Mendoza & Terrones, 2012; Hahm et al., 2013; Bruno & Shin 2015b; Bruno & Shin 2015a; IMF 2017; Igan & Tan, 2017, and Baskaya et al., 2017) found that there is a strong positive relationship between capital flows and domestic credit. They concluded that increase in capital inflows lead to an increase in loanable funds for the domestic banking system, and thereby push up the supply of domestic credit (Neir et al., 2020).

Lastly are the studies (viz: Amri, Richey & Willet, 2016; Lane & McQuade, 2014; and Igan & Tan, 2017) found that there is likely to be a two-way relationship, where strong domestic credit can also pull-in additional capital from abroad (Neir et al., 2020).

3. METHODOLOGY

3.1 Theoretical Framework

The theoretical foundations of this study is based on the simplest first generation model developed by Flood & Garber (1984). This model was initially applied to currency crises in Mexico 1973– 1982 and Argentina 1978–1981. According to Flood, Garber & Kramer (1996), the speculative attack model (i.e. first generation model) was derived from the combination of the money market equilibrium condition and the uncovered interest rate parity in Equations 3.1 and 3.2 below:

$$\frac{M}{P} = b_0 - b_1 i \qquad b_1 > 0$$

$$i = i^* + \dot{S}/S$$

Where: M= R+D; M= High powered money, R= Reserves, D= Domestic debt held by domestic money bank/domestic credit, i = domestic interest rate, i^*= foreign interest rate, and S= quoted exchange rate.

They assumed presence of purchasing power parity with constant foreign price level (P^*). The demand for nominal money balances (M) is also assumed to be constant under fixed exchange rate (S) (i.e. $\dot{S}$=0). They also assumed further that the reserve (R) is exhausted so that the M=D and the exchange rate is allowed to float free.

Finally, the speculative attack model is specified as Equation 3.3

below after combining Equations 3.1 and 3.2 and considering the above assumptions.

$$\frac{D}{P} = b_0 - b_1 i^* - b_2 \dot{S} \quad 3.3$$

The above equation shows that the real domestic credit is determined by the foreign interest rate and exchange rate. The present study included GDP growth as a control variable which is supported by empirical studies (see Claessens et al., 2013; Akinci & Olmstead-Rumsey 2018; Cerutti et al. 2017; Alam et al. 2019 and Neir et al., 2020). Equation 3.3 was re-specified as Equation 3.4 below including the control variable, taking the log of DOD and LRGDP and denoting $\frac{D}{P} = DOD$, $i^* = FOI$ and $\dot{S} = RER$.

$$(DOD)_t = b_0 - b_1 FOI_t - b_2 RER_t - b_3 (RGDP)_t + e_t \quad 3.4$$

Where: DOD= real domestic debt held by domestic money bank, FOI= foreign interest rate, RER= real exchange rate and RGDP= real gross domestic product.

The above equation shows that FOI, RER and RGDP is expected to have negative effect on the real domestic credit.

The estimation techniques that was used in this study follow the following steps including: i) Descriptive statistics including number of observations, mean, standard deviation, minimum and maximum. mean, and standard deviation; ii) Pre-estimation tests (trending analysis, Augmented Dickey Fuller (ADF) unit root test and Engle Granger cointegration test); iii) estimate the model using Auto Regressive Distributive Lag Model (ARDL) estimation method and lastly v) Post- estimation test (autocorrelation, heteroscedasticity, normality and stability test).

The ARDL model can be specified as:

$$\Delta lnDOD_t = \beta_0 + \beta_1 \Delta lnDOD_{t-1} + \beta_2 \Delta FOI_t + \beta_3 \Delta FOI_{t-4} + \beta_4 \Delta RER_t + \beta_5 \Delta RER_{t-4} + \beta_6 \Delta lnRGDP_t + \beta_7 \Delta lnRGDP_{t-1} + \beta_8 \Delta lnRGDP_{t-2} + \beta_9 \Delta lnRGDP_{t-3} + \mu_t \quad 3.5$$

Equations 3.5 is the ARDL specification of Equation 3.4 above where β_1 to β_9 are the long run multipliers, and $\mu_t$is white noise error which is independent and identically distributed and all other variables are as formerly defined. The variables can be viewed as an ARDL of order (1,4,4,3). Note that some lags were omitted because they were not significant in the original estimated model.

