DISTORTIONS IN THE REAL ECONOMY: IMPLICATIONS FOR SUSTAINABLE NATIONAL DEVELOPMENT

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ABSTRACT

It is a known fact that Nigerian is endowed with natural and human resources to build a sustainable economic growth and development. More so, despite Nigeria’s involvement in various bilateral, multi-lateral and economic integration with the rest of the world, the task of sustainability in economic development is still a mirage. It is pertinent to say therefore that this might not be unconnected to the various ‘distortions’ (the bending, twisting, or forcing of macro-economic variables out of its usual way) in the polity which has hitherto exerts a negative influence on the real sector of the economy. This study adopts a time series data on a number of macro-economic variables to examine the distortions in the real sector of the economy between 1973 and 2008 and the implications for sustainable developments. Though, the results show an increase in the trend of the selected macro-economic variables except inflation rate which fluctuates. Similarly, the results of the Ordinary Least Square (OLS) revealed that exchange rate and interest rate are the significant policy variables that contributed to economic growth. However, on the contrary, the economy has not changed structurally to juxtapose the increase in the macro-economic variables considered in the study. The study opined that, lack of policy implementation by successive governments might have been responsible for the problem of attaining sustainable economic growth with attendant implication for sustainable economic development. The study therefore recommended that government should ensure proper implementation of policies and programmes as well as enhancing foreign direct investment through moderate exchange and interest rates coupled with development of infrastructural facilities in the country (electricity, roads, water etc). These among others are ‘sine-qua non’ in achieving sustainable economic growth with attendant effect on economic development as a veritable key to Nigeria becoming one of the top 20 economies of the world by the year 2020.

Keywords: Distortions, Real economy, Macroeconomic variables, Sustainable development.

INTRODUCTION

The concept of distortions in the economy is regarded as the bending, twisting, or forcing of economy out of its usual position. Development is the process whereby the real per capita income increases over time through changes in the quality of productive factors and the institutionalization of the growth process. In particular, development implies not merely the growth of per capita real income, but also its distribution, the sources of growth, the development of infrastructure and administrative framework essential to sustain a cumulative growth. Thus, it is much broader concept than economic growth.

According to Olaloku et al.,(1975), development implies the complete modernization of a society. It entails the conversion of a peasant society into an industrial one, and it means a change in the whole way of life, in expectation and motivations, and even the physical environment of daily life itself. It is perhaps for this reason that there is no unanimity as to the criteria for measuring development. Nevertheless, it is generally agreed that development is multi-dimensional in nature, having political, social and economic implications.
In the past economic development was considered to be synonymous with economic growth. The latter can be conceptualized as a sustained increase in real income/output or more appropriately real income per capita over time. Aggregate measures often used to capture economic growth include gross domestic product (GDP), gross national product (GNP) and net national product (NNP) at constant prices. However, the notion that economic development is synonymous with economic growth is predicted on the implicit belief that the latter would translate into higher quality of life for all and sundry in the society. This is often referred to as “trickle-down effect” of economic growth. The experience has however shown that economic growth is necessary but not sufficient for economic development to occur.

What constitute economic development seems to be an issue of heated debate among development economist and policy makers. But, the agreement is based on the fact that the core elements of economic development are the continuous promotion of the welfare and standard of living of the people. Similarly, it connotes structural transformation, advancement in technology, sustainability and equity. Poverty, in all its ramifications and manifestation is antithetical to economic development. (Fajingbesi and Uga, 2003).

Sustainable development has been defined in many ways, but the most frequently quoted definition is from Our Common Future, also known as the Brundtland Report [1987]. "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. However, Nigeria has continually put much effort at increasing the pace of development and changing the structure of the economy since independence. Unfortunately, the efforts have not been matched by the outcomes, which have remained largely unimpressive. A quick appraisal of the economy shows that the basic features of the economy have not changed much from the situation of the 1960s except that, oil has taken over agriculture as the mainstay of the economy. Given the way that the oil sector has been managed, the result has been more distortions in the economy and a retardation of the pace of development. Hence, it certainly appears to have been more of high figures than of structural change in the economy. It is disheartening to note that despite abundant available natural and human resources of Nigeria, the expected performance in different sectors of the economy is yet to be materialized.

