CAPITAL FLIGHT AND ECONOMIC GROWTH IN NIGERIA: AN EMPIRICAL ANALYSIS

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ABSTRACT

In this study we examined with the use of Unit Root, Co-integration and Ordinary Least Square (OLS) method, the impact of Capital Flight on economic growth in Nigeria between 1981 and 2016. Asides capital flight (CAF), Gross Fixed Capital Formation (GFCF), Exchange Rate (EXR), Inflation (INF) and Terms of Trade (TOT) are the other independent variables used. The finding is that apart from the GFCF, the rest of the variables had negative impact on the country’s GDP growth during the period under consideration. It is the opinion of the paper therefore, that the government should put in place appropriate policy framework and its implementation to ensure high productivity in the economy. This will not only guarantee availability of enough goods for foreign exchange earnings when exported, reduce inflation in the economy, encourage exports of excess produced goods rather than importing to complement inadequate produced goods. With this, the economy rather than fostering capital flight that leads to low GDP growth will do otherwise.

1. INTRODUCTION

Capital flight is an unapproved transfer of funds from one’s own country to another country, mainly from developing to developed countries. It is the flow of financial assets resulting from the holder’s opinion that capital is subjected to inordinate level of risk as a result of either devaluation or hyperinflation or political turmoil and or both expropriation of retained earnings at home in domestic currencies (Cooper and Hardt, 2000). According to Ndikumana and Boyce (2002), Capital flight is a resident’s Capital transfer, excluding recorded investment abroad. Capital flight takes place as the owner of fund at home seeks for a better place for his fund in a foreign country due to an un-conducive economic and political environment in his country. It can thus be said that Capital flight is caused by both economic (financial constraints, fiscal deficit, tax and trade policies, exchange rate misalignment and poor investment environment) and political (corruption, political instability and other social upheavals) reasons Ajayi (1992). In whichever way and for whatever reason(s) it happens, it is taking away a part of domestic private savings abroad, the persistence of which can lead to a serious deduction of savings in the domestic economy. When this occurs, banks domestic resources in form of that savings fall, thereby curtailing the bank’s ability to provide credit for investment, industrialization, economic growth and development (Saheed et al, 2012).

The matter of Capital flight from Nigeria to other countries mostly the developed countries, has received appreciable attention from researchers and policy makers. Particularly, concerns have been expressed about the causes and consequences of capital flights from the country due to inadequate financial resources for deserved economic growth and development occasioned by these flights. From the 1980s, the country has experienced increased capital flight by politicians and other private investors.
Flights of capital from capital scarce nation purpose a problem in achieving its economic growth and development objectives. Capital flights from a country aggravate the shortage of resources for development because it causes decline in growth of the gross domestic product (GDP). Without growth, there will be no development. Growth is reduced partly because investment has been diverted abroad and also because necessary imports are limited by the foreign exchange drain from both the flight itself and the fact that earnings on such assets are not brought back into the country. Consequently, capital flight has a negative influence on the GDP growth through reducing domestic investment. In turn, lower level of domestic investment reduces capital-labour ratio, which lessens labour producing capacity and consequently, the output produced. Capital flight also has an ability to induce negative feedback processes, especially during the periods of uncertainty, be it political or and any other disorder or crisis. The issue of capital flight with respect to Nigeria is of great importance nowadays. This is because, as resource constraints become binding, economic growth is further limited. Then more capital flight could occur. There is also the possibility of being cut off from external sources of funds. Hence, it becomes more difficult to implement economic policies, and improving the social conditions of people also becomes even more difficult. The purpose of this paper is therefore, to examine the impact of capital flight on economic growth in Nigeria from 1981 to 2016 (during this period both military and democratic leaders were said to put in place conditions that encouraged capital flight and even participated in the act. For instance, the notorious Abacha’s loot as well corruption accusations of flowing capital abroad by politicians against themselves mostly from 1999 to date). It will also postulate measures to curb capital flight; as well as ameliorate its effect in Nigeria.