In a bid to reflect the asymmetry effect, the study expresses Equation 3.5 in non-linear autoregressive distributed lag (NARDL) long run model as shown in Equation 3.6 below:

$$\Delta InDOD_t = b_0 + b_1 \Delta \mathrm{FOI_t} + \sum_{i=1}^{t} \partial_1^+ \Delta l\mathrm{nRER}_{t-i}^+ + \sum_{i=1}^{t} \partial_2^- \Delta l\mathrm{nRER}_{t-i}^- + \sum_{i=1}^{t} b_3 \Delta l\mathrm{nRGDP_{t-i}} + \mu_t \quad 3.6$$

where e_t is the error term and $\Delta l\mathrm{nRER}_{t-i}^+$ represents positive change in log of exchange rate (i.e. the rate of real depreciation of Naira) while $\Delta l\mathrm{nRER}_{t-i}^-$ indicates negative change in log of exchange rate (i.e. the rate of real appreciation of Naira). The direction of the signs for $\partial_1^+$and ∂_1^- are determined by empirical estimations.

DATA AND RESULTS

4.1 Data

The **foreign interest rate (FOI)** is proxied by United State (US) real interest rate which is the lending interest rate adjusted for inflation as measured by the GDP deflator. The **real gross domestic product (RGDP)** is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in constant local currency. The **real exchange rate (RER)** is proxied by real effective exchange rate. It is the nominal effective exchange rate (a measure of the value of a currency against a weighted average of several foreign currencies) divided by a price deflator or index of costs. **The domestic credit (DOD)** is the domestic credit to private sector by banks measured as percentage of GDP. Data on FOI, RER, and RGDP were sourced from World Bank Development Indicators (WDI) whilst DOD data was from Central Bank of Nigeria (CBN).

4.2 Results

Table 4.2.1 Descriptive Analysis

	LDOD	FOI	RER	LRGDP
Mean	6.597316	3.787654	147.0349	31.13045
Median	6.924587	3.271155	100.5760	30.92446
Maximum	9.864880	8.594620	536.8903	31.92671
Minimum	2.415253	-1.281419	49.74471	30.41674
Std. Dev.	2.249875	2.450985	115.8669	0.533032
Skewness	-0.312032	0.115369	1.945144	0.268276
Kurtosis	1.894439	2.048863	6.016974	1.501010
Jarque-Bera	2.753355	2.075455	41.40398	4.330386
Probability	0.252416	0.354259	0.000000	0.114728
Sum	270.4900	196.9580	6028.431	1276.348
Sum Sq. Dev.	202.4775	306.3738	537005.2	11.36493
Observations	41	52	41	52

Author computations

Table 4.2.1 above shows that, the average log of domestic debt (LDOD) is 6.597, average foreign interest rate (FOI) is 3.79%, average real exchange rate (RER) is 147.03% and average log

of real gross domestic product (LRDGP) is 31.13. The standard deviation values for LDOD, FOI, RER and LRGDP are 2.25, 2.451, 115.87 and 0.533 respectively. The Jarque-Bera values for LDOD, FOI and LRGDP variables indicate that their series are normal because their respective probability values 0.252, 0.354 and 0.115 are greater than 0.05 significant level. Whilst the RER series is not normal with probability value of 0.000 less than the 0.05 significant level. The kurtosis values for LDOD, FOI and RER and LRGDP series are 1.894, 2.049, 6.017 and 1.501 respectively. These values are less than 3 indicating that the series for each variable is platykurtic except RER which its kurtosis value is greater than 3 indicates leptokurtic. Finally, the skewness values for FOI, RER and LRGDP series are positive indicating positively skewed. Whilst LDOD values is negative showing negatively skewed series.

Table 4.2.2 Correlation Analysis

LDOD	1.000000			

FOI	-0.823528	1.000000		
	(0.0000)***	-----		
RER	-0.533837	0.560488	1.000000	
	(0.0003)***	(0.0001)***	-----	
LRGDP	0.944332	-0.842550	-0.436211	1.000000
	(0.0000)***	(0.0007)***	(0.0044)***	-----

Author computations: p-values in parenthesis (). *, **, * indicates 1%, 5% and 10%**

The table above shows the correlation analysis results. This reports that the coefficient of correlation for domestic debt (DOD) is strongly and significantly related with foreign interest rate. (FOI) negatively, with RER negatively and with real gross domestic product (RGDP) positively at 1% significant level. FOI has a strong significant positive correlation with real exchange rate (RER) while it has strong significant negative correlation with

