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Exchange Rate Variation and Fiscal Balance in Nigeria: A Time Series Analysis

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Abstract

Exchange rate remains one of the principal determinants of a nation's external balance and fiscal status of most emerging economies. How better its fluctuation is managed has a long way to go with the performance of major macroeconomic variables in a country. It is behind this backdrop that this paper tries to examine the effects of exchange rate fluctuation on fiscal deficit crisis in Nigeria between 1980 and 2008. The period is so chosen as it covers the range of time that witnessed the greatest fluctuation's in the external value of the nation's legal tender (naira). The regression analysis reveals that exchange rate has impacted negatively on fiscal deficit over the period under consideration. The Augmented Dickey-Fuller (ADF) unit root test reveals that all the time series variables employed are non-stationary at levels; both the intercept and deterministic trend. Appropriate policies are therefore recommended on how best to reposition the economy in the face of continuing devaluation of naira.

Key word: Exchange rate, Fiscal deficit, Macroeconomic variables

1.0 INTRODUCTION

The objective of exchange rate policy is derived from the overall objectives of macro economic management to achieve internal and external balances in the medium term. Internal balance means, the level of economic activity is consistent with satisfactory control of inflation, while the external balance means balance of payment equilibrium or sustainable current account deficit is financed on a lasting basis by expected capital flows. Optimal exchange rate management should then involve selecting exchange rate targets to reconcile these macro policy objectives on average over medium term.

As the world gradually becomes a global community, the management of independent economy is becoming increasingly constrained by inevitable linkage between domestic and external macro economic variables. The strength of these linkages depends to a large extent on the degree of openness of the economy concerned, as well as the exchange rate regime. The exchange rate regime refers to the prevailing institutional framework

through which the international value of a country's currency is determined.

On a polar scale, there are two variants of exchange rate regime, fixed and flexible. A fixed exchange rate regime is taken as one which the authorities maintain external value of a country's currency within a defend margin of parity and use the means other than parity changes to adjust to external balance. On the other hand, flexible exchange rate regime, is one in which the international value of the domestic currency is predetermined purely by forces of demand and supply in the foreign exchange market. In a much theoretical analysis, it is a situation where the particular exchange rate is to reduce fiscal deficit to a sustainable level.

Given the constraints on the financing of fiscal operations faced by government at the beginning of the 1980's, the only means left for fiscal adjustment was a sharp reduction in fiscal deficit. The problem then turned to how to design a policy that would reduce fiscal deficit to a level that would preserve a minimum growth level. Such a policy comprises of

measures relating to exchange rate adjustment.

An increasing number of exchange rate adjustments have been carried out in many developing countries, especially Nigeria, as part of the structural adjustment programme and as part of measures to address the several problems of the flow of foreign exchange. These problems were either in the form of reduced inflow or distortions in allocation of foreign exchange. The administrative fixing of the naira exchange rate during the era of control encouraged discretionary practices in the system and also influenced large-scale outflow of foreign exchange from the economy because of the overvaluation of the domestic currency. The activities of speculators increased over time leading to a flourishing parallel market for foreign exchange and eventually resulted in disequilibrium in the official foreign exchange market. Where as, currency devaluation is normally implemented in response to balance of payments difficulties, it is expected to have

implications for other macroeconomic variables.

The objective of this paper is to examine the relationship between exchange rate fluctuation and fiscal deficit crises in Nigeria. The remaining part of this paper is divided into four sections. Section II presents literature review, Section III provides the methodological issues while Section IV analyses the results. The last section, Section V presents the concluding remarks and necessary recommendations.

2.0 LITERATURE REVIEW

2.1 CONCEPTUAL ISSUES IN EXCHANGE RATE

The exchange rate of a currency is the price of that currency in terms of another. It is a very important price, which links the domestic price with international price. It generally represents the number of units of domestic currency that exchanges for one unit of foreign currency. The way the exchange rate is quoted is a matter of convention. In a free market economy, the exchange rate is determined by the interplay of supply and demand for that currency,

some cases, the exchange rate is administratively administered. Just as the price of any commodity is determined by the interplay of demand and supply, the exchange rate is primarily determined by the supply and demand of foreign currencies.