2. Literature Review

In other to develop this paper so many other peoples’ works were reviewed. Lessard & Williamson (1987) categorize the studies of capital flight into two groups: investment-climate type studies and discriminatory-treatment type studies. Both types of studies, in essence, explain capital flight as a consequence of domestic macroeconomic mismanagement, for example, higher taxation, financial repression, exchange rate overvaluation, inflation, and fiscal deficits, which consequently affect growth of the GDP.

The investment-climate type studies explain capital flight with variations of a portfolio model, where a representative investor spreads his portfolio among various domestic and foreign assets based on their perceived returns and risks. Capital flight is caused, according to these studies, by an overall unfavourable business environment for investment, resulting from domestic macroeconomic mismanagement. This, in turn, causes fear among the capital owners of impending low economic growth, fiscal deficits, high inflation, and currency depreciation or outright devaluation.

The discriminatory-treatment type studies, in contrast, explain capital flight with factors that cause the expected asset returns to be in state of dichotomy between residents and non-residents. According to the protagonists of this, capital flight is caused by the “discriminatory” treatment faced by domestic capital in the form of higher taxes (both outright taxes and inflation taxes), financial repression reflected in interest rate ceilings and fixed exchange rates and, in the wake of a domestic financial crisis, the preference of domestic residents for foreign-currency denominated assets. Since the discriminatory-treatment protagonists believe that non-residents face risks and returns systematically different from those faced by residents, studies grounded on this hypothesis can also explain the simultaneous outflow of domestic capital and inflow of foreign capital.

GDP shows the economic performance or economic growth of a country. Higher growth rate shows the wealthier economy and lower or negative growth rate of GDP indicates the poor economic performance of the country under consideration. GDP therefore is an important
indicator to attract or divert investment from investors coming from one country to another according to whether it is positively or negatively growing. A nation’s GDP can be expressed as: 
\[ \text{GDP} = C + I + G + X - M \]
where GDP is Gross Domestic Product, C is private consumption expenditure, I stands for capital investment expenditure, G is government expenditure, X is export of goods and services, M is import of goods and services. X-M is the balance on current account (when including current income and transfers). According to Jevcak et al (2002) factors which can attract capital inflows into a country are national GDP growth rate, interest rate hence, capital flows and GDP of a country is highly correlated with the gross fixed capital formation (GFCF). It is an important factor contributing to higher growth rate of GDP. The increasing GFCF will increase the investment projects and resources, projects that involve new transfers of technology, and higher number creation of skill jobs. Therefore, determinants of GDP are growth of export, exchange rate, current account balance, capital inflows and public development expenditures. Thus, determinants of GDP are important factors determining capital flows. Capital inflow and capital outflow are related through current account balance to GDP. The implication of this is that any change in either GDP or capital outflows will tend to impact each other at the same time hence, higher capital outflows or flight will worsen GDP. This is so because capital flight occurs when foreign / domestic investors sell off their assets or particularly, domestic individuals like wealthy people, corrupt politicians illicitly transfer money from their home country to another as they no longer perceive it as safe investment place, due to low GDP growth rate inter-alia. Many researchers believe factors that determine capital flight affects GDP. Capital flight depends on the rate of return appeal of foreign as compared to domestic assets when adjusted for the exchange In addition, mismanagement by the government caused capital flight to take place instead of privilege to the foreign investors.

Puah et al (2008) analysed the impact of exchange rates towards trade balance for ASEAN-5 countries which are Indonesia, Malaysia, the Philippines, Singapore and Thailand. Using a sample period from 1970 to 2004, their finding is that exchange rates can influence trade balance in these countries in the short-run except for Indonesia. Hence, Puah et al (2008) stated that it is important for the government to embrace an appropriate exchange rate regime in order to boost the economy as well as improving the trade deficit for the countries. As a result, this eventually helped to attract investors to invest in the country leading to capital inflow instead of a situation of capital flight.

With ADF Unit root Test, Johnson and Jusehins Co-integration Test and Granger Causality Test based on Error Correction Model, Kueh et al (2014) investigated the link between direct investment abroad of Singapore and few determinants for the period of 1975 to 2007. The empirical results showed that exchange rate has a significant impact on the abroad investment of Singapore. This is due to the stability and flexibility of the economy towards economic turbulences that strengthened the currency of Singapore. This encouraged foreign investment by domestic firms in the long-run and consequently led to capital flight.

