
Anthony Ilegbinosa Imoisi1
Uzomba Peter Chika2
Olatunji Lekan Moses3

ABSTRACT
The study examines the impact of interest and exchange rates on the Nigerian economy from 1975-2008. Data for the variables were collected from the CBN statistical bulletin. The study employs the ordinary least square (OLS) technique in the analysis but due to the fact that data are not stationary, a unit root test was employed; it further resorted to co-integration analysis which establishes the existence of a long run relationship between the variables in the models. From our findings we discovered that an increase in interest rate retards investment and subsequently economic growth; and the lag one of exchange rate shows the expected positive sign, implying that depreciation in exchange rate retarded growth from 1975 to 2008. Thus, interest and exchange rates exerted negative impact on the Nigerian economy during the period under review. Consequent upon this, the study therefore recommends among others; that interest and exchange rates should be given due consideration, because a competitive and stable interest and exchange rates will stimulate growth through investment, will strengthen the commercial policy of the country and diversify the productive base of the economy.

Key Words: Interest Rate, Exchange Rate, Ordinary Least Square, Economic Growth, Investment, Commercial Policy, Depreciation

INTRODUCTION
The real interest rate is an important determinant of the savings and investment behaviour of households and enterprises and therefore of key importance in terms of cyclical development and long-term economic growth. It is therefore vitally important to ask whether the real interest rate level is appropriate and how, if necessary, it can be influenced. Measuring real interest rates is, however, associated with a number of problems as the inflation expected during the investment period cannot be observed directly. Nonetheless, real interest rates contain important information about investment conditions in the capital market and the economy’s financing terms. This can be seen from an analysis of real interest rate movements over the past 40 years. An attempt by the central bank to control real interest rates gives rise to a number of problems and must ultimately be rejected. Monetary policy has a direct effect only on the short end of the interest rate spectrum. The attempt to use an expansionary monetary policy to drive long-term real interest rates below their equilibrium value would merely lead, in the medium term, to price increases which would, in turn, be reflected in a higher inflation risk premium and therefore in higher capital costs.

1 School of Graduate Studies
Following the prolonged use of direct controls, the pervasive government intervention in the financial system and the resultant stifling of competition and resource misallocation, a comprehensive economic re-constructuring programme was embarked upon in Nigeria in 1986 with increased reliance on market force. In line with this orientation, financial sector reforms were initiated to enhance competition, reduce distortion in investment decisions and evolve a sound and more efficient financial system. The reforms which focused on structural changes, monetary policy, interest rate administration and foreign exchange management, encompass both financial market liberalization and institutional building in the financial sector (CBN June 2009) series. In August, 1987, all controls on interest rates were removed, while the CBN adopted the policy of fixing only its minimum rediscount rate to indicate the desired direction of interest rate changes. This was modified in 1989, when the CBN issued further directives on the required spreads between deposit and lending rates. In 1991, the government prescribed a maximum margin between each bank's average cost of funds and its maximum lending rates. Later, the CBN prescribed savings deposit rate and a maximum lending rate. Partial deregulation was, however, restored in 1992 when financial institutions were only required to maintain a specified spread between their average cost of funds and their maximum lending rates. The removal of the maximum lending rate ceiling in 1993 saw interest rates rising to unprecedented levels in sympathy with rising inflation rate which rendered banks' high lending rates negative in real terms. In 1994, direct interest rate controls were restored. As these and other controls introduced in 1994 and 1995 had negative economic effects, total deregulation of interest rates was again adopted since October, 1996.

In a bid to enthronedsanity in the foreign exchange market, the CBN re-introduced the Dutch Auction System (DAS) in July 2002 with the objectives of realigning the exchange rate of the naira, conserving external reserves, enhancing market transparency and curbing capital flight from the country. Under this system, the Bank intervened twice weekly and end-users through authorized dealers bought foreign exchange at their bid rates. The rate that cleared the market (marginal rate) was adopted as the ruling rate exchange rate for the period, up to the next auction. DAS brought a good measure of stability in exchange rate as well a reduction in the arbitrage premium between the official and parallel market rates. Other measures adopted to enhance the operational efficiency of the foreign exchange market included the unfettered access granted holders of ordinary domiciliary accounts to their funds, while utilization of funds in the non-oil export domiciliary accounts were permitted for eligible transactions.