The task of achieving economic recovery and sustained qualitative growth is rather daunting, as Nigeria appears to be sucked into the vortex of interlocking vicious circles, which have interacted to keep it in a low growth equilibrium trap. It is a known fact that Nigerian is endowed with natural and human resources to build a sustainable economic growth and development. Similarly, despite Nigeria’s involvement in various bilateral, multi-lateral and economic integration with the rest of the world, the task of sustainability in economic development is still a mirage. It is pertinent to say therefore that this might not be unconnected to the various ‘distortions’ (the bending, twisting, or forcing of macro-economic variables out of its usual way) in the polity which has hitherto exerted a negative influence on the real sectors of the economy.

Recently, Nigeria celebrated her 50th Independence anniversary. There are those who believe in some quarters that looking at Nigeria today, there is no cause for celebrating at all, while others argued that nothing to show for it. Basically, reviewing the various economic policy of government in the past years, one would observe the size of response in each sector indicates a strong link with economic growth with its attendant’s consequence on the sustainable economic development.

The way a country can achieve economic growth is a function of several factors which provides a systematic linkage for a meaningful
sustainable economic development. These include export, import, exchange rate, interest rate, inflation rate, among others. This study adopts a time series data on a number of macro-economic variables to examine the distortions in the economy between 1973-2008 and the implications for sustainable economic development.

REVIEW OF LITERATURES

It is pertinent to equally stress that some obvious economic distortions which past literatures have construed to having impact on economic growth include high interest rate, inflation, exchange rate among others. But despite the plethora of theoretical and empirical works, a general consensus on the “right” policy framework is yet to emerge.

A major consideration in choosing macro-economic variables should be its effects on various random shocks on the domestic economy. Gyimah-Remfong, and Anthony (1993) investigated the effects of exchange rate distortion on economic growth in a Less Developed Country (LDC) Ghana. Using time series data from Ghana and a five equation simultaneous model, they found out that exchange rate distortion, as measured by the black market premium, has a deleterious effect on economic growth rate. Oyejide (2002) opined that appropriate fiscal and monetary policies tend to control inflation as exchange rate depreciation and stability increase the profitability of exports. He further stressed that the exceptional export growth performance of East Asian countries and Chile is closely related to the ability of these countries to avoid real exchange rate over valuation while minimizing exchange rate volatility.

It has been noted also that, there is a link between trade and growth as examined in a neoclassical model of an open economy in which domestic production requires both domestic and imported inputs. The model shows that trade distortions induced by policies such as tariffs and exchange controls generate cross-country divergences in growth rates and in per capita income over a long period. The empirical results confirmed that tariff rates and black market premia, interacting with the estimated share of free trade imports, have significant negative effects on the growth rate of per capita income across countries (IMF 1993).

Williams (1989) examined the structural relationship between policies that distort resource allocation and long term growth. The study found out that the relationship between distortion and steady growth is negative but highly nonlinear. The study suggests that simple linear relationships between distortions and growth or between size of government and growth are untenable. The dialogue between advocates of liberalization and policy makers could be enriched by recognition of the structural factors that influence the effect of lowering distortions on growth.

To sum up, the empirical literature reveals mixed conclusions on the link between gross domestic product as a proxy for economic growth with implication for a sustainable development and other macroeconomic variables as earlier enumerated above. Despite this, an in-depth study is necessary before any decision on the choice of policy mix to be undertaken in Nigeria for a more sustainable economic development.

METHODOLOGY

In estimating our model, data covering 1973-2008 were obtained from the Central Bank of Nigeria Annual Report and Statement of Accounts (various issues) and Statistical Bulletin (various issues). The real output of interest (GDP) which are usually aggregate output of industries, manufacturing sector, service sector and agricultural output while other explanatory variables include import, export, exchange rate, interest rate and inflation rates. The Ordinary Least Square (OLS) technique was employed in obtaining the numerical estimates of the coefficients in different equations, that is, linear equation,
semi-log equation, double log equation and exponential equations using E-View version 5 Software.

Descriptive statistics like charts were used to elucidate the trend of all the macro-economic variables (Gross Domestic Product, export, import, exchange rate, interest rate and inflation between 1973 and 2008 and regression analysis was used to show the relationship between the dependent variable (GDP as a proxy for economic growth) and other explanatory variables (import, export, inflation, exchange rate and interest rate). The software used for this analysis was E-View 5.1 version and Microsoft Excel version 2007.

