Foreign Debt Management and the Development of Nigeria Economy

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Abstract: This study reviews the effect of foreign debt management on sustainable economic development with specific emphasis on Nigeria over the period of 1979–2009. Data analysis shows that access to external finances strongly influence the economic development process of Nigeria and other nations. The ordinary least square multiple regression analytical method is use to examine the relationship between external debt management and economic development, while error correction model (ECM) is use to determine the long-run and short run dynamics among the relevant variables. The empirical result shows that there is a significant relationship between external debt and economic development in Nigeria, external debt stock contributes significantly to Nigeria GDP while debt servicing had a negative but insignificant impact on Nigeria GDP. The results also reveal that external debt stock and debt servicing had a mix delay effect on the Nigerian economy. Debt can only be productive if well managed in an environment with sound macroeconomic policies which is an important prerequisite for the development of an economy.

Keywords: Debt management; Economic development; ECM; Nigeria

JEL Classifications: F21, F34; O11

1. Introduction

Foreign debt is one of the sources of financing capital formation in any economy. It is generally expected that Nigeria and other developing countries, facing scarcity of capital, will acquire external debt to supplement domestic saving (Pattillo et al. 2002). The rate at which nations borrow abroad depends on the links among foreign and domestic saving, investment, and economic growth. The main lesson of the standard “growth with debt” literature is that a country should borrow abroad as long as the capital acquired produces a rate of return that is higher than the cost of the foreign borrowing. In that case, the borrowing country is increasing capacity and expanding output with the aid of foreign savings.

Adepoju, et al.(2007) noted that developing countries in Africa are characterized by inadequate internal capital formation due to the vicious circle of low productivity, low income, and low savings. Therefore, this situation calls for technical, managerial, and financial support from western countries to bridge the resource gap. However, foreign debt acts as a major constraint to capital formation in developing nations. The burden and dynamics of foreign debt show that they do not contribute significantly to financing economic development in developing countries. In view of the
above, foreign debt becomes a self-perpetuating mechanism of poverty aggravation, and a constant impediment to development in developing economies.

Ayadi (1999) and Ayadi et al. (2003; 2008) opined that like most developing countries of the world, Nigeria relies substantially on foreign loans for financing its development projects. Besides, foreign debt burden had dramatically limited developing countries’ participation in the world economy and the attendant debt servicing obligations continue to manifest as an impediment to economic growth and development. Foreign debt remains one of the major economic policy issues confronting Nigeria and other developing economies globally. The debt levels, particularly in Nigeria and other Highly Indebted Poor Countries (HIPC), have for a long time raised major concerns among international financial institutions and bilateral lenders, resulting in several initiative from the developed countries and from the international financial institutions to ease the debt burden that was threatening to cripple the economies of HIPC (Jakob, 2004). The initiatives range from measures to ease the debt burden through debt rescheduling to outright debt forgiveness.

It is no exaggeration to claim that Nigeria’s huge foreign debt burden was one of the hard knots of the Structural Adjustment Programme (SAP) introduced in 1986 by the Babaginda administration. From a trivial debt stock of $1billion in 1971, Nigeria had towards the end of 2005 incurred close to $40 billion debt with over $30 billion of the amount owed the Paris Club alone. The persistence development on Nigeria’s external debt raised concerns regarding its impact on economic development and fears are being express about the debt sustainability. The high level of debt service payment prevented the country from embarking on larger volume of domestic investment, which would have enhanced economic growth and development. With the recent debt forgiveness granted to Nigeria, one would expect the economic process of the country to be increased. However, given the number of years since Nigeria had been independent and the substantial debt it had incurred, coupled with the existing weak institutions, one can claim that the entire spectrum of the economy has not been sufficiently active, especially when compared with the economy of similar or lesser aged developing countries.

2. Literature Review

The reason for opting for external finance, as a means of ensuring sustained development rather than utilizing only domestic resources, is provided by the ‘dual gap’ theory. The theory postulates that investment is a function of savings, and that in developing countries, the level of domestic savings is not sufficient to fund the needed investment to ensure economic development. Thus, it is logical to seek the use of complementary external goods and services. The acquisition of external funds, however, depends on the relationship between domestic savings, foreign funds, investment, and economic growth. A guiding principle on when to borrow is a simple one. Borrow abroad so far as the funds acquired generates a rate of return that is higher than the cost of borrowing the foreign funds (Ajayi and Khan, 2000).