The higher the demand for foreign exchange, the higher the foreign exchange rate and this will result in fall in the value of the domestic currency. The demand for foreign currency is represented by receipt from the import of goods and services. Receipts largely represent the supply of foreign currency from exports of goods and services which reflect the demand by foreigners for Nigerians goods and services. Supply could be augmented through loans and transfers from abroad. The supply of foreign currency is thus a function of that part of domestic output, which is exported, the quality of that output, its price as well as the level of income and liquidity among others. Real exchange rate is said to be a very important relative price in the economy. This is because changes on the real exchange rate influence foreign trade

flows, balance of payments, the level and structure of production and consumption and therefore employment, the allocation of resources in the economy and domestic prices (Khan and Lozondo, 1987).

Edwards (1989, 1994) argues that in the short run exchange rate responds to both real and monetary disturbances. In the short run, inconsistently expansive macro economic policies will generate a situation of real exchange rate misalignment, that is, overvaluation. The study concludes that a proper alignment of the real exchange rate is a major determinant of economic performance. Conversely, severe macro economic disequilibria and balance of payment crises in the developing countries are also often cited as the direct consequence of real exchange rate misalignment (Edwards 1989 and Dornbush 1982). In the long run, De Grauwe (1994) concluded that the correlation between money supply and the nominal exchange rate is relatively strong but tends to be weak in the short run.

Various regimes can be identified, these include extreme regimes (fixed

exchange rate), intermediate regimes (adjustable). There are numbers of theoretical arguments and experiences about the relative stability of the exchange rate under these regimes. However, the choice of regimes has great implications for the monetary policy of a country.

Precisely, a fixed exchange rate regime involves pegging of the exchange rate of the domestic currency to a reference currency. By implication, there is a tendency that monetary discretion may be lost. Thin, Nnnna (2000) opined that a fixed exchange rate regime has become increasingly hard to defend in a globalized financial market as the recent Argentine experience demonstrates.

For the floating exchange rate regime, it entails the *laissezfaire* method (that is, forces of demand and supply) will be used to determine exchange rate. A floating exchange rate regime does not only serve as a “shock assorber” for external shocks, it also allows monetary policy makers to have a full discretion in the manipulation of monetary aggregates. As a result, Nnanna (2000) stated that the

greatest benefit of the floating regime is monetary policy independence (defined in terms of country’s ability to control its monetary aggregates and influence its domestic interest rates).

2.2 EXCHANGE RATE POLICY IN NIGERIA

From 1962 to 1973, the Nigerian currency was pegged to the Pound sterling on a 1:1 ratio before the latter was devalued by 10%. Thereafter, the currency was allowed to move independently of the Pound Sterling. Also, the Naira was appreciated in order to source imports cheaply to implement development projects. This enhanced the reliance on imports, which eventually led to the depletion of external reserves. By 1981 there was gradual depreciation of the naira against the US dollar and/or the pound sterling based on whichever was stronger. This gradual depreciation policy, however, could not sufficiently reverse the sustained pressure on the external sector.

In 1978, the CBN applied the basket-of-currencies approach as given in

determining the exchange rate movement. The exchange rate during this period was determined by the relative strength of the currencies of the country's trading partners and the volume of trade with such countries. Weights were assigned to countries currencies with the dollar and Pounds sterling dominating the exchange rate calculation.

With the introduction of the Structural Adjustment Programme (SAP) in 1986, a flexible exchange rate mechanism was adopted with the floating of the naira in the second-tier system; the exchange rate was largely determined by the market forces. Although, these forces were expected to produce a clearing price as the basis for the allocation of foreign exchange, the monetary authorities still had the power to intervene in the market when necessary. Such intervention depended on the state of the balance of payments, the rate of inflation and domestic liquidity among other factors. Within the basic framework of market determination of the naira exchange rate, various methods have been

applied and some adjustments carried out to fine-tune the system.

