Journal of Economics and Sustainable Development
ISSN 2222-1700 (Paper) ISSN 2222-2855 (Online)
Vol.6, No.4, 2015 www.iiste.org

Foreign Exchange Market and the Nigerian Economy

Alabi Raphael Oladele
Department of Accounting and Finance, Ajayi Crowther University, PMB 1056, Oyo, Oyo State, Nigeria
E-mail ralpholad@yahoo.co.uk

Abstract
The paper examined the contributions of the Foreign Exchange market to the economic growth of Nigeria through empirical investigation. The variables used for the foreign exchange indices were the official exchange rate and the parallel exchange rate while the variable for the economic growth of Nigeria is the Gross Domestic product (GDP).Secondly data were extracted from the CBN'S Annual reports and Statements of Account spanning ten (10) years (1996-2005). The analytical tools used to analyze the data are the regression and correlation analyses and the F- ratio techniques. It was discovered that there is a very high positive correlation between the official exchange rate and the GDP, also between the parallel exchange rate and the GDP. The two rates jointly determined the movement of the GDP. Therefore, the researcher is of the view that proper management of the foreign exchange should be put in place, being a necessary stimulant for economic growth of Nigeria and can be effectively and efficiently managed if conducive environment is created for more investment to thrive and other related problems are given appropriate and deserving solutions.
Keywords: Exchange Rate, Economic Growth, Foreign Exchange, Foreign Exchange Market

INTRODUCTION

In International trade, goods and services are traded across national boundaries though the currency of one country is not acceptable in other countries as legal tender. This creates the problem of payment. For instance, Indian rupee is not acceptable as a medium of exchange in other countries like Nigeria nor is Nigerian naira acceptable in other countries like Japan. Therefore, the payments for imports have to be made in currency of the exporting country in the foreign exchange market. Foreign currencies are bought and sold in the foreign exchange market.

Nnanna (2005) describes the foreign exchange as the means of effecting payments for international transactions. It is made up of convertible currencies, interest bearing bonds, gold, Special Drawing Rights (SDR) of the International Monetary Fund (IMF) etc. that are generally accepted for the settlement of international trade and other external obligations. Among the key currencies are the United State Dollar, British Pound sterling, European Euro, Japanese Yen and the Canadian Dollar. The price of one currency in terms of another is called the exchange rate.

The foreign exchange market is a medium for buying and selling of foreign currencies. It is a medium of transaction or interaction between sellers and buyers of foreign exchange in a bid to negotiate a mutually acceptable price for the settlement of international transaction (Adekanye, 2010).The foreign exchange market is inextricably linked with both segments of the financial markets (i.e. money and capital markets). It is particularly striking in the money market where the determination of foreign exchange and money market rate are linked through interest rates.

The main players in the foreign exchange market are the Central Bank, Brokers, Commercial Banks, Exporters and Importers, Investors, Tourist and Immigrants, and these players make up the structure of the market. At the bottom of the foreign exchange market are the actual buyers and sellers of the foreign currencies. Hence, the foreign exchange management always aims at ensuring a stable exchange rate for the domestic currency, the smooth payment for international transactions and the maintenance of the favorable balance of payment position (Oloyede 1999).

The paper is therefore, out to examine the impact of the foreign exchange market on the economic growth of Nigeria between 1996 to 2005 by considering the rate at which the Nigeria Gross Domestic Product (GDP) moves in relation to the exchange rate of Naira to Dollar both at official and parallel rates.

CONCEPTUAL FRAMEWORK

THE STRUCTURE OF NIGERIA'S FOREIGN EXCHANGE MARKET

Nigeria's foreign exchange market is made up of three major segments, the official, autonomous (made up of inter-bank and bureau de exchange) and the parallel markets. The various segments of the markets evolved overtime owing to developments in the economy (Adekanye, 2010). The operations of the official foreign exchange market have metamorphosed over the years, particularly since the introduction of the exchange and trade liberalization policy in 1986, the official market was unified in 1987 when the exchange rate for public sector transactions was aligned with the commercial exchange rate.