Kueh et al (2009) using ARDL bounds testing approach, examined the relationship between trade openness and government expenditure of ASEAN-4 countries. They applied a sample period of 1974 to 2006 in estimating the results and found that trade openness is positively related with government expenditure of all the ASEAN-4 countries in the long-run. Furthermore, they indicated that the government expenditure serve as an important source of risk reduction and as well shield the infant domestic industries as trade becomes more liberalized; and according to them, minimized the amount of capital flight from the countries. This is because the governments played the role of economic stabilizers. Ljungwall and Wang (2008), using quarterly balance of payment data over the years 1993:1 to 2003:4 studied the determinants of capital flight in China and came up with result that when external debt is measured as change in external debt divided by GDP in developing countries, an increase in external debt usually brings about inflationary...
financing. This is equivalent to imposing an inflation tax on domestic residents. This makes people invest abroad to avoid this situation hence, there is correlation between external debt and capital flight. Chumhanchinda and Sirodom (2007) inspected the capital flight from five Asian countries namely Thailand, the Philippines, Indonesia, Malaysia and South Korea from 1991 to 2000. The evidence of their finding is that capital flight is shunned if borrowed fund is efficiently used by allocating the money to suitable economic sectors to develop the economy but failure in paying back debt or when there is a high potential of default, results to capital flight from developing countries; especially, when the default compounds involved risks with external debts and debt accumulation (Reinhart and Rogoff, 2004).

This happens as the investors’ confidence level is severely affected and may prefer to transfer their capital abroad; hence, political risk has a positive and significant relationship with capital flight. Lan et al (2010) investigated on China using yearly data from 1992 to 2007. With ARDL bounds testing procedure, the result indicates that changes in the domestic economy and political environment stimulate capital flight. These include political instability such as social disorder and adjustment in economic policies. Therefore, it can be said that capital flight can occur due to distortions caused by political (or) and social disorder of any type, including even strikes or demonstrations. With respect to RGDP and capital flight, Capital flight affects economic growth. Hadjimichael (1994) defines the whole group of factors influencing economic growth as macroeconomic stability (inflation, fiscal and exchange rate policies) trade policy, structural policies, financial intermediation, external debt, terms of trade changes and foreign assistance. Ajayi (1997) has incorporated the model by Hadjimichael (1994) to estimate the effect of capital flight on the real growth of GDP for Kenya. Her specification included such variables as growth in domestic investment, inflation rate, percentage change in the real effective exchange rate, and percentage change in terms of trade, fiscal deficit as a percentage of GDP, capital flight, debt/export and debt service ratios. Beja (2007) used counterfactual calculations to find that capital flight reduced the economic growth of Philippines from 2.3 to 1 percent between 1970 and 1999. This did not invalidate the finding of Ajayi (1997) that there is negative causal relationship between GDP and capital flight in Kenya during the period under investigation.

Saheed and Ayodeji (2012) and Kolapo and Ojo (2013) examined the causal relationship between GDP and capital flight in Nigeria. Saheed and Ayodeji (2012) argued that capital flight has positive effect on economic growth in Nigeria while Kolapo and Ojo opined that inflation and exchange rate are major determinants of capital flight in the country, which also negatively affect the country’ economic growth and development. This paper unlike the works of Sahhed and Ayodeji (2012), and Kolapo and Ojo (2013), investigates the impact of Gross Capital formation, Terms of Trade, Exchange Rate and Rate of Inflation as well as capital flight to ascertain the impact of the latter on the country’s GDP between 1981 and 2016 as to authenticate or otherwise their respective claim that capital flight is positively or negatively related to GDP during the period under study.