From the literatures, the channels through which indebtedness works against growth and development are identified as: current stock of external debt as a ratio of GDP, which may stimulate economic growth and development; past debt accumulation, which captures the debt overhang and therefore deters economic growth and development; and debt service ratio to capture the crowding out effects. Debt service payment reduces export earnings and other resources and therefore retards economic growth and development. According to Elbadawi (1996), these debt burden indicators also affect growth and development indirectly through their impact on public sector expenditures. The effect was strongest when private debt rather than total debt was used as a measure of the debt overhang. Iyoha (1999) found similar results for Sub-Saharan African (SSA) countries, and concluded that heavy debt burden acts to reduce investment through both the debt overhang and the crowding out effect.
Elbadawi (1997) also confirmed a debt overhang effect on economic growth and development using cross-section regression for 99 developing countries spanning SSA, Latin America, Asia and Middle East. They identified three direct channels in which indebtedness in sub Sahara Africa works against growth: current debt inflows as a ratio of GDP (which should stimulate economic growth and development), past debt accumulation (capturing debt overhang) and debt servicing ratio. The fourth indirect channel works through the impacts of the above channels on public sector expenditures. They found that debt accumulation deters growth and development while debt stock spurs growth and development.

However, Cohen’s (1995) results on the correlation between developing countries debt and investment in the 1980s showed that the level of debt does not appear to have much power to explain the slowdown of investment in developing countries during the 1980s. He found that the actual service of debt crowded out investment and also maintained that external debt at low levels is positively related to economic growth but at higher levels the requirements of debt service obligations complicate debt accumulation thereby rendering the assumption of a positive correlation of external debt and economic growth of the neoclassicists unrealistic.

Many empirical studies have investigated the effect of external debt on economic growth and development, some end up finding a negative impact on economic growth while others do not find any significant relationship between economic growth and external debt. These studies focused on assessing the impact of external debt on per capita GDP, real GDP, GDP growth rate, long-term consumption pattern and capital formation. Nevertheless, the findings of these studies are mixed; therefore, in these circumstances it is hard to say whether external debt has positive, negative or any significant impact on economic growth and development.

The empirical evidence generally confirms the debt overhang hypothesis, even if the link between debt and economic growth and development is not perfectly defined, because the relative incidence of the debt variables and the magnitude of effects differ across different studies. Some authors such as Pattillo (2002) show how the stock of debt is the reason for a slow growth, while others like Chowdhury (2004) find that both the debt burden and the debt service obligations squeeze investment and the economic performance.

Among those pioneering studies in this regard includes Cohen (1995) that used a larger data set of eighty-one developing countries over a period of 1965–1987 and did not find any evidence in favor of a negative relationship between external debt and economic growth. Chowdhury (1994) attempted to resolve the controversy of cause and effect relationship between external debt and economic growth, by conducting granger causality tests for Asian and Pacific Countries over a period of 1970-1988. He found that both public and private external debt, have a relatively very small impact on GNP and both have opposite signs. He found that any increase in GNP leads to a higher level of external debt, but overall external debt does not have any negative impact on economic growth. Furthermore, Iyoha (1999) used simulation approach to investigate the impact of external debt on economic growth in sub-Saharan African countries estimating a small macro-econometric model for the period 1970–1994. He found an inverse relationship between debt overhang, crowding out and investment, thereby concluding that external debt depresses investment through both a “disincentive” effect and a “crowding out” effect, thus affecting economic growth.

Focusing on one of the HIPC countries, Were (2001) analyzed the debt overhang problem in Kenya and tried to find evidence for its impact on economic growth. Using time series data from 1970–1995, this study did not find any adverse impact of debt servicing on economic growth; however, it confirmed some crowding-out effects on private investment. Furthermore, employing data from fifty-nine developing and twenty-four industrial countries over a period of 1970–2002, Schclarek (2004) could not find any evidence that external debt may affect total factor productivity. However, he found that in case of developing countries, higher growth rate is associated with a
relatively lower external debt levels and this negative relationship is mainly driven by public external debt rather than private external debt.