RGDP at 1% significant level. However, RER has a weak significant negative relationship with RGDP at 1% level of significance

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Figure 4.2.1 Trending Analysis

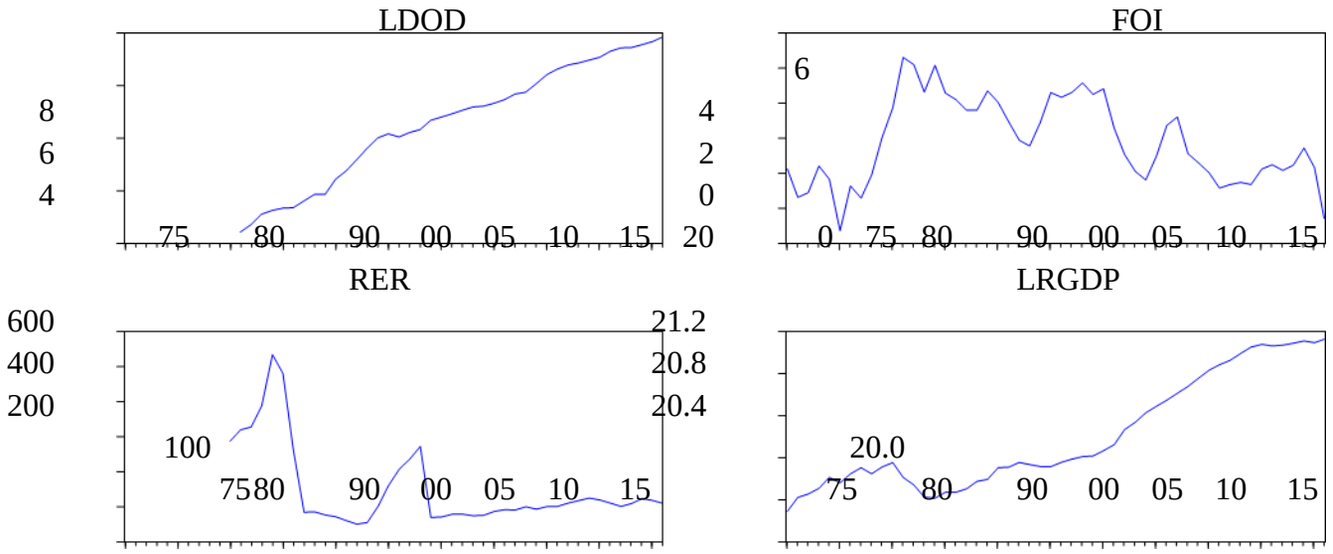

Figure 4.2.1 shows that log of domestic debt (LDOD) and log of real gross domestic product (LRGDP) are both trending whilst foreign interest rate (FOI) and real exchange rate (RER) were not trending.

Table 4.2.3 Unit-root Testing

Variables	ADF(p-values)		Order of Integration	
	Constant without trend	Constant with trend	Constant without trend	Constant with Trend
LDOD	0.0194**	0.0003***	I(0)	I(1)
LRGDP	0.0211**	0.0630*	I(1)	I(1)
FOI	0.000***	0.000***	I(I)	I(I)
RER	0.0323**	0.0021***	I(0)	I(I)

Author computations: *, **, * indicates 1%, 5% and 10%**

The table above shows that two categories of test. The first category is the unit root test with constant but not trending and the second category is with constant and trend. The results of first category revealed that, but LDOD and RER are stationary at level whilst LRGDP and FOI are significant at first difference. In second category, LDOD, LRGDP, FOI and RER are all stationary at first difference with respective probability values 0.0003, 0.063, 0.000 and

0.0021, which are less than 5% significant level except LRGDP that is also stationary at first different but at 10% significant level. Therefore, this will lead us to test for the cointegration test in two ways. We conducted ARDL bound testing cointegration technique (shown on Table 4.2.4a) to follow the first category unit root test results revealed and used Engle-Granger cointegration test (shown on Table 4.2.4b) to follow the second category unit root test result.

