



GSJ: Volume 7, Issue 6, June 2019, Online: ISSN 2320-9186

www.globalscientificjournal.com

ENHANCING ECONOMIC COMPETITIVENESS IN NIGERIA: THE ROLES OF EXCHANGE RATE AND INTEREST RATE

¹Kunle F. Oguntegbe ²Alexander Victor

1&2 *Lagos Business School, Pan-Atlantic University, Ajah, Lagos.*

Abstract

One of the three broad objectives of the Federal Government of Nigeria's Economic Recovery & Growth Plan (ERGP) is to build a globally competitive economy, with a key execution priority of stabilizing the macroeconomic environment. Macroeconomic policy instruments such as the interest rate and exchange rate remain prime monetary drivers of growth and competitiveness in any economy. This empirical study therefore proffers response to the question of which of interest rate and exchange rate makes more significant contribution to economic competitiveness in Nigeria. We have employed an Ordinary Least Square Regression technique to measure the impact of interest rate and exchange rate on GDP using data spanning from 1981-2016. Results reveal that exchange rate has more significant impact on economic competitiveness than interest rate. The Federal Government of Nigeria is therefore advised to implement policies to improve the exchange rate system in Nigeria.

Introduction

Nigeria experienced a retarding growth in 2015 which eventually degenerated into severe economic recession in 2016. One major root cause of the Country's economic miseries as identified by Agbanobi (2017) is the shift in global monetary policy cycles which has greatly affected Nigeria's financial market; most especially, the monetary policy rate for Nigeria which stood at a benchmark of 14% in the first quarter of 2017, as against the 12% benchmark in the first quarter of 2016 and 13% in 2015 Q₁. Increase in interest rate is associated with inflation as illustrated by the Fisher equation ($i = r + \pi$) which better captures the positive relationship between nominal interest rate (i) and inflation (π). Interest rate remains one of the prime drivers of Gross Domestic Product, albeit indirectly through its effect on investment. Whether viewed from the perspective of cost of capital or from its function as opportunity cost of funds, interest rate has vital implications on economic growth and development (Habib *et al.* 2017). It is however pertinent to mention that both monetary and fiscal policies affect economic growth. However, for the purpose of this study, monetary policy tools, most especially the

interest rate and exchange rate will be the main variables in focus. This is because any growth-oriented economy must pay attention to some key macroeconomic variables amongst which are the interest rate and exchange rate.

In order to capture the dynamism and the Nigerian economy in the last few years, we have decided to analyze the factors that influence economic growth and by extension, economic competitiveness of Nigeria regarding the attraction of foreign investments. Alongside the main determinant factors of the economic competitiveness it is elementary to analyze the evolution of the real rate of exchange in order to observe the results of the economic performance of the companies that carry out activities of imports and exports. This study is thus built mostly on the empirical analysis meant to offer the response to the question of which of interest rate or exchange rate contributes more to economic competitiveness than the other. The study proceeds with the presentation of the conceptual aspects concerning the connections between the exchange rate, trade openness and the economic competitiveness. Literature has approached the issue of the connections established between the exchange rate, the dynamic of the commercial transactions and economic competitiveness. Regarding the studies completed up to date, which analyse the influence of the exchange rate on commercial trade, there are different results depending on the stage of development of each country as well as the frequency of the analysed data. In the second part I have conducted an empirical study divided into two segments. The motivation of the study is given by the different evolution Nigeria regarding the transition period of exchange rates up until the present day. Under these circumstances we ask ourselves if the exchange regime can influence the trade competitiveness, nationally quantified by the evolution of imports and exports. As an influential mechanism of foreign trade, the exchange rate only stimulates in a very short term, structural reforms being necessary in the economy to stimulate the growth of the international competitiveness of goods and services. More than that, depreciations can alter foreign trades, especially the exports, through the loss of external partners and markets.

The motivation for this study is to examine how the Federal Government of Nigeria can use monetary policy tools to improve the competitiveness of the Nigerian economy. The Nigerian Economy in this 21st century is not globally competitive. Some of the reasons adduced for the poor economic competitiveness include: macroeconomic instability, infrastructural failure, weak public institutions, poor quality of manpower, and slow pace of technological development among others (Okerefor et al., 2015).