This study was prompted by the stress as a result of economic shocks of the 1980s in the financial system of most developing economies, more especially the financial depression that largely manifested through indiscriminate distortions of financial prices including interest and exchange rates which have tended to reduce the real rates of growth and performance of the Nigerian economy at large. However financial depression has retarded the development process as envisaged by Shaw (1973). Unfortunately, the Nigerian governments’ past efforts to promote economic development by controlling interest rates, exchange rates and securing cheap funding for their own activities have undermined financial development and subsequently, the unexpected performance of the Nigerian economy.

Consequently, most countries, both developed and developing have taken steps to deregulate their interest and exchange rates as part of reforms of the entire financial system. Such deregulation represents a policy response encompassing a package of measures to remove all undesirable state imposed constraints on the free working of the financial system. Some of such measures include the removal of interest rate ceilings and loosening of deposit and credit controls and institution of the autonomous foreign exchange market [Killick and Martin, 1990]. The Nigerian economy experienced financial depression in the early 1980's. There were rigid interest and exchange rate controls resulting in low direct investment, Funds were inadequate as there was a general lull in the economy, to the extent that the monetary and credit aggregates moved rather sluggishly. Consequently, there was a persistent pressure on the financial sector, which in turn necessitated the
deregulation of the financial system. In 1980’s, the Nigerian economy was in severe crisis from the ineffective structure of the economy, falling prices of crude oil in the international market and huge external debt stock. However, in order to ameliorate the problem of negative effects of the distortions in the movements of interest rate and exchange rate, financial sector reforms was introduced aimed at removing the pervasive distortions introduced into the system through prolonged use of direct controls and excessive government intervention in improving the efficiency of the financial system in the mobilization and distribution of financial resources from surplus unit to deficit unit for economic development in Nigeria. The overall objective of this research is to critically assess the impact of interest and exchange rates on the performance of the Nigerian economy, from 1975 to 2008. Specifically, the objectives of this study include: to determine the extent to which Interest rate has influenced the rate of domestic growth in the economy; to determine the impact of exchange rate on economic growth of Nigeria; and to examine the management of interest rate and exchange rate in Nigeria. Further, two research hypotheses were formulated in order to give the research work a clear understanding. The following hypotheses shall be tested: there is no significant relationship between interest rate and Gross Domestic Product in the economy; and there is no significant relationship between exchange rate and Gross Domestic Product in the economy.

REVIEW OF RELATED LITERATURE

Overtime studies have focused on interest and exchange rates in relation to the performance of the economy. The resolve for deregulation is informed by the Keynesian investment theory and by Mackinnon (1973) and Shaw (1973), saving and investment hypothesis. The Keynesian theory implies that low interest rate as a component of cost administered is detrimental to increase savings and hence investment demand. They argue that increase in the real interest rate will have strong positive effects on savings which can be utilized in investment, because those with excess liquidity will be encouraged to save because of the high interest rate, thus banks will have excess money to lend to investors for investment purpose thereby raising the volume of productive investment.

The empirical works by Mackinnon (1994) and Fry (1995) have shown evidence to support the hypothesis that interest rate determine investment. Thus, there are two transmission channels through which interest rate affects investment. They relate to investment as cost of capital. They also opined that interest rate encourages loans (external finance). Many studies have investigated these transmission mechanisms, which tallies with interest rate policy regimes articulated in Nigeria prior to and after the 1986 deregulation. Khat and Bathia (1993) used non-parametric method in his study of the relationship between interest rates and other macro-economic variables, including savings and investment. In his study he grouped Sixty-Four developing countries including Nigeria into three bases on the level of their real interest rate. He then computed economic rate among which were gross savings, income and investment for countries. Applying the Mann - Whitney test, he found that the impact of real interest was not significant for the three groups. However, his method of study was criticized by Balassa (1989) that a relationship has been established by the use of regression analysis.