Table 4.2.4a ARDL Bounds Test Cointegration Technique

Test Statistic	Value	K
F-statistic	3.626548	4

Critical Value Bounds

Significance	I0 Bound	I1 Bound
10%	2.45	3.52
5%	2.86	4.01
2.5%	3.25	4.49
1%	3.74	5.06

Author computations

The above table shows that cointegration does not exist among LDOD, LRGDP, FOI and RER because the F-statistics of 3.627 is less than the I(0) bound critical value of 3.74 at 1% significant level. Therefore, no long run relationship exist among LDOD, LRGDP, FOI and RER.

Table 4.2.4b Engle-Granger Cointegration Test

	Value	Prob.
Engle-Granger tau-statistic	-2.392483	0.8707
Engle-Granger z-statistic	-24.58402	0.1377

Author computations: *, **, * indicates 1%, 5% and 10%**

Table 4.2.4 shows that cointegration does not exist among the variables LDOD, FOI, RER and LRGDP. This is because the probability value of the Engle-Granger tau statistics is greater than all significant levels. Therefore, there is no long run relationship among the variables.

In summary, following the conflicting cointegration results given by the two techniques (ARDL bound test revealed long run relationship exist among variables whilst Engle-Granger revealed no long run relationship among variables), we conclude to use both ARDL and Non-linear ARDL(NRDL) to do justices to the conflicting results revealed by the two techniques. We prioritize NARDL to capture the asymmetric effect of exchange rate.

Table 4.2.5a: NARDL Results (Long run)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FOI	-1.764815	1.380321	-1.278554	0.2150
RER_POS	0.045754	0.034334	1.332615	0.1969
RER_NEG	0.013822	0.015542	0.889342	0.3839
LRGDP	-7.760418	7.807361	-0.993987	0.3315
C	229.942606	232.833599	0.987583	0.3346

Author computations: *, **, * indicates 1%, 5% and 10%**

The above result indicates that foreign interest rate (FOI) and LRGDP do not have effect on domestic credit in the long run. Also, real exchange rate does not have asymmetry (non-linear) effect on domestic debt in the long run.

Table 4.2.5b: NARDL Results (Short run)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LDOD(-1)	0.614236	0.177875	3.453182	0.0024***
LDOD(-2)	0.257624	0.238469	1.080324	0.2922
LDOD(-3)	0.249292	0.169723	1.468816	0.1567
FOI	0.029132	0.028018	1.039792	0.3103
FOI(-1)	0.033131	0.034692	0.954999	0.3504
FOI(-2)	0.047909	0.037234	1.286719	0.2122
FOI(-3)	0.052425	0.033446	1.567451	0.1320
FOI(-4)	0.051213	0.029309	1.747319	0.0952*
RER_POS	0.001746	0.001554	1.123885	0.2737
RER_POS(-1)	-0.002872	0.001873	-1.533436	0.1401

RER_POS(-2)	-0.001720	0.001795	-0.958429	0.3488
RER_POS(-3)	-0.002697	0.001542	-1.749268	0.0948*
RER_NEG	-0.001675	0.000686	-2.440966	0.0236**
LRGDP	0.730065	0.755868	0.965863	0.3451
LRGDP(-1)	0.073415	1.026868	0.071495	0.9437
LRGDP(-2)	1.704865	0.823806	2.069497	0.0510**
*LRGDP(-3)	1.078714	0.874269	1.233847	0.2309
LRGDP(-4)	-2.646867	0.676480	-3.912707	0.0008***
C	-27.85808	8.880589	-3.136963	0.0050***
R-squared	0.998744	Mean dependent var		6.701868
Adjusted R-squared	0.997668	S.D. dependent var		2.175332
S.E. of regression	0.105045	Akaike info criterion		-1.363219
Sum squared resid	0.231722	Schwarz criterion		-0.561001
Log likelihood	46.26437	Hannan-Quinn criter.		-1.073162
F-statistic	928.0025	Durbin-Watson stat		1.976715
Prob(F-statistic)	0.000000			

Author computations: *, **, * indicates 1%, 5% and 10%**

The short run result revealed that one-lag period of domestic credit has positive effect on the current domestic credit (DOD) in the short run. Four year ago FOI has positive effect on DOD at 10% significant levels. RER has asymmetric effect on DOD in the short run. This is revealed in Table 4.2.5b that an increase in RER does not have effect any positive effect on DOD. However, RER has positive effect on DOD (at sig. level 0.05). Therefore, this implies that, a decrease in real exchange rate i.e. depreciation of naira leads to 0.116% decrease in the level of domestic debt in the short run. This is in line with previous studies like: (Hahm et al., 2013; Blanchard et al, 2015; Bruno & Shin 2015; Baskaya et al., 2017; Shin, 2018; Hofmann et al., 2019; and Neir et al., (2020)).