At the commencement of the Second-tier Foreign Exchange Market (SFEM), a dual exchange rate for the allocation of foreign exchange was adopted. Pre-SFEM or transitional transactions, debt service payments, contributions to international organizations. The second-tier rate was determined by the SFEM. At, the average of the successful bids of authorized dealers was used to determine the exchange rate. Allocations were made at banks on predetermined quota basis. Owing to the downward trend of the nominal exchange rate, the average pricing method was abandoned in the auction and the marginal rate was adopted.

However, the method did not succeed in entrenching professional discipline in the system as the budding appeared unrelated to market situations. As such, the Dutch Auction System (DAS) was adopted in April 1987, with the hope of curtailing sharp practices. Under the DAS, individual banks bid rather than the use of rates were used to allocate foreign exchange, the

system however created the problem of multiplicity of rates, which resulted in the further depreciation of naira.

In July 1987, the first and second-tier markets were merged into an enlarged Foreign Exchange Market (FEM). Under FEM, all transactions were subjected to market forces. The merger increased demand pressures and contributed to the persistent depreciation of naira between July and November. In 1988, the inter bank market where banks were allowed to transact official foreign exchange business among themselves were separated from the official market. Subsequently, an autonomous market for privately sourced foreign exchange emerges with its interdependent rates. The autonomous market rules depreciated continuously, necessitating its subsequent merger with the FEM to form the Interbank Foreign Exchange Market (IFEM) in January 1989.

To further reduce exchange rate instability, the CBN modified the inter-bank procedures in December 1990 when the DAS was reintroduced. In August 1991, the modal weighted average method of

exchange rate determination was introduced. Under the new system, the rates tending towards the mode were applied to determine the market exchange rate. This method was designed to reduce wide fluctuations in the exchange rate.

The parallel market premium rose continuously, reaching 79.2% in February 1992, composed with 20.2% in 1990 and 35.5% in 1991, as against the conventional limit of 5.0%. As a result of persistent instability in the foreign exchange market, the CBN further deregulated the foreign exchange trading system in March 5, 1992. Under the new arrangement, the CBN bought and sold foreign exchange actively in the market and was also expected to supply in full all requests for foreign exchange made by the authorized dealers. The aim of the new mechanism was to narrow the parallel market premium and enhance the operational and allocative efficiency of the foreign exchange market. In pursuance of these objectives, the CBN adjusted its effective rate upward on March 5, 1992. The upward adjustment of the official exchange rate reduced the parallel

market premium. For a limited period, the parallel market premium declined gradually while effective demand by banks for foreign exchange fell short in supply. However, as a result of renewed demand pressures and speculative activities, the parallel market premium started to widen again. In 1993, the naira exchange rate was N21.99 to the dollar throughout the latter part of the year. However, the rates in the parallel market and the Bureau-de-charge almost doubled the rate at the official market.

Given the nature of the economy and the need for its recovery as well as the role of appropriate exchange rate in the recovery bid, new broad policies to stabilize and shore-up the value of the naira were delineated by the Federal Government in 1994 and among other policy measures, the naira exchange rate was retained at ₦21.99 to the US dollar. The policy stance in 1994 was aimed at instilling sanity in the foreign exchange market and encourage increase activities in the productive sectors of the economy. It was also expected that complementary monetary policy could

reduce the cost of funds to the manufacturing sector, thereby enhancing domestic production and dampening inflation.

Apart from the engagement of the official foreign exchange market in the parallel market, the bureau de change operators became buying agents of the CBN. Designated banks acted as agents of the CBN in the remittance of foreign exchange. Agencies of the government that earn foreign exchange in the course of their operations were mandated to surrender such funds to the Central bank. A foreign exchange allocation committee comprising representatives of the Central Bank, the Federal Government and the Organized private sector, was constituted early in 1994 to supervise the allocation of foreign exchange to designated sectors (agriculture, manufacturing, finished goods and services) on agreed percentage. Allocations were made to the beneficiaries through authorized dealers who bid on their behalf after making proper documentation and depositing the naira cover of such bids with the CBN.