Agu (1988) reviewed the determinants and structure of real interest rates in Nigeria from 1970 to 1985. He demonstrated the negative effect of low real interest rate on savings and investment using the usual Mckinnon financial repression diagram. His main conclusion was that the relationship between real interest rates, savings and investment is inconclusive. Ani (1988) opined that, the central Bank is two eager in its objective to accelerate the attainment of the objectives of the ongoing structural adjustment which among others, recommended the deregulation of the economy. He believes that the central bank is trying to deregulate the interest rate aim at strangulating a lot of industries particularly the small and medium scale industries because interest rate deregulation will lead to a very high lending rate which in his own opinion, the medium scale industries could not afford because of their limited capital and production base. The central bank in its policy increases
its lending rates from 11 to 15% in situation where Naira is undervalued. In view of these increase, the commercial banks increased their own lending rate between 17 to 22%. Also, the liquidity ratio was to be increased from 25% and their credit expansion reduced from 8 to 7.54%.

Ani (1988) thus maintained that the Central Bank of Nigeria measures would reduce the lending capacity of the banks and with a reduction in quantity of money in circulation there would be no money to save. Further, he was also of the view that money which would have been saved are already in the vault of the central bank in the form of drew back of money awaiting remittance to the second tier foreign exchange market, profit and petroleum subsidies. He thus concluded that, the fixing of interest rates at such a high level does not give Nigerian business any chance of competition with their foreign counterparts, Particularly, those from countries where interest rates are low compared to our own. Ojo (1988) share a similar view with Ani. He also believes that domestic financial markets are to some extent structurally oligopolistic, if interest rate is left uncontrolled, it might lead to a sharp increase in lending rate leading to increase in cost of capital and discouraging investment.

Nwankwo (1989), however, believes that interest rate deregulations will definitely lead to more efficient allocation of financial market resources because interest rate will now reflect scarcity and relative efficiency in different use. That is, only efficient investors will have access to scarce financial resources. Abiodun (1988), on the other hand believed that deregulation of interest rate is like a double-edged sword, which will either stimulate the economy or mar it. He asserted that the deregulation of interest rate will lead to an increase in interest rate, which will have a positive effect on savings as saving will be increased. However, he stated that high interest rate might not bring about cost-push inflation because borrower will pass high cost of borrowing to the customers by including it in their cost of production. He further stressed that high cost of borrowing will slow down investment, as borrowing will be greatly reduced. Hence investment in new business will reduce while existing ones may not be able to compete favourably for scarce finance due to high cost of borrowing. He opined that free marked should serve as check and balance and that some measure of control of interest rate will be beneficial if only to deliberately channel investment into the preferred sectors.

According to Kimberly Amadeo, Interest rates control the flow of money in the economy. High interest rates curb inflation, but also slow down the economy. Low interest rates stimulate the economy but could lead to inflation. Therefore, you need to know not only whether rates are increasing or decreasing, but what other economic indicators are saying. If interest rates are increasing and the Consumer Price Index (CPI) is decreasing, this means the economy is not overheating, which is good. But, if rates are increasing and GDP is decreasing, the economy is slowing too much, which could lead to recession. If rates are decreasing and GDP is increasing, the economy is speeding up, and that is good. But, if rates are decreasing and the CPI is increasing, the economy is headed towards inflation. High interest rates curb inflation. If interest rates stay too high for too long, it causes a recession, which create layoffs as businesses slow. If you are in a cyclical industry, or a vulnerable position, you could get laid off.

**Macroeconomic Implications of Nigeria’s Interest and Exchange Rate Management Experiences for the Real Sector of the Economy**

The real sector is here defined as consisting of the following sectors Agriculture, Manufacturing, Building & Construction, Mining & Quarrying. A review of financial statistics from the Word Bank and the Economist reveal that the real sector of Nigeria's economy has been the worse for it. Between 1993 and 1999, the manufacturing sector contributed less than 8% of GDP at 1984 constant factor cost. Interest rates on 2 years' government bonds, corporate bonds and 90 days' money market instruments is at least 4 times higher in Nigeria than in most developed countries of the world [including the G-8 countries]. On the other hand, GNP in absolute terms and per capita is lower in Nigeria than in some third world countries such as India, Malaysia, Egypt, Indonesia,
South Africa and Israel, to name a few. Even against some African countries, Nigeria's GNP Per Capita is one of the lowest, despite a relatively high GNP. With a GNP per head of US$292, the average Nigerian falls below the international poverty line of US$300 as approved by UNDP. This corroborates the World Bank position that Nigeria's per capital income is currently below the threshold of the Highly Indebted Poor Countries [HIPC]. In general, the macroeconomic indicators reveal that between 1995 and 1999, GDP growth rate was below 4%, industrial capacity utilization was below 40% and change in the exchange rate was as high as 92.8% in 2000.