Similarly, to investigate the impact of external indebtedness on economic growth for Sudan, Mohamed (2005) used a time series data from 1978–2002. He used growth rate of real export earnings to capture the impact of export promotion strategy, while was used inflation to capture the impact of macroeconomic policy. He concluded that external debt and inflation deter economic growth, while, real exports have positive and significant impact on economic growth. Mariano and Delano (2006) used standard neo-classical growth model to explore the dynamics of capital accumulation, external debt and economic growth for Philippines over a period of 2000–2003. They used goal seek technique to estimate the steady state ratio of external debt to GDP, associated with doubling the per capita income. Additionally, he also tried to estimate the optimal savings rate that is “consistent with maximum real consumption per unit of effective labor in the long run”. He concluded that higher ratio of change in interest rate spread to change in debt-to-GDP lowers welfare in long run.


3. Research Methodology

This study adopts a regression analysis to empirically investigate the impact of foreign debt management on economic development in Nigeria. The impact of foreign debt and external debt service payment on economic development was examined using regression analysis and it was based on the Error Correction Model (ECM) method. This study covers the years 1979 –2009 which is a period of thirty-one (31) years. This period is believed to be long enough to capture the long-run relationship between foreign debt management and economic development in Nigeria. We undertake a specification of an economic model, which help to empirically establish the impact of foreign debt management on economic development in Nigeria. The variables were first subjected to stationarity tests using unit root test since the assumptions of the classical regression model require variables to be stationary and that errors have a zero mean and finite variance. The unit root tests were evaluated using the Augmented Dickey-Fuller (ADF) following Dickey and Fuller (1979, 1981) and Phillips-Peron (PP) test according to Phillips and Peron (1988). The general form of these tests is estimated in the following forms:

\[ \Delta Y_t = b_0 + \beta Y_{t-1} + \mu_1 \Delta Y_{t-1} + \mu_2 \Delta Y_{t-2} + \ldots + \mu_p \Delta Y_{t-p} + \epsilon_t \]  

(1)

Where \( Y_t \) represents time series to be tested, \( b_0 \) is the intercept term, \( \beta \) is the coefficient of interest in the unit root test, \( \mu \) is the parameter of the augmented lagged first difference of \( Y_t \) to represent the \( p \) th order autoregressive process, and \( \epsilon_t \) is the white noise error term. If the variables are integrated of order one \( I(1) \), we test for the possibility of a co-integrating relationship using Engle and Granger (1987) two stage error correction modelling technique. The study employs the error correction model (ECM) because it is an appropriate estimation technique that captures the short and long-run effect of the differentiated variables.
The long-run equation in this study is specified as follow:

\[ GDP_t = \alpha_0 + \alpha_1 EDSEV_t + \alpha_2 EXDEBT_t + \alpha_3 INVT_t + \varepsilon_t \]  \hspace{1cm} (2)

Hence the error correction model used in this study is specified as:

\[ \Delta GDP_t = \beta_1 + \beta_2 \sum_{i=1}^{n} \Delta GDP_{t-i} + \beta_3 \sum_{i=1}^{n} \Delta EDSEV_{t-i} + \beta_4 \sum_{i=1}^{n} \Delta EXDEBT_{t-i} + \beta_5 \sum_{i=1}^{n} \Delta INVT_{t-i} + \delta_t Ecm(1) + \varepsilon_t \]  \hspace{1cm} (3)

Where GDP= Gross domestic product, EDSEV = External debt services, EXDEBT = External debt stock, INVT = Aggreate investment, \( \varepsilon_t \) = Error term and Ecm(-1) = error correction term.

The short run effects are captured through the individual coefficients of the differenced terms. That is \( \beta_i \) captures the short run impact while the coefficient of the ECM variable contains information about whether the past values of variables affect the current values of the variables under study. The size and statistical significance of the coefficient of the error correction term measures the tendency of each variable to return to the equilibrium. A significant coefficient implies that past equilibrium errors play a role in determining the current outcomes. \( \delta_t \) captures the long-run impact.