Table 4.2.5c: Robustness Test

Tests	Test values	Pvalues
Serial Correlation (F-statistics)	1.858	0.1833
Heteroscedasticity (Chi-square(18))	21.8398	0.2392
Normality (Jargue-Bera)	0.5666	0.7533
Ramsey RESET Stability (F-statistics)	16.9048	0.0005

Author computations: *, **, * indicates 1%, 5% and 10%**

The robustness test revealed that the estimated model/equation is free from serial correlation problem, heteroscedasticity problem because their respective probability values 0.183 and 0.2392 is greater than 0.05 sig. level. Also, the model is normal but not stable over time indicating no long run effect of

independent variables on DOD.

Figure 4.2.1 NARDL Multiplier Graph

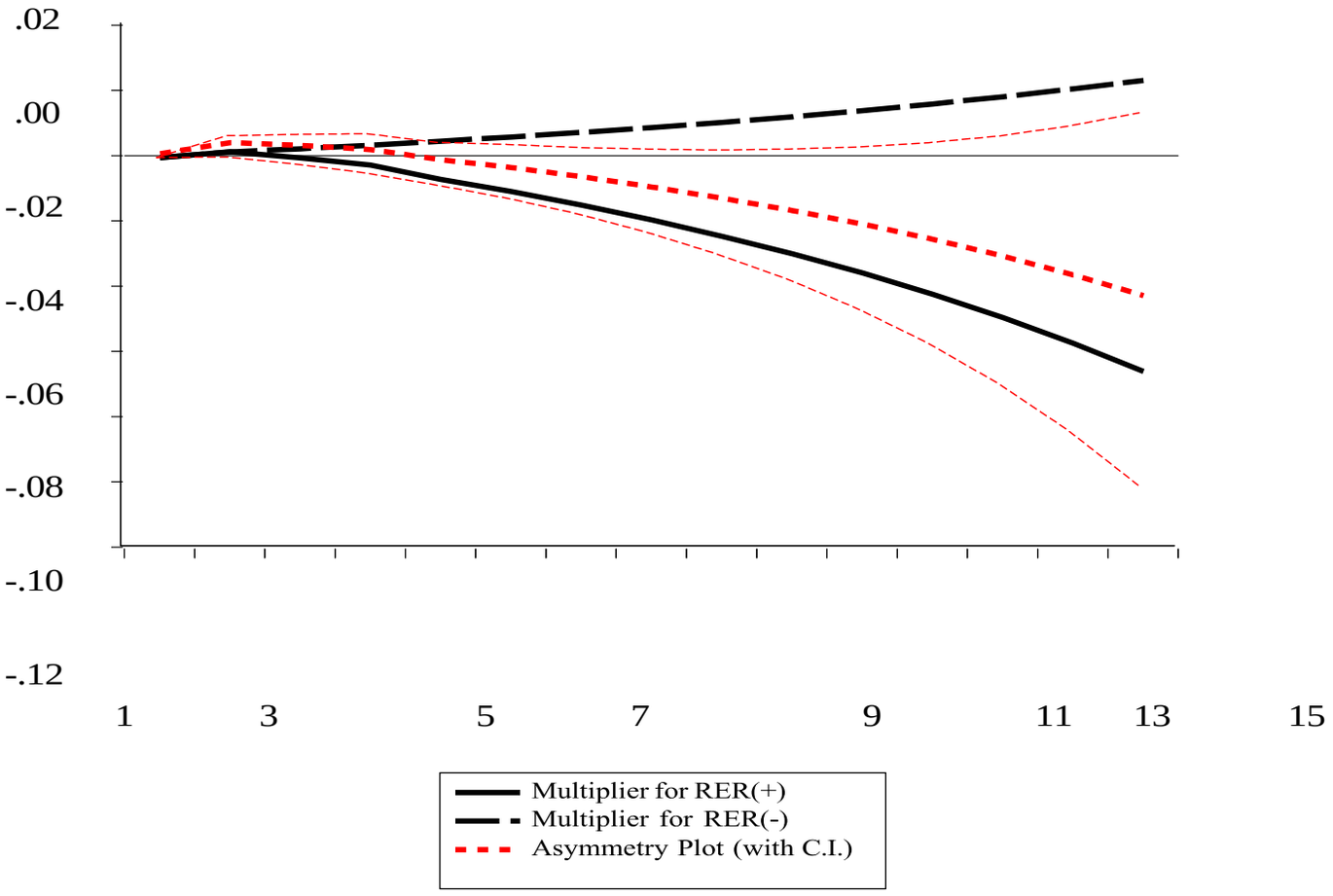

Figure 4.2.1 above shows that the Asymmetry does not exist in the long run though its slight effect exists in the short run.