In the external sector, insufficient supply of foreign exchange continues to mount pressures on Nigeria's exchange rate. The stringent documentation requirements in the official market crowds out some foreign exchange demands that are ultimately met in the parallel or black market. Thriving malpractices in the parallel market and the documentation requirements of the official market have both contrived to make patronage of the former increasingly attractive and profitable, further discouraging domestic production and worsening Nigeria's balance of payment position. The statistics are damming. It is clear that Nigeria is in dire need of rapid and sustainable rate of economic growth and development, if we are to reduce the level of human miseries pervading the country. (Elumelu, 2002). In view of the literature reviewed above, it is clear to establish that none actually used econometric transformation to test gross domestic product (proxy for economic growth), interest rate, exchange rate, total government expenditure, and domestic private investment in order to determine impact of interest and exchange rates on the performance on Nigerian economy from 1975 to 2008; hence that creates a gap in the literature. Thus, this present study is intended to fill this gap in the literature and as well make relevant contribution for policy formation and analysis.

RESEARCH METHODOLOGY

In this section, we will focus on how the study is being designed, data sourced, method of analysis and model specification.

Research Design/Method of Data Analysis

This study will employ econometric method of the Ordinary Least Square. (OLS) method in the analysis of the long run relationship between Exchange rate and Interest rate and Gross Domestic Product (GDP). The reason for the use OLS is based on its Best Linear Unbiased Estimator (BLUE) when compared with other estimators. After which, unit root test is conducted on the series to ascertain if they are stationary and co-integration test follow suit, to also ascertain the long run relationship between Exchange rate, Interest rate and Gross Domestic Product (GDP). This now lead us to error correction representation equation to enable us capture the static (long run) and dynamic (short run) models. These models now form the basis for our analysis. The hypotheses are tested using the statistical and econometric tools. The Data required for this study are Gross domestic product (proxy for economic growth), Interest rate, Exchange rate, Total Government expenditure, and Domestic private investment. Further, the data were sourced from making use of secondary data. The data include data from journals especially CBN's economic and financial review papers, brief, occasional papers, annual reports and statistical bulletins and economic reports. Others are text books, newspapers, journals and magazines.

Model Specification

The models are specified as follows:

Model 1

\[ GDP = f (INT, TGX, DPI) \] .................. (1)

Econometric transformation of the model:

\[ \log (GDP) = a_0 + a_1 \log (INT) + a_2 \log (TGX) + a_3 \log (DPI) + U \] .................. (2)
Apriori expectation $a_1, a_3 < 0, a_2 > 0$

**Model 2**

$$\text{Log (GDP)} = f (\text{EXR}, \text{TGX}, \text{DPI}) \ldots \ldots (3)$$

Econometric transformation of the model:

$$\text{Log (GDP)} = \beta_0 + \beta_1 \text{log (EXR)} + \beta_2 \text{log (TGX)} + \beta_3 \text{log (DPI)} + U \ldots \ldots \ldots \ldots \ldots \ldots (4)$$

Apriori expectation $\beta_1 < 0, \beta_2, \beta_3 > 0$

Where:

$\text{GDP}$ = Gross Domestic Product as Proxy for Economic Growth (N' Million)

$\text{INT}$ = Prime Interest Rate (%)

$\text{TGX}$ = Total government expenditure (N' Million)

$\text{DPI}$ = Domestic Private Investment (N' Million)

$\text{EXR}$ = Exchange rate of the naira to the US Dollar.

$U$ = Error term or stochastic term.