The inter-relationship among interest rate, exchange rate and economic growth has remained a contentious issue in the economic growth literature. For example Obansa et al, (2013) examined the relationship existing among exchange rate, interest rate and economic growth in Nigerian economy over the period of 1970-2010. It was discovered that exchange rate had a stronger impact on Economic growth than interest rate. Babalola *et al.* (2015) studied the effect of interest rate on economic growth, with the aim of identifying the measures to maintain inflation and interest rate stability. They found out that interest rate has a negative effect on economic growth but interest rate does not granger cause economic growth. In another study, Acha (2011) analysed the effect of interest rate on investment, he found that interest rate is a poor determinant of savings and investment indicating that bank loans are mostly diverted and not used for productive purposes. Jelilov et al (2016) also examined the relationship between interest rates and economic growth in Nigeria. Employing annual data from 1981 to 2013, they found that there exists a long run relationship between interest rate and economic growth (measured by GDP). Results of the Error Correction Model further revealed a significant negative relationship between GDP and interest rate, in line with apriori expectation.

One of the major macroeconomic objectives of any economy is to have a sustained level of economic growth. For an economy to have sustained economic growth, interest rate stability remains a *sine qua non* as interest rate drives investment which is one of the components of economic growth. Increased productivity is key to the growth of any economy and it remains the bedrock of ensuring competitiveness in any economy. It is therefore necessary for Nigeria to put her financial market on a path of recovery; one of the ways to do this is by the Monetary Authority putting in place structural reforms in the financial market.

Literature Review

Interaction of interest rate, exchange rate and economic growth has been an interesting theme amongst Researchers in the field of economics. Some relevant literatures in this area will therefore be discussed in this section. In Nigeria, Obamuyi (2009) studied the relationship between interest rates and economic growth, employing co-integration and error correction model techniques of analysis to capture both the long run and short-run dynamics of the variables in the model. Results revealed that real interest rates have significant effect on economic growth. There also exists a unique long-run relationship between economic growth interest rate. It was recommended that the formulation and implementation of financial policies that enhances investment-friendly interest rate is necessary for promoting economic growth in Nigeria.

Obansa et al. (2013) extended the research on interest rate and economic growth by including exchange rate into the model. Also employing time series data which was splinted into two economic era; regulation era and deregulation era. Results of the Vector Auto Regression (VAR) technique revealed that Exchange rate had a stronger impact on Economic growth than Interest rate, particularly, Interest rate impact was found to be positive but however declined as the time horizon increased.

Owosu and Odhiambo (2001) investigated the relationship between interest rate Liberalization and economic growth in Nigeria using autoregressive distributed lag bounds testing approach. They concluded that, interest rate liberalization policies have positive effect on economic growth in Nigeria. Therefore, interest rate liberalization policies together with increase in the productivity of labour, increase in

Methodology

This study seeks to measure the impact of interest rate and exchange rate on economic growth using data spanning from 1981-2016. The objective is to ascertain which of interest rate or exchange rate exerts the greater influence on economic competitiveness in Nigeria. We have included other control variables such as gross savings and trade openness which are common in growth literatures. We examine the individual effect of interest rate and exchange rate on output (as measured by GDP) using the Ordinary Least Square regression technique. As a pre-test, we employed the Augmented Dickey Fuller unit root test, to ascertain the stationarity of the time series data employed. All these were to ensure the validity of the secondary data for long run policy prediction.

Our model was adapted from Jelilov *et al.* (2016) but slightly modified as follows:

$$Y_t = \beta_0 + \beta_1 RER_t + \beta_2 RLR_t + \beta_3 GS_t + \beta_4 TO_t + E_t$$

Where: $Y_t = \text{GDP}$

RER_t = Real Exchange Rate

RLR_t = Real Lending Rate

GS_t = Gross Savings

TO_t = Trade Openness

E_t = White noise

Results and Discussions

First, we determine the stationarity of the time series data. From table 1, the significant probability value of 0.006 indicates the non-existence of unit root thereby confirming the stationarity (at first difference) of GDP.

Table 1: **Stationarity Test for GDP**

Null Hypothesis: GDP has unit root	t-Statistics	Prob
Augmented Dickey-Fuller Test	-2.807	0.006
Test Critical Values		
1%	-2.635	
5%	-1.951	
10%	-1.611	

Source: **Authors' Computation, 2017**

From Table 2, the significant probability value of 0.004 indicates the non-existence of unit root thereby confirming the stationarity (at first difference) of Exchange Rate.

Table 2: **Stationarity Test for Exchange Rate**

Null Hypothesis: Exchange rate has unit root	t-Statistics	Prob
Augmented Dickey-Fuller Test	-3.014	0.004
Test Critical Values		
1%	-2.635	
5%	-1.951	
10%	-1.611	

Source: **Authors' Computation, 2017**

Table 3 also reports a significant probability value of 0.000 indicates the non-existence of unit root thereby confirming the stationarity (at first difference) of lending interest rate.