In order to determine whether changes in one variable are a cause of changes in another, we employed the Granger (1969) causality test which is a method of investigating whether A causes B. B is said to be Granger-caused by variable A, if A helps in the prediction of B or if the coefficients of the lagged A’s are statistically significant. The main idea of causality is quite simple, if A causes B, then changes in A should precede changes in B (Pindyck and Rubinfeld, 1998). This characteristic makes causality test an important one in the test of endogeneity. Since the time series variables are stationary from the ADF and PP test, the Granger causality test is performed as follows:

\[ \Delta Y_t = \alpha_1 + \beta_1 \Delta Y_{t-1} + \beta_2 \Delta Y_{t-2} + \ldots + \beta_n \Delta Y_{t-n} + \gamma_1 F_{t-1} + \gamma_2 F_{t-2} + \ldots + \gamma_n F_{t-n} + \varepsilon_{t} \]

\[ F_t = \alpha_2 + \beta_1 F_{t-1} + \beta_2 F_{t-2} + \ldots + \beta_n F_{t-n} + \gamma_1 \Delta Y_{t-1} + \gamma_2 \Delta Y_{t-2} + \ldots + \gamma_n \Delta Y_{t-n} + \varepsilon_{t} \]  \hspace{1cm} (4)

Where \( \Delta Y_t \) is the first difference of time series variables \( Y \) at time \( t \); \( n \) is a suitably chosen positive integer; \( \beta_i \) and \( \gamma_j \) (i, j=1,2,\ldots,n) are parameters and \( \alpha_i \)’s are constants, while \( \varepsilon_i \) ’s are disturbance terms with zero means and finite variances.

4. Data Analysis and Results

4.1 Correlation Matrix

The result of the correlation analysis between external debt stock and investment is presented in Table 1. Result shows that the correlation coefficient is positive and strong (0.519) to be precise. This implies that external debt stock increases as INVT increases.

Specifically, external debt stock increases by 51.9 percent with 1 unit increase in INVT. This relationship is significant at 0.05 level of probability.

<table>
<thead>
<tr>
<th></th>
<th>EDSEV</th>
<th>EXDEBT</th>
<th>GDP</th>
<th>INVT</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDSEV</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXDEBT</td>
<td>0.027752</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP</td>
<td>0.09061</td>
<td>0.261899</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>INVT</td>
<td>-0.145655</td>
<td>0.519155</td>
<td>-0.571553</td>
<td>1</td>
</tr>
</tbody>
</table>

Data Source: Authors’ computation.
4.2 Unit Root Test

For the stationarity of the time series data, the ADF and PP unit root tests are applied. Test results are shown in Table 2. Under the ADF test, EDSEV and INVT were found to be stationary at level, while only INVT was stationary at level under the PP test. As a result of this, all the variables were differenced once, and all the variables were found to be stationary at first difference under the ADF and PP test and were all significant at 1% significant level except EXDEBT that was significant at 5% level under the PP test.

Table 2 Stationarity test of the variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Series</th>
<th>ADF</th>
<th>PP</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDSEV</td>
<td>Level</td>
<td>-4.384907***</td>
<td>-3.879297***</td>
<td>I(1)</td>
</tr>
<tr>
<td></td>
<td>1st Diff</td>
<td>-5.277422***</td>
<td>-8.40083***</td>
<td></td>
</tr>
<tr>
<td>EXDEBT</td>
<td>Level</td>
<td>1.364921</td>
<td>-1.420009</td>
<td>I(1)</td>
</tr>
<tr>
<td></td>
<td>1st Diff</td>
<td>-4.740734***</td>
<td>-2.967767**</td>
<td></td>
</tr>
<tr>
<td>GDP</td>
<td>Level</td>
<td>-1.738187</td>
<td>4.158433***</td>
<td>I(1)</td>
</tr>
<tr>
<td></td>
<td>1st Diff</td>
<td>-9.886599***</td>
<td>-9.514714***</td>
<td></td>
</tr>
<tr>
<td>INVT</td>
<td>Level</td>
<td>-5.525605***</td>
<td>-2.316244</td>
<td>I(1)</td>
</tr>
<tr>
<td></td>
<td>1st Diff</td>
<td>-3.755994***</td>
<td>-5.471722***</td>
<td></td>
</tr>
</tbody>
</table>

Notes: (1) ** & *** indicate significant level at 5% and 1%, respectively; (2) Data source: Authors’ computation.