In 1995, the policy of dual exchange rates was introduced. This was in response to the apparent adverse effect of the fixed exchange rate of non-oil reports, the productive sectors of the economy and the bureau de change. In 1994, the naira depreciated substantially in the parallel market. In order to stem down the negative developments and to achieve efficient allocation and utilization of scarce resources, an Autonomous Foreign Exchange Market (AFEM) for trading in privately sourced foreign exchange, was introduced in 1995, while the fixed exchange rate was reserved for selective public sector use. The exchange rates in AFEM were determined largely through market forces. The policy allowed for the Central Bank's intervention in the market in order to stabilize the rate and ensure movement towards the equilibrium. The bank sells foreign exchange to users through designated banks. The designated banks are not expected to add margins to the intervention rates in excess of the commissions on turnover as indicated in the banker's tariff. However, the utilization of funds is

expected to be fully documented and unutilized funds returned to the Central Bank within a specific period. Official funds through AFEM are not eligible for inter-bank transactions. However, autonomous funds were freely traded in the inter-bank market under the AFEM.

The exchange rate system introduced in 1995 resulted in a fairly stable exchange rate leading to its retention in 1996. In 1997, the policy thrust of guided deregulation through the AFEM was retained with some adjustments. Current account transactions were further liberalized. Although the dual exchange rate system was retained in 1998, its operation was modified. Unlike in the past, all ministries and parastatals were to source their foreign exchange requirement from AFEM. Thus, most of the transactions were conducted at the AFEM. Consequently, the fixed official exchange rate was applicable to only a small proportion of foreign exchange transaction. As such, the unification of the dual exchange rate was almost accomplished. At present, the dichotomy has been totally eliminated and

we now have only the IFEM rate applicable to all transactions.

2.3 CONCEPTUAL ISSUES ON FISCAL DEFICIT

In its essence, Fiscal deficit represents a measure of the excess demand pressures exerted by the public sector on the whole economy. Various definitions have been given to describe this phenomenon. Tanzi (1985), Bleger and Cheaty (1992), define fiscal deficit as the difference between budgetary government expenditure and revenue.

The definition outlined in the International Monetary Fund's draft manual of government finance statistics arrange the payment and receipt elements for government accounts as follows:

Fiscal deficit = (Revenue + Grants) – (Expenditure on goods and services + transfer payments + Net lending), or alternatively, fiscal deficit = borrowing + net decrease in cash holding

Fapojuwowo and Ogiogio (1995), define fiscal deficit as the Central Government expenditure net of central

revenue. These three definitions corresponds to what is referred to as the conventional definition of fiscal deficit. These definitions of fiscal deficit have been attacked by various economists on conceptual and theoretical grounds. Eisner (1989), contended that the official measure of the deficit (conventional deficit) does not provide an economically meaningful picture of government disowning. He suggested that an economically relevant measure of the “real deficit” would correspond to the change in the real value of government net debts. Accordingly he points to several ways in which the conventional deficits are conceptually flawed:

- i. The conventional deficit include government assets, sales and purchases which have no implication for the governments net debts/
- ii. Any government spending which can be classified as net investment should be excluded from deficit;
- iii. An appropriate deficit measure would count as “revenue”, any reduction in the real value of net government's debt attributable to

interest rate movements, which lower the debts market value, or to inflation, which lower its real value.]

iv. The “high employment” or “structural” deficit is superior to the actual deficit (conventional deficit) as an indication of government’s discretionary contribution to national dissaving.

As a result of these criticisms, other definitions of fiscal- deficit are being generated. Essentially, these definitions represent adjustments to the conventional deficit. The “current deficit” is the conventional deficit less investment expenditure and capital revenue (such as asset sales). This measures attempt to identify public savings. However, it has been criticized because the distinction between investment and current outlays is sometimes blurred.