Table 3: Stationarity Test For Lending Interest Rate

Null Hypothesis: Lending interest rate has unit root	t-Statistics	Prob
Augmented Dickey-Fuller Test	-6.582	0.000
Test Critical Values		
1%	-2.634	
5%	-1.951	
10%	-1.611	

Source: **Authors' Computation, 2017**

Table 4 reports a significant probability value of 0.000 indicates the non-existence of unit root thereby confirming the stationarity (at first difference) of Gross savings.

Table 4: Stationarity Test for Gross Savings

Null Hypothesis: Gross savings has unit root	t-Statistics	Prob
Augmented Dickey-Fuller Test	-8.313	0.000
Test Critical Values		
1%	-2.634	
5%	-1.951	
10%	-1.611	

Source: **Authors' Computation, 2017**

Table 5 also shows a significant probability value of 0.000 indicates the non-existence of unit root thereby confirming the stationarity (at first difference) of the data obtained on trade openness.

Table 5: Stationarity Test for Trade Openness

Null Hypothesis: Trade openness has unit root	t-Statistics	Prob
Augmented Dickey-Fuller Test	-8.126	0.000
Test Critical Values		
1%	-2.634	
5%	-1.951	
10%	-1.611	

Source: **Authors' Computation, 2017**

Finally, table 6 shows the results of OLS estimates involving the individual effect of interest rate and exchange rate on GDP (as a proxy for economic competitiveness). From the table, the coefficient of exchange rate is 1.561, indicating that a unit increase in exchange rate will increase the GDP by a factor of 1.561 and this is significant at one percent.

Similarly, the coefficient of Lending interest rate is 1.741. This shows that a unit increase in interest rate will cause GDP to increase by a factor of 1.741. However, effect is not significant as indicated by the probability value of 0.455. In a similar vein, trade openness has no significant impact on GDP as shown by the probability vale of 0.890 while gross savings significantly affects GDP. Specifically, a unit increase in gross savings will cause GDP to increase by a factor of 3.668.

Table 6: Effect of Interest Rate and Exchange Rate on Economic Competitiveness

Dependent Variable: GDP	Coef.	Std Err.	t-statistics	prob.
Exchange rate	1.561	9.737	0.000	
1.601		0.757	0.455	
Lending interest rate	1.741	3.807	0.006	
2.301		-0.140	0.890	
Gross Savings	3.668			
9.611				
Trade Openess	1.071			
7.651				

Source: *Author's Computation, 2017*

Conclusion

This study investigates the relationship between GDP and interest rate as well as that between GDP and exchange rate with the aim of determining which of the two variables (interest rate and exchange rate) has more significant impact on economic competitiveness in Nigeria. Results of Ordinary Least Square regression estimate reveal that exchange rate significantly affects economic competitiveness while the effect of lending interest rate is not significant. Gross savings also enhances economic competitiveness.

Policy Recommendation

From the findings of this study, it is recommended that the Federal Government of Nigeria, through its Monetary Policy Authorities should formulate and implement policies to improve the exchange rate since it has more impact on economic competitiveness. For example, Nigeria can embrace market-based exchange rate system which encourages a productivity-driven economy. This will help Nigeria achieve her objective of building a globally competitive economy as contained in the Economic Recovery & Growth Plan.

References

- Agbanobi, T. (2017). Looking inwards: Will Nigeria tread the path of economic recovery and growth in 2017. *Economic and Policy Review*, 16(1), 3-11
- Babalola, O. O., Danladi, J. D., Akomolafe, K. J., & Ajiboye, O. P. (2015). Inflation, Interest Rates and Economic Growth in Nigeria. *European Journal of Business and Management*, 7(30), 91-102.
- Habib, M. M., Mileva, E., & Stracca, L. (2017). The real exchange rate and economic growth: revisiting the case using external instruments. *Journal of International Money and Finance*, 73, 386-398.
- Jelilov, G. (2016). THE IMPACT OF INTEREST RATE ON ECONOMIC GROWTH EXAMPLE OF NIGERIA. *African Journal of Social Sciences*, 51-64.
- Jelilov, G., Waziri, F., & Isik, A. (2016). Interest Rate Behaviour and its Relationship with Economic Growth in Nigeria: An Error Correction Model Approach. *The Empirical Economics Letters*, 245-255.
- Obamuyi, T. M. (2009). An investigation of the relationship between interest rates and economic growth in Nigeria, 1970-2006. *Journal of economics and International Finance*, 1(4), 93.
- Obansa, S. J., Okoroafor, O. D., Aluko, O. O., & Eze, M. (2013). Percieved Relationship between Exchange Rate, Interest Rate and Economic Growth in Nigeria: 1970-2010. *American journal of humanities and social sciences*, 1(3), 116-124.
- Okereafor, G., Ogunbangbe, B. M., & Anyanwu, A. (2015). Positioning Nigeria For Global Competitiveness In The 21st Century: The Policy Imperatives. *International Journal of Management Science and Business Administration*, 1(10), 56-70.
- Owusu, E. L., & Odhiambo, N. M. (2014). Interest rate liberalisation and economic growth in Nigeria: evidence based on the ARDL-bounds testing approach. *International Journal of Sustainable Economy*, 6(2), 130-141.