The inter-bank market for free funds or privately sourced foreign exchange was at the early stage dominant as foreign exchange was centralized in the CBN under the 1962 Exchange Control Act. According to Ojo (1976), this is a market where banks extend credit facilities among themselves to meet very short- term liquidity obligations ranging from overnight borrowing up to one year. The market is characterized with rapid transmission of information on rates to all the participants, though dominated by few market leaders who influenced the borrowing rate.

However, the market became vibrant with the introduction of Second – tier Foreign Exchange Market (SFEM) and the permission granted banks by the CBN to affect foreign exchange dealings among themselves. The sharp practices which emanated from the system in form of round tripping of funds led to persistent instability in the exchange rate.

Consequently, the official foreign exchange market and the inter-bank market were merged in 1989 into an enlarged inter-bank foreign exchange market (IFEM). The bureau de change was established with the abolition of the inter-bank market in the same year to accord access to small users of foreign exchange market. Exchange rates in the bureau de change were market determined. In 1995, the official market evolved from a single to a dual exchange rate system in which a fixed exchange rate was applied for priority public sector transaction, while a market based exchange rate was used for private sector transactions through the Autonomous Foreign Exchange Market (AFEM) segments.

With the introduction of AFEM in 1995, Oloyede (1999) observed that the banks were once more allowed to engage in inter-bank dealings with only privately sourced foreign exchange. However, the operations of the AFEM failed to meet the objectives for which it was set up. For instance, the inter-bank market, which was supposed to source its funds privately, relied on the CBN. In effect, the CBN continued to fund the various foreign exchange market transactions.

As demand pressure continued to rise from this arrangement which has led to the depreciation of the naira at the foreign exchange market, some reforms were introduced. By January 1999, the fixed official rate for priority sector transactions were conducted at the AFEM market based rate (CBN briefs 204-2004 edition). Later in the same year the AFEM was replaced by the inter-bank foreign exchange market through the active participation of other players, such as, banks, oil companies, non-bank financial institutions, parastatals, bureau de change and private companies. The CBN was therefore, not expected to act as the major supplier of foreign exchange but as a participant who would only intervene in the buying and selling of foreign exchange as and when necessary.

The parallel market for foreign exchange has been in existence from the exchange control era (Oloyede, 1999). Since the market based reforms, the widening disparity in exchange rates has further strengthened the existence of the parallel market, owing largely to the windfall gains arising there from. The parallel market is a residual market as it accommodates spill over demands from other sources (Nnanna, 2005). It has been established that scarcity in the official source and bureaucratic procedures necessitated the growth and development of the parallel market. In any foreign exchange management framework, whether in developed or developing economies, speculations, arbitrage, hedging and portfolio switching are important elements in gauging the health and development of the foreign exchange market and by extension, the financial system.

THE EXCHANGE RATE MANAGEMENT IN NIGERIA

According to Nwankwo (1980), the fixed exchange rate regime was adopted in Nigeria shortly after independence in 1960 with the enactment of the Exchange control Act in 1962 where the CBN was vested with the authority to earn and disburse foreign exchange in the country. Following the realignment with the US Dollar and the exchange from pound to naira, as well as the resultant devaluation of the currency in 1973, the priority between the naira, the pound sterling and the US dollar was savoured, and the naira was pegged to a basket of currencies of Nigeria's major trading partners: United kingdom, United states of America, Germany, France, Japan, Switzerland and the Netherlands.

Between 1977 and 1981, a strict exchange control regime was administered to reduce the pressure on the external sector, but this failed to achieve the policy objective, hence, it was replaced with a managed exchange rate regime. Following the economic stabilization Act of 1982, the exchange rate was realigned and made more flexible, in order to stem frivolous demand for foreign exchange. These measures were sustained until 1986 when the Structural Adjustment Programme (SAP) was introduced.