The “domestic deficit” considers all those components of the conventional deficit that arise from transactions within the domestic economy and omits those affecting the balance of payments directly. This measures attempts to identify the

direct expansionary impact of the government on the local economy.

With the budget deficit aggregate demand, the reverse is also true. Calculations of “full employment and cyclical or structurally adjusted deficits” attempts to distinguish between changes in government revenue and expenditure associated with cyclical fluctuation in output and those changes that reflects discretionary policy decision of the fiscal stance. These deficits broadly correspond to the conventional deficit recalculated using potential output rather than actual output (in the case of full employment or high employment (deficit), or trend output (for cyclically adjusted deficit). The usefulness of these indicators is limited however, by difficulties in identifying potential or trend output, both of which are unobservable variables.

Interest payments on public debts are predetermined by the size of previous deficits. Their inclusion in the deficit indicator therefore does not permit the direct identification of the effect of current government policies on the economy. For

this purpose, the “primary deficit” (that is, excluding interest payments from the conventional deficit measured) has been widely used, particularly in debt over-hang countries. The measure cannot however, fully identify the scope of government discretion, since entitlements (such as unemployment benefit and the public sector wage bill may also be largely predetermined.

Another concept sometimes found useful is the first-order deficit. The concept is associated with targeting, (pinning down the actual deficit) and it arises from distinguishing between what has been called the first-order deficit and the subsequent increase in the deficit brought about by changes in inflation and domestic rates or other channels, which affects the fiscal deficits. For example, accelerating inflation erodes revenues because of collection lags, tax evasion or lack of indexation creating even larger deficits. This is known as Tanzi effect. So first order is the conventional deficit adjusted for Tanzi effect.

By far the most widely acclaimed relevant adjustment to the conventional deficit is the adjustment for inflation. When inflation is high and nominal interest rate vary with inflation, a large share of interest payment represents amortization of public debt because it compensates bondholders for the erosion in the real value of their assets. The conventional deficit concept places amortization “below the line” on the argument that, unless the sustainable level of public debts has changed, it will be automatically rolled over and hence does represent a new expenditure. In high inflation countries, therefore, the implicit inflation induced amortization is sometimes removed from the deficit calculations to avoid overestimating the true fiscal imbalance.

The “operational deficit” or “inflation adjusted deficit” which is the conventional deficit minus that part of the debt service that compensates debt holders for actual inflation, may be close approximation of the fiscal disequilibrium. One problem with this approach, however, is that the automatic roll over of the

inflation component of interest payments cannot be guaranteed, because the sustainable level of public debt is not independent of a country's stabilization efforts.

The conceptual problem of what constitutes an appropriate definition (measurement) of fiscal is an important factor. The discussion so far has shown the various adjustments that could be made to make it conventional. While these adjustments correct for some serious problems in the assessment of the impact of fiscal policy, it is clear that many measurement questions remain to be solved before such concepts of public sector deficit could become operational. However, it is conventional deficit that must be financed, not some intellectually elegant concept, which are neither precise nor generally accepted. The net sale of bond in normal values in a given year, either to citizens or to foreigner, is determined by the size of conventional fiscal deficits. To the extent that, it is the sale of bonds that creates pressures on capital markets or on exchange rates or no monetary aggregates, the

traditional measure of the deficits cannot be ignored. For Tanzi (1985) the conventional measure, despite its obvious shortcomings, is still preferable for assessing fiscal deficit. For third world countries like ours, empirical studies on this topic have generally used the conventional deficit [see Morrison(1982), Egwahide (1991), Fapojuwo and Ogiogio (1995), Okunroumu and Ojo (1992)]