APENDICES

UNIT ROOT TESTS

Null Hypothesis: D(ER) has a unit root
 Exogenous: None
 Lag Length: 0 (Automatic - based on SIC, maxlag=9)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-3.013779	0.0037
Test critical values:		
1% level	-2.634731	
5% level	-1.951000	
10% level	-1.610907	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(ER,2)
 Method: Least Squares
 Date: 08/03/17 Time: 16:39
 Sample (adjusted): 1983 2016

Null Hypothesis: D(GS) has a unit root
 Exogenous: None
 Lag Length: 0 (Automatic - based on SIC, maxlag=8)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-8.312574	0.0000
Test critical values: 1% level	-2.636901	
5% level	-1.951332	
10% level	-1.610747	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(GS,2)
 Method: Least Squares

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(LIR,2)
 Method: Least Squares
 Date: 08/03/17 Time: 16:42
 Sample (adjusted): 1983 2016
 Included observations: 34 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LIR(-1))	-1.134714	0.172390	-6.582230	0.0000
R-squared	0.567637	Mean dependent var		-0.017725
Adjusted R-squared	0.567637	S.D. dependent var		4.813024
S.E. of regression	3.164772	Akaike info criterion		5.171010
Sum squared resid	330.5209	Schwarz criterion		5.215903
Log likelihood	-86.90717	Hannan-Quinn criter.		5.186320
Durbin-Watson stat	2.056190			

Null Hypothesis: D(LIR) has a unit root
 Exogenous: None
 Lag Length: 0 (Automatic - based on SIC, maxlag=9)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-6.582230	0.0000
Test critical values: 1% level	-2.634731	
5% level	-1.951000	
10% level	-1.610907	

*MacKinnon (1996) one-sided p-values.

Null Hypothesis: D(TO) has a unit root
 Exogenous: None
 Lag Length: 0 (Automatic - based on SIC, maxlag=9)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-8.125847	0.0000
Test critical values: 1% level	-2.634731	
5% level	-1.951000	
10% level	-1.610907	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
 Dependent Variable: D(TO,2)
 Method: Least Squares
 Date: 08/03/17 Time: 16:45
 Sample (adjusted): 1983 2016
 Included observations: 34 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(TO(-1))	-1.342844	0.165256	-8.125847	0.0000
R-squared	0.666701	Mean dependent var		-0.278907
Adjusted R-squared	0.666701	S.D. dependent var		20.39353
S.E. of regression	11.77360	Akaike info criterion		7.798567
Sum squared resid	4574.380	Schwarz criterion		7.843459
Log likelihood	-131.5756	Hannan-Quinn criter.		7.813876
Durbin-Watson stat	1.909893			

Dependent Variable: GDP
 Method: Least Squares
 Date: 08/04/17 Time: 10:06
 Sample (adjusted): 1981 2015
 Included observations: 35 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ER	1.56E+09	1.60E+08	9.736542	0.0000
LIR	1.74E+09	2.30E+09	0.756947	0.4548
GS	3.66E+09	9.61E+08	3.807154	0.0006
TO	-1.07E+08	7.65E+08	-0.139628	0.8899
R-squared	0.767056	Mean dependent var		2.10E+11
Adjusted R-squared	0.744513	S.D. dependent var		1.15E+11
S.E. of regression	5.82E+10	Akaike info criterion		52.51878
Sum squared resid	1.05E+23	Schwarz criterion		52.69654
Log likelihood	-915.0787	Hannan-Quinn criter.		52.58014
Durbin-Watson stat	0.742004			

Null Hypothesis: D(GDP) has a unit root
 Exogenous: None
 Lag Length: 0 (Automatic - based on SIC, maxlag=9)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-2.806570	0.0064
Test critical values:		
1% level	-2.634731	
5% level	-1.951000	
10% level	-1.610907	

*MacKinnon (1996) one-sided p-values.