The reforms under the SAP brought about market driven exchange rate regime with the introduction of the Second- Tier Foreign Exchange Market (SFEM). What followed SFEM was a regime of failed experiments of administrative management of the exchange rate of the naira (Oloyede, 2002). Amongst the various regimes of exchange rate management are the Dutch Auction system (DAS), April 1987; the Autonomous Foreign Exchange Market (AFEM), 1988; the inter- bank Foreign Exchange Market (IFEM), 1989; DAS, 1990 and "guided deregulation" based on a dual exchange rates regime. Following the failure of IFEM, the DAS was re-introduced for the third time on 22nd July, 2002.

The re- introduction of the Dutch Auction System (DAS) was as a result of the failure of the IFEM to

meet policy expectations. IFEM was characterized by multiple malpractices. The DAS was then introduced in order to enhance transparency in the management of foreign exchange and to achieve a realistic exchange rate for the naira and discouraged speculative demand for foreign exchange.
With the above reformation, it was hoped that the Nigeria foreign exchange market could perform optimally its desired functions, which include the following as stated by Jhingan (2004).
(i) To transfer funds through currency of a country to another currency;
(ii) To provide short-term credit to finance trade between countries through various credit instruments; and
(iii) To facilitate avoidance of foreign exchange risks or hedging or speculation.

PROBLEMS CONFRONTING THE EFFECTIVE PERFORMANCE OF FOREIGN EXCHANG MARKET
The Nigerian foreign exchange market, like the national economy, has been facing many problems. Some of the problems include the following.
(i) Macroeconomic instability have continued to be a hindrance to the development of the foreign exchange market. Macroeconomic policies that would ensure long term stability are essential in attracting sustainable durable investments. Frequent reversals of policies have often forced investors to disinvest by way of capital flight. The problems of lack of adequate co-ordination and harmonization of official and monetary policies have been clogging the wheel of progress of the market.
(ii) Loss of confidence in the banking system arising from distress and high interest rates discourage investors from patronizing the money market thereby passing through the parallel market (Nwankwo, 1980).
(iii) The poor state of public infrastructure, such as power, inadequate information technology, etc, which had to be provided adequately lead to higher operating cost and the high interest rate discourages the contract of business through the banking channel.
(iv) The nature of Nigerian economy having import dependent market is not ideal for an economy that aspires to grow. The reliance on oil alone has not allowed the foreign exchange market to perform optimally.
(v) Another problem facing the Nigerian foreign exchange market is lack of efficient payment system. The excessive use of cash in the economy over the years has slowed down the growth of the payment system. The current improvement through the cashless policy has been hampered by irregular functioning of network gadgets owned by the market operators.

METHODOLOGY
The data used for the study is the secondary one. The date were sourced from the Annual Reports and Statements of the Central Bank of Nigeria covering ten (10) years (1996-2005).
The instruments used in the research work were the multiple regression analysis and Pearson's correlation analytical tool to find out if there exist a relationship between the two exchange rates (Official and Parallel) and the economic growth indicator (the GDP). The Analysis of Variance (ANOVA) was also used to test the overall significance of the results.

VARIABLES FOR THE STUDY
The Variables used for the study are:
1. X_1 and X_2 =(Independent Variables) – representing the official exchange rate and parallel exchange rate respectively. These two variables are the capital market indicators used.
2. Y = (Dependent Variable) – This represent the Gross Domestic Product representing the economic growth indicator.
The variables are represented in a regression model as follows:

$Y = f(X_1, X_2)$

$Y = a + b_1X_1 + b_2 X_2 + U$

Where Y = GDP
X_1 = Official exchange rate (OER)
X_2 = Parallel exchange rate (PER)
a = The estimate of some unknown parameters
b= Regression co-efficient
U = Stochastic variable or error term

Hypothesis Testing
The hypotheses tested are:
(i) H_0: There is no significant relationship between the official exchange rate and the Gross Domestic Product.

H_1: There is a significant relationship between the official exchange rate and the Gross Domestic Product.