MODEL SPECIFICATION
The model specify for this study is as stated below:

Implicit function – \( RGDP = f \left( EXPT, IMP, EXR, INTR, INFL \right) \)

Explicit functions based on different functional forms are as indicated below:

Linear functions – \( RGDP = \omega_0 + \omega_1 \times EXPT + \omega_2 \times IMP + \omega_3 \times EXR + \omega_4 \times INTR + \omega_5 \times INFL + u \)

Semi-log function – \( RGDP = \phi_0 + \phi_1 \times LNEXPT + \phi_2 \times LNIMP + \phi_3 \times LNEXR + \phi_4 \times LNINTR + \phi_5 \times LNINFL + u \)

Double log function – \( LNGDP = RGDP = \gamma_0 + \gamma_1 \times LNEXPT + \gamma_2 \times LNIMP + \gamma_3 \times LNEXR + \gamma_4 \times LNINTR + \gamma_5 \times LNINFL + u \)

Exponential function – \( LNGDP = \beta_0 + \beta_1 \times EXPT + \beta_2 \times IMP + \beta_3 \times EXR + \beta_4 \times INTR + \beta_5 \times INFL + u \)

Where:

\( RGDP = \) Real Gross Domestic Product (N’ millions)
\( EXPT = \) Export value (N’ millions)
\( IMP = \) Import value (N’ millions)
\( EXR = \) Exchange rate (N/USD)
\( INTR = \) Interest rate (%)
\( INF = \) Inflation rate (%)
\( U = \) Random error
\( \omega, \phi, \gamma, \beta = \) Parameter estimates
\( \ln = \) Natural logarithm

A Priori expectation
\( \omega_0 > 0, \omega_1 > 0, \omega_2 < 0, \omega_3 > 0, \omega_4 > 0 \) or \( \omega_5 < 0 \) or \( \geq 0 \). All the variables considered are expected to be positive except the exchange rate and inflation rates depending on the rates within the period under review. Though, the effect of inflation is likely to be negative because the higher the inflation the higher the price level, hence, may have effect on the productive capacity or the economy as a whole.

RESULTS
Descriptive statistics: This was used to achieve the objectives of showing the trend of macroeconomics variables considered in the study with particular reference to the period under review (1973-2008). Figure 1 shows the trend of the real GDP between 1973 and 2008. It shows that the value of output proxy by Real GDP was very low around 1980 and later rose up but dropped around 1981 with sharp increase in 1994 and continue to maintain significant improvement up till 2008. This might be due to the rise in oil export in the economy and some sustained economic reforms of the government, International Monetary Fund (IMF) monitored policy support and support instrument(PSI).
Figure 1: The trend of Real Gross Domestic Product between 1973-2008
Source: Data analysis, 2010.

Figure 2 shows the trend of import values over the period under review. It depicts that between 1973 and 1990, the rate of importation was very minimal but again rose between 1994 and 2008. This clearly shows the country as an import dependent economy which largely due to importation of technology and equipment for our local industry.

Figure 2: The trend of Import between 1973 and 2008
Source: Data analysis, 2010.

Figure 3 shows that export values was initially at a low ebb but later continue to rise up till 2008. This is to a large extent a function of the oil output and some non-oil products to the rest of the world.

Figure 3: The trend of Export between 1973 and 2008
Source: Data analysis, 2010.
Figure 3: The trend of export performance between 1973 and 2008

Figure 4 also depicts that inflationary trend fluctuates over the years. But around 1998 it dropped but increased slightly between 2000 and 2008 when a single digit target rate was sustained due to the Central Bank of Nigeria (CBN) sound monetary as well as sustained price stability policy.

Figure 4: The trend of Inflation between 1973 and 2008
Source: Data analysis, 2010.

Figure 5 shows the exchange rate policy has not been stable since Nigeria always record higher outflow of foreign exchange which later led to introduction of Wholesale Dutch Auction System (WDAS) and bureau de-change (BDC) segments of the foreign exchange market.
Figure 5: The trend of Exchange rate between 1973 and 2008
Source: Data analysis, 2010.