3.0 METHODOLOGICAL ISSUES

This study involves largely the use of secondary data. The data utilized consists of annual observation on exchange rate and government fiscal deficit for 28 years i.e. (1980 – 2007). In analyzing the relationship between exchange rate and fiscal deficit, other macroeconomic indicators which are expected to influence changes in fiscal deficit are incorporated in the specified model below:

$$LNFD_t = \phi_0 + \phi_1 LNEXR_t + \phi_2 LNINF_t + \phi_3 LNDEBT_t + \phi_4 LNGEXP_t + \phi_5 LNGDP_t + u_t$$

Where: LNEXR =Natural log of Exchange Rate

LNFD = Natural log of Fiscal Deficit

LNINF = Natural log of Inflation Rate

LNDEBT= Natural log of Outstanding Domestic Debt

LNGEXP= Natural log of Government Expenditure

LNGDP= Natural log of Gross Domestic Product

ϕ_0 = Constant term

ϕ_{1-5} = Parameters

U_t = Error term

In relations to this study, we expect theoretically that government exchange rate to have positive effect on government fiscal deficit. This means that as exchange rate changes, it is expected to expand government fiscal deficit.

$$\frac{\partial LNFD}{\partial LNEXR} > 0$$

Also, we further examine the time series variables properties using the Augmented Dickey-Fuller (ADF) unit root test. This is to test for stationary at levels otherwise, the

time series will be subject to differencing to make it stationary.

4.0 EMPIRICAL ANALYSIS

The investigation of the relation between fiscal deficit and exchange rate fluctuations in Nigeria is analyzed based on the specified model in section three. In capturing the precise link, fiscal deficit is regressed on exchange rate and other macroeconomic variables like inflation rate, outstanding domestic debt, government expenditure and gross domestic product (GDP). The OLS is employed in estimating the model and the Augmented Dickey-Fuller (ADF) unit root test is used to examine the properties of the time series variables incorporated in this study.

4.1 MODEL ESTIMATION & ANALYSIS

The result of the estimated model that examines the relationship between exchange rate fluctuations and fiscal deficit in Nigeria from 1980 to 2007 is shown below:

Dependent variable: LNFID						
Method: Least square						
Sample: 1980-2007						
	C	LNEXR	LNINF	LNDEBT	LNGEXP	LNGDP
	0.756	-0.061	0.062	1.624	2.328	-2.793
Std.Error	5.842	0.535	0.247	0.809	1.020	0.855
t-stat	0.129	-0.114	0.252	2.008	2.281	-3.266
Prob	0.8982	0.9099	0.8036	0.0571	0.0326	0.0035
R-Square =0.7613			Adjusted R-Square =0.7071			
F-Statistic =14.0343			Durbin-Watson stat =2.2683			
Prob(F-Stat) =0.0000						

Source: Authors' Computation

The estimated model can be expressed as:

$$LNFID_t = 0.756 - 0.061LNEXR_t + 0.062LNINF_t + 1.624LNDEBT_t + 2.328LNGEXP_t - 2793LNGDP_{tt}$$

The estimated model reveals that exchange rate (LNEXR) and gross domestic product (LNGDP) exert negative influence on fiscal deficit by values of 0.061 and 2.793 respectively for a unit change in them. But, the effect of exchange rate (LNEXR) on fiscal deficit is not in conformity with the theoretical expectation. Likewise, inflation rate (LNINF), domestic debt (LNDEBT) and total government expenditure (LNGEXP) were found to exert positive influence in

increasing deficit in Nigeria by values of 0.062, 1.624 and 2.328 respectively. Also, their effects on fiscal deficit based on sign is in tandem with the apriori expectation.

The t-statistic is used to test for the individual significance of the estimated parameters for the regressors. The result reveals that only total government expenditure and gross domestic product have partial significant effect on fiscal deficit in Nigeria while the result of the F-statistic shows that the interaction of inflation rate (LNINF), exchange rate (LNEXR), domestic debt (LNDEBT), total government expenditure

(LNGEXP) and gross domestic product (LNGDP) have simultaneous significant effect on fiscal deficit in Nigeria during the review period.