(ii) H_0: There is no significant relationship between the parallel market exchange rate and the Gross Domestic Product.

H_1: There is a significant relationship between the parallel market exchange rate and the Gross Domestic Product.

PRESENTATION AND ANALYSIS OF DATA

The data used was sourced from the various Annual reports and statement of Accounts of the Central Bank of Nigeria. These are shown in the table below:

TABLE 1: GROSS DOMESTIC PRODUCT (GDP) GROWTH RATE (AT CONSULTANT FACTOR PRICE)

YEAR	GDP ₦' BULLETIN	INCREASE IN GDP	% INCREASE IN GDP
1996	107.03	-	-
1997	110.13	3.10	2.896
1998	112.95	2.82	2.561
1999	116.14	3.19	2.824
2000	120.64	4.50	3.875
2001	125.35	4.71	3.094
2002	129.83	4.48	3.574
2003	392.77	262.94	202.526
2004	416.70	23.93	6.093
2005	560.43	143.73	34.492

Source – Computed from CBN Annual Reports and Statements of Account.

TABLE 2. EXCHANGE RATE MOVEMENT FOR THE PERIOD OF 10 YEARS (1996 – 2005) NAIRA/ US DOLLAR.

Year	Official Exchange Rate	% Increase	Parallel Exchange Rate	% Increase
1996	₦81.5	-	₦83.1	-
1997	82.0	0.613	85.0	2.286
1998	84.4	2.927	87.9	3.412
1999	92.7	9.834	99.2	12.856
2000	101.7	9.709	111.1	11.996
2001	111.9	10.029	132.4	19.172
2002	121.0	8.132	136.9	3.399
2003	129.3	6.860	141.4	3.287
2004	133.5	3.248	142.8	0.990
2005	131.66	-1.378	142.6	-0.140

Source – computed from CBN Annual Reports & Statements of Accounts.

COMPUTED RESULTS AND INTERPRETATIONS

The results obtain from the regression analysis; correlation analysis and the ANOVA estimate on the variables are as shown in the tables below:

TABLE 3. REGRESSION ANALYSIS OF GDP, OFFICIAL EXCHANGE RATE AND PARALLEL EXCHANGE RATE.

COEFFICIENTS[A]

Model			Standardized Coefficients		
		Standard Error	Beta		
Constant	-664.069	141.951		-4.678	.002
Official Exchange Rate		6.848	3.478	4.059	.005
Parallel Exchange Rate		5.663	2.720	3.175	.016

a. **Dependent Variable: Gross Domestic Product (GDP)**

Journal of Economics and Sustainable Development www.iiste.org
ISSN 2222-1700 (Paper) ISSN 2222-2855 (Online)
Vol.6, No.4, 2015

TABLE 4. COEFFICIENT OF DETERMINATION (R^2)

MODEL	R	R2	ADJUSTED R2	STANDARD ERROR OF THE ESTIMATE	DURBIN-WATSON
	.992	.851	.808	74.2125	2.468

a. **Dependent Variable: GDP**
b. **Predictors: Constant, Official ER, Parallel ER.**

TABLE 5. ANOVA [b]

Model	Sum of Squares	DF	Mean Square	F	P value
Regression	219915.9	2	109957.947	19.965	.001
Residual	38552.507	7	5507.501		
TOTAL	258468.4	9			

a. **Predictors: Constant, Official ER, Parallel ER**
b. **Dependent Variable: GDP**

Source: - Researcher's computation (2013) with the aid of SPSS.

From the model given as $Y = a + b_1x_\cdot + b_2x_2 + u$ Where

Y = GDP, X_1 = Official ER, X_2 = Parallel ER, U = Error term, a, $b_1$and and b_2 represent coefficients, R_2 = coefficient of determination or coefficient of variation, and D = Durbin Watson Statistic, the Regression formula can be written as:

$Y = -644.069 + 3.478\ x_1 + 2.702\ x_2 + u$

R2 = 85.1%, D = 2.468

Therefore, from the above results, it can be deduced that there is a positive correlation between the official exchange rate and the GDP, and so is the correlation between the parallel exchange rate and the GDP. T. Statistic from Table 3 reveals that official exchange rate.