**DATA PRESENTATION AND ANALYSIS OF REGRESSION RESULTS**

In order to validate or reject the hypotheses earlier formulated in this study, there is the need to test such hypotheses and thus, arrive at valid conclusions. The data employed in this study include series on Gross Domestic Product, Interest Rate, Exchange Rate, Total Government Expenditure and Domestic Private Investment. The period spans from 1975 to 2008. Meanwhile, the hypotheses of this study are as follows: there is no significant relationship between Interest rate and Gross Domestic Product; and there is no significant relationship between Exchange rate and Gross Domestic product.

As earlier stated, the long run estimation of the models were estimated using OLS but only the parsimonious error correction model of the functions form the basis of our analysis.

**Table 1. Ordinary Least Square Regression Result Dependent Variable: Log GDP**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>T-Statistics</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>8.427893</td>
<td>10.39613</td>
<td>0.0000</td>
</tr>
<tr>
<td>Log (INT)</td>
<td>0.722640</td>
<td>2.461005</td>
<td>0.0198</td>
</tr>
<tr>
<td>Log (TGX)</td>
<td>0.918832</td>
<td>3.483807</td>
<td>0.0015</td>
</tr>
<tr>
<td>Log DPI</td>
<td>-0.817517</td>
<td>2.589563</td>
<td>0.0147</td>
</tr>
</tbody>
</table>

$R^2 = 0.75, \text{DW-Stat} = 1.09, \text{F-Stat} = 30.4$

Source: Researchers’ Computation, 2012, Adapted from Regression Result using E – view 7.1

From Table 1 above, it is observed that the variables-interest rate, total government spending and domestic private investment are significant at 2%, 1% and 2% respectively. The apriori expectations of the variables are not satisfied except total government spending. 75% variation in gross domestic product is attributed to the variables mentioned above. There is high presence of serial correlation. Also table 2 below shows that the apriori expectations of the variables are satisfied except domestic private investment. The variables are significant except exchange rate. 72% variation in gross domestic product is attributed to the variables aforementioned. There is high presence of autocorrelation. Hence the wrong sign of interest rate and domestic private investment and high presence of serial correlation as seen in table 1 and 2 respectively are attributed to stationarity problem. Thus, the unit root test was carried out.
Table-2. Test for Unit Root

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>T-Statistics</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>12.22932</td>
<td>6.119148</td>
<td>0.0000</td>
</tr>
<tr>
<td>Log (INT)</td>
<td>0.310552</td>
<td>1.491652</td>
<td>0.1462</td>
</tr>
<tr>
<td>Log (TGX)</td>
<td>0.750328</td>
<td>2.142163</td>
<td>0.0404</td>
</tr>
<tr>
<td>Log (DPI)</td>
<td>-0.862517</td>
<td>-2.590196</td>
<td>0.0147</td>
</tr>
</tbody>
</table>

R² = 0.72, DW-Stat = 0.08, F-Stat = 26.19
Source: Researchers’ Computation, 2012, Adapted from Regression Result using E-view 7.1

The result reported in table 1 below shows ADF-unit root test of the relevant data. The results indicate that all the series are stationary at first difference 1(1).

Table-3. ADF Unit Root Test Result 1975 – 2008

<table>
<thead>
<tr>
<th>Variables</th>
<th>ADF Level</th>
<th>ADF 1STDifference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log (GDP)</td>
<td>-1.880948</td>
<td>-4.263855</td>
</tr>
<tr>
<td>Log (INT)</td>
<td>-1.619431</td>
<td>-6.771484</td>
</tr>
<tr>
<td>Log (TGX)</td>
<td>0.762184</td>
<td>-3.943198</td>
</tr>
<tr>
<td>Log (DPI)</td>
<td>-0.201887</td>
<td>-3.190302</td>
</tr>
<tr>
<td>Log (EXR)</td>
<td>-0.660845</td>
<td>-3.431173</td>
</tr>
</tbody>
</table>

Critical Values: 1% (-3.6496), 5% (-2.9558) and 10% (-2.6164)
Source: Researchers’ Computation 2012, Adapted from Regression Result using E-view 7.1

Table-4. ADF Test OF Residual of the Model (Co-integration test)