4.3 Co-Integration Test

Using the Engel and Granger (1987) two stage techniques, the co-integration test result reveals that the residuals from the regression result are stationary at 1% level of significance. This means that external debt stock (EXDEBT), External debt servicing (EDSEV) and Aggregate investment (INVT) are co-integrated with gross domestic products (GDP) in Nigeria over 1979 to 2009 periods. In other words, there exists a long run stable relationship between the dependent and independent variables. This finding also reveals that any short run deviation in their relationships would return to equilibrium in the long run.

4.4 Error Correction Model Regression Result

Table 3 reports the error correction model (ECM) results. The results clearly shows a well defined error correction term [Ecm(-1)] with an expected negative coefficient. The coefficient measures the speed at which GDP disequilibrium adjusts to equilibrium. The ECM coefficient of -0.28 indicates that about 28% of the previous years disequilibrium in the economy (GDP) is corrected in the long run. The statistical significance of the error correction coefficient at 5% level supports our earlier assertion that GDP is indeed co-integrated with the explanatory variables. Furthermore the adjusted coefficient of determination (R-squared=0.84) reveals that about 84% of the systematic variations in Nigeria Economy’s GDP is jointly explained by external debt stock, debt servicing and domestic investment using the ECM model implying that the model has a goodness of fit that is above average. The F-test which is used to determine the overall significance of regression model, reveals that there exist statistically significant linear relationships between the dependent and explanatory variables at 5% levels (F-value of 12.64) in the error correction model. This therefore means that the overall model (i.e. the coefficients of the entire explanatory variables as they relate to the dependent variable) is statistically different from zero.
Table 3 Short-run and long-run regression

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-316462.8</td>
<td>183261.8</td>
<td>-1.726834</td>
<td>0.1047</td>
</tr>
<tr>
<td>DGDP(-1)</td>
<td>0.628697</td>
<td>0.226537</td>
<td>2.775249</td>
<td>0.0141</td>
</tr>
<tr>
<td>DGDP(-2)</td>
<td>0.857406</td>
<td>0.225525</td>
<td>3.801821</td>
<td>0.0017</td>
</tr>
<tr>
<td>DEDSEV</td>
<td>-0.002725</td>
<td>0.099155</td>
<td>-0.027486</td>
<td>0.9784</td>
</tr>
<tr>
<td>DEDSEV(-1)</td>
<td>0.244731</td>
<td>0.09505</td>
<td>2.574756</td>
<td>0.0211</td>
</tr>
<tr>
<td>DEDSEV(-2)</td>
<td>0.113353</td>
<td>0.09329</td>
<td>1.215068</td>
<td>0.2431</td>
</tr>
<tr>
<td>DEXDEBT</td>
<td>0.786976</td>
<td>0.292751</td>
<td>2.688211</td>
<td>0.0169</td>
</tr>
<tr>
<td>DEXDEBT(-1)</td>
<td>-0.034142</td>
<td>0.373276</td>
<td>-0.091466</td>
<td>0.9283</td>
</tr>
<tr>
<td>DEXDEBT(-2)</td>
<td>-0.452619</td>
<td>0.338398</td>
<td>-1.337536</td>
<td>0.201</td>
</tr>
<tr>
<td>DINVT</td>
<td>-5.778102</td>
<td>1.704215</td>
<td>-3.390477</td>
<td>0.004</td>
</tr>
<tr>
<td>DINVT(-1)</td>
<td>3.002968</td>
<td>3.195237</td>
<td>0.939827</td>
<td>0.3622</td>
</tr>
<tr>
<td>DINVT(-2)</td>
<td>5.371221</td>
<td>2.712743</td>
<td>1.979996</td>
<td>0.0664</td>
</tr>
<tr>
<td>ECM(-1)</td>
<td>-0.283524</td>
<td>0.10524</td>
<td>-2.694078</td>
<td>0.0167</td>
</tr>
</tbody>
</table>