(t – value = 4.059, p – value = 0.005) and parallel exchange rate

(t – value = 3.175, p – value = 0.016) are independently significant predicators of the GDP. Both official exchange rate and parallel exchange rate are significantly and positively correlated with GDP. F. statistic also shows that the model explaining relationship between Gross Domestic Product, official exchange rate and parallel exchange rate is significant (F value = 19.965, P value 0.001) with the existence of auto correlation D = 2.468. This model shows that both official exchange rate and parallel exchange rate are joint significant predictors of GDP (R^2 = 85.1 %). Therefore,(100-85.1) = 14.9% which cannot be explained within the model variables.

TABLE 6. CORRELATION ANALYSIS OF GDP, OFFICIAL ER AND PARALLEL ER.

	Official Exchange Rate	Parallel Exchange Rate
Person correlation	0.798	0.707
GDP: P. Value	0.006	0.022
Numbers of years	10.	10.

Source: Researchers computation (2013) with the aid of SPSS.

There is a significant relationship between official exchange rate and GDP. (P value 0.006 < 0.05). Thus the null hypothesis is rejected while the alternative hypothesis is accepted. The relationship is a positive and strong one (R = 0.798). This implies that the higher the official exchange rate, the higher the economic growth (GDP) of Nigeria.

There is also a significant relationship between parallel exchange rate and GDP. (P value 0.022 < 0.05). Thus, the null hypothesis is rejected while the alternative hypothesis is acceptable. The relationship is positive and strong (R = 0.707). This implies that the higher the parallel exchange rates the more the economic growth (GDP) of Nigeria.

CONCLUSION

Based on the analysis in the study, it shows that there was a constant increase in both the official exchange rate and parallel exchange rate. There were also noticeable increases in the movement of the Gross Domestic Product within the years examined. Of more importance was the high percentage of GDP increase of 1993 over that of 1992 budget year.

The researcher is of the opinion that the increase of 202.526% of GDP in 1993 over that of 1992 might be due to the determination of the then military government to conduct an election so that a democratically elected government can be put in place. The election came up on 12th June 1993 which was later annulled, though it was adjudged to be the best election so far in the history of Nigeria. There was much budget allocated to prosecute the election at the beginning of the year. All these accounted for the increase in the GDP.

Therefore, we can conclude that there is a significant relationship between official exchange rate and

GDP on one hand and that of parallel exchange rate and GDP on the other hand.

RECOMMENDATIONS

To minimize the benefits accruable from the Foreign Exchange Market activities as stimulants for the growth of Nigerian economy, it is pertinent to review all existing exchange rates determinants rules with the aim of abolishing the obnoxious ones that may likely impede the growth of the economy. This can be done by harmonizing all institutions that deal in foreign exchange under the same rules and regulations. The Nigerian government should continue to make the economy investment friendly so that more expatriate can come to invest in the country. This will improve the demand for the naira and hence increase in the GDP of the country. To achieve this, the Government should make sure it provides adequate security in order to secure lives and property of people.

REFERENCES

Adekanye F (2010). Elements of Banking in Nigeria, F and A Publishers Ltd. Lagos.
Central Bank annual reports and statementss of account (various versions)
Jhingan M.L (2004). Money, Banking, International Trade and Public Finance 7th Edition, New Delhi: Irinda Publications Ltd.
Nnanna O.J. et. al (2005) Financial Markets in Nigeria, A CBN publications.
Central Bank of Nigeria (1996 – 2005), Annual Reports and Statement of Accounts A CBN publications.
Nwankwo (G.O) (1980). Money and capital markets in Nigeria Today, University of Lagos Press, Nigeria.
Oloyede Bayo (1999) Principles of Money and Banking, Lagos: Forthright Publications.
Ojo A.T. (1976). The Nigerian Financial System, University of Wales Press.