<table>
<thead>
<tr>
<th>Model</th>
<th>Level</th>
<th>1STDifference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-2.995360</td>
<td>-4.615970</td>
</tr>
<tr>
<td>2</td>
<td>-2.831712</td>
<td>-4.188276</td>
</tr>
</tbody>
</table>

Critical Values: 1% (-3.6496), 5% (-2.9558) and 10% (-2.6164)
Source: Researchers’ Computation 2012, Adapted from Regression Result using E-view 7.1

Co-integration Test Results

Co-integration tests are carried out on the models, using ADF test on the residual of the models. The results presented in table 4 above shows that the hypothesis of no co-integrating vector is rejected at level and interpret as evidence of co-integrating vector at one percent significant level. The conclusion arrived from this result is that there exists a long run relationship between the variables in the models. Based on this, we proceed to estimate correction models.

Table-5. Parsimonious Error Correction Model of Model I

<table>
<thead>
<tr>
<th>Variable</th>
<th>Co-efficient</th>
<th>T-Statistic</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-0.369028</td>
<td>-2.888115</td>
<td>0.0113</td>
</tr>
<tr>
<td>D(LOG(GDP(-1)))</td>
<td>1.093800</td>
<td>5.884681</td>
<td>0.0000</td>
</tr>
<tr>
<td>D(LOG(INT(-1)))</td>
<td>-1.182468</td>
<td>-5.220953</td>
<td>0.0001</td>
</tr>
<tr>
<td>D(LOG(INT(-2)))</td>
<td>-0.545359</td>
<td>-3.605867</td>
<td>0.0026</td>
</tr>
<tr>
<td>D(LOG(TGX))</td>
<td>0.837642</td>
<td>3.485250</td>
<td>0.0033</td>
</tr>
<tr>
<td>D(LOG(DPI(-1)))</td>
<td>0.900743</td>
<td>4.220799</td>
<td>0.0007</td>
</tr>
<tr>
<td>ECM(-1)</td>
<td>-1.131726</td>
<td>-6.781003</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

R² = 0.88, adjusted RL = 0.78, DW-Stat = 2.01, F-Stat = 8.45.
Source: Researchers’ Computation 2012, Adapted from Regression Result using E-view 7.1
Interpretation of Result

As shown from table 5 above, it presents economic growth (GDP) in relation to interest rate. Total government expenditure and domestic private investment. The expected signs of the parameters are satisfied and, also the ECM (-1) has the expected sign and is highly significant. The result shows that one period lag of interest rate is negatively related to economic growth (GDP). This implies that a percentage increase in interest rate (INT) leads to a depression of investment, which in turn leads to a fall in economic growth and vice versa. The result also shows that a percentage increase in Total government expenditure (TGX) improves economic growth are attributed to INT, TGX and DPI during the period under review. The result shows minimal autocorrelation. The test of significance of the parameter estimates show that the variables are significant at 1% level. F-stat (8.45) shows that the overall model is statistically significant at 1% level.

Table 6. Parsimonious Error Correction Model of Model II

<table>
<thead>
<tr>
<th>Variable</th>
<th>Co-efficient</th>
<th>T-Statistics</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-0.264700</td>
<td>-1.947033</td>
<td>0.0719</td>
</tr>
<tr>
<td>D(LOG(GDP(-1)))</td>
<td>0.917047</td>
<td>4.432366</td>
<td>0.0006</td>
</tr>
<tr>
<td>D(LOG(EXR)</td>
<td>0.359137</td>
<td>2.480879</td>
<td>0.0264</td>
</tr>
<tr>
<td>D(LOG(EXR(-1)))</td>
<td>-0.745133</td>
<td>-4.489711</td>
<td>0.0005</td>
</tr>
<tr>
<td>D(LOG(EXR(-2)))</td>
<td>-0.511258</td>
<td>-2.517288</td>
<td>0.0246</td>
</tr>
<tr>
<td>D(LOG(TGX(-1)))</td>
<td>0.608843</td>
<td>2.339392</td>
<td>0.0347</td>
</tr>
<tr>
<td>D(LOG(DPI)</td>
<td>0.627134</td>
<td>2.853886</td>
<td>0.0607</td>
</tr>
<tr>
<td>ECM(-1)</td>
<td>-1.209992</td>
<td>-5.944174</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