Also, the adjusted R-square shows that 71% of the total variation in fiscal deficit over the years is explained by changes in exchange rate, inflation rate, domestic debt, government expenditure and gross domestic product in Nigeria.

The Durbin-Watson statistic reveals that there is presence of weak negative serial correlation among the residuals incorporated in the analysis to amount for other significant explained factors.

Therefore, the analysis of the relationship between fiscal deficit and exchange rate fluctuations in Nigeria has

shown that exchange rate and gross domestic product have impact in reducing fiscal deficit in Nigeria. Though, the negative effect of exchange rate on fiscal deficit is not in tandem with theoretical expectation and this might be as a result of the low share of foreign debt in the total components of national debt. While, inflation rate, domestic debt and total government expenditure have impacted in increasing the level of fiscal deficit in Nigeria between 1980 and 2007.

4.2 ADF UNIT ROOT TEST RESULT

The result for the of unit root in the time series variable using the Augmented Dickey-Fuller test developed by Dickey and Fuller (1979) is presented in the table below:

Variable	Level		First Difference		Order of Integration
	Intercept	Trend	Intercept	Trend	
LNFD	-1.2297 (2)	-3.4765** (1)	-5.8610* (1)	-5.7319* (1)	I(1)
LNEXR	-2.6401 (5)	-1.3454 (4)	-3.3688** (1)	-35818*** (1)	I(1)
LNINF	-3.2055**(1)	-3.1883 (1)	-5.3994* (1)	-5.4283* (1)	I(1)
LNDEBT	-3.6709** (9)	-23537 (3)	-3.4419** (1)	-3.8091** (3)	I(1)
LNGEXXP	-3.2018**(4)	-1.9379 (2)	-3.2259** (3)	-3.7924** (3)	I(1)
LNGDP	-0.9890 (8)	-2.7889 (5)	-3.5561** (1)	-3.4547***(1)	I(1)

Note: *, **, *** are significant at 1%, 5% and 10% Mckinnon critical values. The number of lags are in bracket and based on the minimum AIC and SIC.

The unit root test result reveals that all the time series variables-LNDFID, LNEXR, LNINF, LNDEBT, LNGEXP, and LNGDP- are non-stationary at level for both intercept and deterministic trend. In level, LNFID is stationary at 10%, LNDEBT, LNINF, and LNGEXP are stationary at 5% critical level for intercept model. But, all the series are found to reject the null hypothesis of non-stationary at first difference. Therefore, all the series are taken to be stationary at first difference for unit root models with intercept and trend.

5.0 CONCLUDING REMARKS AND POLICY RECOMMENDATION

5.1 CONCLUDING REMARKS

An attempt is made to validate or refute apriori expectation that continuous depreciation of currency causes an accumulation of huge fiscal deficit while continuous appreciation or overvaluation of currency is expected to have adverse effects on balance of payments and accumulation of fiscal deficit.

Contrary to expectation, the regression analysis reveals that negative relationship exists between exchange rate and fiscal deficit in Nigeria. This may be as a result of the composition of fiscal deficit in Nigeria in which the huge proportion constitute of local currency rather foreign currencies.

From the analysis, exchange rate devaluation on the average results is real depreciation which reduces government fiscal deficit. The result of this study, therefore shows that over-valuation of naira widens fiscal deficit while continuous depreciation contracts fiscal deficit.

5.2 POLICY RECOMMENDATION

From the above summary of findings, it should be stated clearly that exchange rate is not expected to be fixed over time. However, when it fluctuates, certain government policy measures should be put in place to see that it does not affect fiscal deficits negatively. Some of these policy measures include:

- I. Government should ensure proper management of her fiscal and

monetary policies to avoid unfavourable impacts of exchange rate fluctuations on fiscal deficits.

II. Government should provide clear and transparent signals and avoid the flip-flopping that has characterized the nation's monetary and foreign exchange policies.

III. Government should make foreign exchange accessible to domestic firms at concessionary rates so as to increase productivity, reduce balance of payment deficit and contracts exchange.

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