R-squared        | 0.910033    | Mean dependent var | 880894.6 |
Adjusted R-squared| 0.838059    | S.D. dependent var  | 1244344 |
S.E. of regression| 500746.7    | Akaike info criterion | 29.39001 |
Sum squared resid | 3.76E+12    | Schwarz criterion   | 30.00853 |
Log likelihood   | -398.4601   | Hannan-Quinn criter. | 29.57909 |
F-statistic      | 12.64399    | Durbin-Watson stat  | 1.729466 |
Prob(F-statistic)| 0.00001     |                    |        |

**Data Source:** Authors’ computation.

Specifically, one and two period lag of external debt stock had negative impact on Nigeria economy GDP. The two period lag external debt stock variables had negative and insignificant relationship with Nigerian GDP, this means that external debt stock impact on Nigerian economy has both immediate and time lag impact. This result is partly consistent with Ali and Mshelia (2007) which used Nigerian debt data and found among others; positive and negative relations with GDP, and agree with Iyoha (1999) who asserts that external debt has a negative impact on economic growth, thereby concluding that external debt depresses investment through both a “disincentive” effect and a “crowding out” effect, thus affecting economic growth. The results also revealed that increase in past three years GDP increases current GDP except for year three GDP which had a negative relationship with current GDP. This means that current economic performance has long memory of distant past economic activities. Unlike the ECM short run results which had mixed short run relationship, the long run regression results revealed that external debt stock had positive and significant relationship with GDP in Nigeria. This result is in conformity with Cohen (1995) who used a larger data set of 81 developing countries over a period of 1965–1987 and did not find any evidence in favour of a negative relationship between external debt and economic growth. The results shows that one, two and three years past debt servicing had insignificant negative relationship with GDP in Nigeria while three years debt service paid had a positive insignificant relationship with GDP in Nigeria. In the long run regression results, external debt servicing had a negative but insignificant relationship with GDP in Nigeria. This result corroborated the findings of Hameed et al., (2008) who explored the dynamic effect of external debt servicing, capital stock and labor force on the economic growth of Pakistan for a period of 1970–2003. They found an adverse
effect of external debt servicing on labor and capital productivity which ultimately hampers economic growth.

The results in general revealed that the GDP growth experienced in Nigeria was greatly determined by external debt stock but insignificantly related to debt servicing in the long run. The results in the short run show that external debt stock and debt servicing variable lags had mixed relationship with GDP in the short run. This is in conformity with the findings of Ali and Mshelia (2007). But was in contrast with Were (2001) who analyzed the debt overhang problem in Kenya and tried to find evidence for its impact on economic growth. Using time series data from 1970–1995, this study did not find any adverse impact of debt servicing on economic growth. The ECM and OLS long run regression with Durbin Watson-statistic value of 1.73 shows that there is no evidence to accept the presence of serial correlation in the model. This means that the model is valid and can be used for policy recommendation without re-specification. The empirical results from this study reveal that external debt stock contributed significant to Nigeria GDP while debt servicing had a negative but insignificant impact on Nigeria GDP.

To capture the degree and direction of correlation between GDP and other explanatory variables (EDSEV, EXDEBT and INVT), Granger causality test was conducted. However, since the unit root test indicates stationarity of the variables at first difference, this causality test cannot show the long term but the short term relation. From the result presented in Table 4 we can deduce that the null hypothesis “EDSEV does not Granger cause GDP” cannot be rejected as the obtained F-statistic of 0.705 fails to fall behind the critical value. However, we can certainly reject the null hypotheses that “INVT does not Granger cause GDP” and “EXDEBT does not Granger cause GDP” since their respective F-statistic of 15.98 and 17.43 fall behind the critical value and are significant at 1% level. This result clearly shows that aggregate investment (INVT) and external debt stock (EXDEBT) Granger cause and predict GDP while external debt service (EDSEV) does not.