R² = 0.82, adjusted R² = 0.64, DW-Stat = 1.98, F-Stat = 4.6

Source: Researchers’ Computation 2012, Adapted from Regression Result using E-view 7.1

Table 4.6 above also presents economic growth (GDP) in relation to Exchange rate, total government expenditure and domestic private investment. The expected signs are satisfied including ECM (-1) except the current exchange rate estimate. This implies that a percentage depreciation of naira in relation to dollar does not lead to a fall in growth instantly. Only about 64% varations in Gross Domestic Product are attributed to Exchange rate, Total Government Expenditure and Domestic Private Investment during the period under review. The result shows minimal autocorrelation. The test of significance of the parameters show that lag one of TGX, DPI and lag one period of exchange rate, current exchange rate are significant at 1%, 5% and 10% respectively. F-Stat (4.829) shows that the overall model is statistically significant at 1% level.

Discussion of Findings

With respect to table 4.5, Interest rate shows the expected negative sign. Increase in interest rate inhibits investment. An increase in interest rate retards investment and economic growth. There is need therefore for proper regulation of monetary policy-in area of reserve requirement, Open Market Operation (OMO) etc. This will create an efficient fund mobilization mechanism by the financial sector to stimulate the required level of investment and economic growth. The reforms of the financial sector in Nigeria, which started since 1986 were geared towards achieving this objective. Also in table 4.6, lag one of Exchange rate shows the expected positive sign. This implies that Exchange rate depreciation retards growth in the period under review. The result may be because of the instability experience within the period under-review. The coefficients of ECM (-1) in the models specify that changes in GDP respond to a deviation from the long run equilibrium. This means that the disequilibrium in previous year is correct in the current year.
CONCLUSION

The study seeks to establish a nexus between interest rate, exchange rate and Gross Domestic Product for the period 1975-2008. Interest and exchange rates are important instruments of economic management in Nigeria. For a greater number of years, interest and exchange rates were controlled and kept low often below the market determined rate. However, the economic reforms of 1986, the subsequent financial sector liberalization and indeed the interest and exchange rate deregulation in 1987 saw an upward movement in domestic interest and exchange rates. The aim was to ensure that both interest and exchange rates were market determined. Unfortunately, developments after then shows that interest rate has been high while exchange rate in relation to other major currencies in the world like US Dollars, Euro, Great Britain Pounds has continued to fall below appreciable level. These affected the level of funds available for investment and the general welfare of the economy.

The present administration is taking urgent steps to address the issue of high interest rate through the financial sector reforms (Bank re-capitalization) which has reduced the number of banks from 83 to 25, CBN bail-out funds of over N400 Million given to 4 ailing indigenous banks (Oceanic, Finbank, Unity Bank and Union Bank) to boost their operations, introduction of the Central Bank of Nigeria/Bank of Industry intervention fund of over N200 Billion for local manufacturing companies at a reduced interest rate of 8% per annum with 3 months moratorium period to boost local production and discourage importation, reduction in the monetary policy rate from 13% to 6.25%, commencement of the operations of the Asset Management Company of Nigeria (AMCOM) which is poised to inject an estimated amount of N618.4 Billion into the system in acquisition of banks margin related loans before the end of 2011, the current plan to increase the level of guaranteed deposit in failed banks ranging from N200,000 to N500,000 for commercial banks and from N100,000 to N250,000 for micro finance banks which will help to rekindle depositors confidence in the sector is commendable (First Bank Research, 2010). All these policy initiatives if well implemented to the latter will have a positive impact on the economy, but what we would say at this juncture is that, policy failures in Nigeria are mainly due to inefficiency of the institutional framework through which they are formulated and implemented. To this aim, more needs to be done to enthrone stable and competitive interest and exchange rates, strengthen our import-restriction policies, improvement of socio-economic overheads and ensuring stable political climate that will help build the confidence of investors both local and foreign, in the Nigerian Economy. However, we come to the conclusion that the negative performance of the economy has been attributed some factors particularly; government large fiscal deficit. To this extent, keeping a firm check on government spending is a key to achieving macroeconomic stability in Nigeria.

REFERENCES