Figure 6 depicts upward slope up to 1989 but dropped in around 1990 and later rose around 1993. Generally, the rates had been fluctuating over the years. However, CBN policy of a market based interest rate regime ‘monetary policy rate (MRR) which later replaced with Minimum Rediscount Rate (MRR) under the new monetary policy implementation framework has resulted in the entire liquidity surge and the effects on the capital inflows into the economy. However, the downward movement might also be traceable to the increased competition in the credit market.

Figure 6: The trend of interest rate between 1973 and 2008
Source: Data analysis, 2010.

Results of exponential equation - The results of table 1 show $R^2$ of 0.91. This implies that about 91 percent of the total variation in dependent variable (GDP, been used as a proxy for economic growth) is being explained by the independent or explanatory variables. However, different functional forms were tested and the Linear equation had the lead equation based on the econometric criteria. The sign of the coefficient if positive, shows that a unit increase in the explanatory variables (i.e. EXPT, IMP, EXR, INTR, AND INFL) will lead to unit increase in economic growth. Thus, all the variables have positive
relationship with the economic growth. However, Exchange rate and interest rates are significant at 1 percent level of probability (i.e. P<0.01). This therefore indicates the relative importance of exchange and interest rates in the determination of economic growth having attendant effect on the sustainable development. Also, F-statistics is also significant at 1% probability level, which shows the fitness of the model used. Durbin Watson Statistics value is 0.97. This shows no positive autocorrelation in the time series data used.

Table 1: Results of Regression Analysis of the Macroeconomic variables  (Dependent Variable: GDP)

<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>45125.44</td>
<td>22562.18</td>
<td>2.000048</td>
<td>0.0546</td>
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<tr>
<td>EXPT</td>
<td>0.030317</td>
<td>0.019032</td>
<td>1.592917</td>
<td>0.1217</td>
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<tr>
<td>IMP</td>
<td>0.019109</td>
<td>0.034771</td>
<td>0.549552</td>
<td>0.5867</td>
</tr>
<tr>
<td>EXR</td>
<td>1239.885</td>
<td>346.1144</td>
<td>3.582299</td>
<td>0.0012</td>
</tr>
<tr>
<td>INTR</td>
<td>10059.07</td>
<td>1896.157</td>
<td>5.304978</td>
<td>0.0000</td>
</tr>
<tr>
<td>INFL</td>
<td>-56.56144</td>
<td>628.9505</td>
<td>-0.089930</td>
<td>0.9289</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.912983</td>
<td>Mean dependent var</td>
<td>263568.6</td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.898480</td>
<td>S.D. dependent var</td>
<td>182073.2</td>
<td></td>
</tr>
<tr>
<td>S.E. of regression</td>
<td>58012.60</td>
<td>Akaike info criterion</td>
<td>24.92572</td>
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<tr>
<td>Sum squared resid</td>
<td>1.01E+11</td>
<td>Schwarz criterion</td>
<td>25.18964</td>
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<tr>
<td>Log likelihood</td>
<td>-442.6630</td>
<td>F-statistic</td>
<td>62.95177</td>
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<tr>
<td>Durbin-Watson stat</td>
<td>0.974602</td>
<td>Prob(F-statistic)</td>
<td>0.000000</td>
<td></td>
</tr>
</tbody>
</table>

CONCLUSION

This study focuses on the distortions in the real economy and the implication for sustainable development. The research revealed that there has been fluctuating trend in the macro-economic variables considered in this study. Similarly, the results of the Ordinary Least Square (OLS) revealed that exchange rate and interest rate are the significant policy variables that contributed to economic growth. However, on the contrary, the economy has not changed structurally to juxtapose the increase in the increases in the trend of macro-economic variables considered. The study opined that, lack of policy implementation by successive governments might have been responsible for the problem of attaining sustainable economic growth with attendant implication for sustainable economic development. The study therefore recommended that government should ensure proper implementation of policies and programmes and government should also enhance foreign direct investment through moderate exchange and interest rates coupled with development of infrastructural facilities in the country (electricity, roads, water etc.). These among others are' sine-qua none' in achieving sustainable economic growth with attendant effect on economic development as a veritable key to Nigeria becoming one of the top 20 economies of the world by the year 2020.

REFERENCES