Table 4 Granger Causality test

<table>
<thead>
<tr>
<th>Null Hypothesis</th>
<th>Obs</th>
<th>F-Statistic</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXDEBT does not Granger Cause EDSEV</td>
<td>29</td>
<td>1.60732</td>
<td>0.22126</td>
</tr>
<tr>
<td>EDSEV does not Granger Cause EXDEBT</td>
<td></td>
<td>0.93474</td>
<td>0.40652</td>
</tr>
<tr>
<td>GDP does not Granger Cause EDSEV</td>
<td>29</td>
<td>1.80069</td>
<td>0.1868</td>
</tr>
<tr>
<td>EDSEV does not Granger Cause GDP</td>
<td></td>
<td>0.70456</td>
<td>0.50426</td>
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<tr>
<td>INVT does not Granger Cause EDSEV</td>
<td>29</td>
<td>2.35799</td>
<td>0.11616</td>
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<td>EDSEV does not Granger Cause INVT</td>
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<td>6.50868</td>
<td>0.00552</td>
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<tr>
<td>GDP does not Granger Cause EXDEBT</td>
<td>29</td>
<td>1.56972</td>
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<td>17.425</td>
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<td>INVT does not Granger Cause GDP</td>
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<td>0.000039</td>
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<tr>
<td>GDP does not Granger Cause INVT</td>
<td></td>
<td>1.69612</td>
<td>0.20465</td>
</tr>
</tbody>
</table>

Data Source: Authors’ computation.
5. Concluding Remarks

5.1 Summary of Findings

Specifically, this study examined foreign debt management and the development of Nigeria economy. From the previous arguments in this study and from the empirical results, it is obvious that the GDP growth experienced in Nigeria was greatly determined by external debt stock but insignificantly related to debt servicing in the long run. This means that external debt stock has a significant positive impact on economic development in Nigeria. In the long run regression results, external debt servicing had a negative but insignificant relationship with GDP in Nigeria. This implies that external debt servicing payment did not impact on the economic development of Nigeria. The results also revealed that external debt stock and debt servicing payment had a mixed delay effect on the Nigeria economy during the period under consideration (1979–2009). With eighty-four percent of the changes in economic development being explained by the model, it is only logical to summarize that other factors, for which a major share are qualitative factors, explain the minor sixteen percent of the variability in economic development in Nigeria. These findings shows that increase in external borrowing if properly managed will contribute significantly to Nigeria economic development.

5.2 Conclusion and Recommendations

Many countries opt for external financing as a means of ensuring sustained development and against domestic borrowing. The ‘dual gap’ theory postulates that investment is a function of savings and that investment that requires domestic savings is not sufficient to ensure economic development, thereby necessitating complementary external goods and services. The thesis of this study applied some econometric approaches to investigate the presence of long and short term linear or non-linear effect of foreign debt on economic growth and development in Nigeria. The significant finding of this study is that external debt stock has a significant positive impact on economic development in Nigeria while external debt servicing payment did not impact on the economic development of Nigeria. Foreign debt stock and external debt servicing however had mixed delay effect on the economy of Nigeria from 1979 to 2009. Finally, Nigeria, and all indebted countries of the world should seek external loans only for very high priority, well-appraised, and self-liquidating project that have direct impact on economic development. An economic culture of transparency, in the issue of debt management, should be cultivated. A sound macroeconomic environment is an important ingredient of growth and development because it is a logical prerequisite for proper utilization of external funds. The conclusion however, is that foreign debt if efficiently managed will promote economic development in Nigeria and other developing nations of the world.

It is recommended that policy makers in Nigeria and foreign interests (especially the creditors to the developing economies) should be more conscious and concerned about the importance of effective foreign debt management to economic development processes. Towards achieving this goal, the relevant authorities should employ a better technique to effect external debt management in terms of acquisition and optimal deployment of such debt. Although Nigeria adopted several strategies such as placing embargoes on new loans; debt restructuring through refinancing, rescheduling, buyback, and issuance of collateral bonds to ameliorate external debt. But despite these strategies, other approaches (such as the use of more superior method to negotiate for fixed interest payment and varying amortization schemes; spending of external debt on productive self-liquidating investment must be strictly adhered to, while projects to be financed with external loan must be properly appraised and government should lay down well considered guideline for external loans acquisition and the conditions under which the government can approve and guarantee
external loans) can help debt payment to be sustainable in Nigeria as well enhance economic development. Most importantly, stakeholders’ interests should be directed at stimulating domestic savings and capital formation locally geared toward economic growth as this will stimulate self confidence in the economy at the expense of overdependence on foreign debt. However if foreign debt must be acquired, the purpose must be clearly defined (high priority projects) and the debt effectively managed to accelerate economic development.

References