Table 4.2.5d: Wald Asymmetry Test

Wald Test:
Equation:
NARDL01

Test Statistic	Value	df	Probability
t-statistic	0.055545	21	0.9562
F-statistic	0.003085	(1, 21)	0.9562
Chi-square	0.003085	1	0.9557

Author computations: *, **, * indicates 1%, 5% and 10%**

The Wald test of asymmetry revealed that asymmetry does not exists in the long run because the probability of F-statistics is greater than 0.05 indicating equality in the positive (POS) and negative (NEG) coefficient of RER.

Table 4.2.6 ARDL Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
D(LDOD(-1))	-0.075328	0.189709	-0.397074	0.6955
D(FOIUS)	0.010354	0.025998	0.398261	0.6947
D(FOIUS(-1))	-0.028255	0.024274	-1.164021	0.2581
D(FOIUS(-2))	0.009072	0.022234	0.408015	0.6876
D(FOIUS(-3))	0.015031	0.020710	0.725821	0.4764
D(FOIUS(-4))	0.069581	0.021165	3.287590	0.0037
D(RER)	-0.000485	0.000472	-1.026751	0.3168
D(RER(-1))	-6.41E-05	0.000412	-0.155684	0.8778
D(RER(-2))	-8.96E-05	0.000443	-0.202234	0.8418
D(RER(-3))	-8.43E-05	0.000450	-0.187343	0.8533
D(RER(-4))	-0.001140	0.000426	-2.676977	0.0145
D(LRGDP)	-0.503804	0.857841	-0.587293	0.5636
D(LRGDP(-1))	-2.130615	0.721369	-2.953570	0.0079
D(LRGDP(-2))	1.227881	0.564075	2.176803	0.0416
D(LRGDP(-3))	1.868314	0.570322	3.275894	0.0038
C	0.372053	0.108564	3.427029	0.0027
@TREND	-0.005691	0.002355	-2.416273	0.0254

R-squared	0.704383	Mean dependent var	0.178905
Adjusted R-squared	0.467889	S.D. dependent var	0.141850
S.E. of regression	0.103474	Akaike info criterion	-1.395263
Sum squared resid	0.214137	Schwarz criterion	-0.655112
Log likelihood	42.81237	Hannan-Quinn criter.	-1.134325
F-statistic	2.978440	Durbin-Watson stat	1.930682
Prob(F-statistic)	0.011370		

The table shows that four years ago foreign interest rate (FOI), a year ago LRGDP, two years ago LRGDP and 4-years ago LRGDP have positive effect on the current domestic debt. Moreover, an in increase real exchange rate i.e. appreciation of naira leads to 0.114% decrease in the level of domestic debt. In sum, the appreciation of naira thereby discourages market participants to take greater risks and allowing for a deterioration in credit volumes. This is not in line with previous studies like: (Hahm et al., 2013; Blanchard et al, 2015; Bruno & Shin 2015; Baskaya et al., 2017; Shin, 2018; Hofmann et al., 2019; and Neir et al., (2020)).

CONCLUSION AND RECOMMENDATIONS

The study thereby conclude that the results of non-linear ARDL (NARDL) revealed that there is positive effect of RER on DOD in

the short run i.e. the depreciation of naira thereby discourages market participants to take greater risks and allowing for a deterioration in credit volumes and conversely, appreciation of naira thereby encourages market participants to take greater risks and allowing for an improvement in credit volumes. Whilst using linear ARDL revealed that, RER has negative effect on domestic debt (DOD) i.e. the appreciation of naira thereby discourages market participants to take greater risks and allowing for a deterioration in credit volumes.

The study thereby recommend to policy makers to devalue naira in order to discourages market participants to take greater risks thereby deteriorates credit volumes in a short run situation.

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