3. METHODOLOGY

This paper is based on the standard theory of growth, which is significantly extended by empirical testing to explain the economic growth by the increasing number of factors. In order to investigate the effect of capital flight on the economic growth of Nigeria during the period under review, the paper followed the model of Hadjimicael (1994).
THE MODEL SPECIFICATION

The equation describing the Model is:

\[ Y_{it} = \alpha_0 + \beta X_{it} + \gamma CF_{it} + e_{it} \]  

Where

\( Y_{it} \) = the dependent variable that stands as the growth of the GDP,

\( X_{it} \) = represents the set of control variables and

\( \gamma CF_{it} \) = the proxy for Capital flight while

\( e_{it} \) = the error term.

The main hypothesis of the paper is to test whether the coefficient of capital flight (\( \gamma \)) has a negative significant value. If so, then the paper measures the impact of capital flight on the GDP growth in Nigeria during the period in question.

The control variables in the paper are: Value of the capital formation as a ratio of GDP, Rate of inflation, Terms of trade and Real Exchange Rate. Explanation is hereunder given for the inclusion of the variables in the model specification:

GDP which is the dependent variable is specified as a standard Cobb-Douglas production function, which links inputs- Capital (K) and labour (L) and Output. The formula is GDP = pf (K, L). This paper focuses on the importance of capital flight in explaining the gap between the financial resources and their uses. The explanation is that capital flight affects investors’ confidence in Nigeria’s domestic economy and consequently, affects the country’s economic growth rate.

Value of Gross capital formation as a ratio of GDP: this, as a variable, shows the positive effect of physical capital on growth as predicted by theory of growth.

Real Exchange Rate: Real exchange rate misalignment is among the primary determinants of capital flight. Currency uncertainty remains an important source of currency depreciation. In times when the fiscal authorities endorse exchange rate policies promoting short-run real currency appreciation of the domestic currency, economic agents tend to convert their assets into foreign assets claims while they try to avoid assets losses related to the correction of the overvalued real exchange rate. Part of these foreign claims would however be in the class of capital flight which affect Gross Domestic Product growth.

Percentage Change in terms of Trade: an improvement in terms of trade reduces input prices relative to output prices. This makes firms to have an incentive to raise quantity supplied. This invariably, would lead to a positive influence for the next year growth of GDP.

Rate of inflation: using the change in consumer price index as the percentage change in the rate of inflation permits to account for one of the important macroeconomic factors that are believed to have an important negative impact on growth (Hadjimichael, 1994).

Capital flight: in this model, it is taken to be:

World Bank (CED) + Trade Mispricing (GER)

Formula to proxy capital flight by these methods is: World Bank Residual Method:

The unrecorded flows occur when the sources of funds exceed the recorded use of funds:

\[
K = \text{(Source of funds)} - \text{(Use of funds)} = \text{[Change in External Debt + FDI (net)] - [CA Deficit + Change in Reserves]}
\]

Trade Mispricing Model:
The data on World trade exports and imports is reported to the IMF by the Direction of Trade Statistics, which makes it a feasible task to estimate the illegal flows by the estimation method hereunder, presented:

\[ K = \frac{[X_i]}{M_j} - \frac{B}{[Mi/B]} - X_j \]

Where X and M capture the mispricing on export and import respectively, and B is the adjustment factor for the cost of insurance and freight. It can be the case that bilateral trade yields an overstatement of exports or understatement of imports, which might result in the wrong sign. This paper follows the common practice in netting out such wrong signs and using the ‘gross excluding reversals’ estimates.

The functional form of equation (1) is:

\[ Y_t = f (GCF, EXR, INFLA, TOT, CAF \mu) \ldots (2) \]

Line- arising equation (2) we have:

\[ Y_t = \alpha + \beta_1 GCF + \beta_2 EXR + \beta_3 INFLA + \beta_4 TOT + \gamma CAF + \mu \ldots (3) \]

Where:

- \( Y_t \) = Gross Domestic Product
- GCF = Gross Capital Formation
- EXR = Exchange Rate
- INFLA = Inflation Rate
- TOT = Terms of Trade
- CAF = Capital Flight
- \( \mu \) = Stochastic term
- \( f = \) functional relationship
- \( \alpha \) = the intercept of the equation relationship
- \( \beta_1, > 0, \beta_2, \beta_3, \beta_4 \& \gamma < 0. \)
- \( \beta_1, 4 \& \gamma = \) coefficients of each of the independent variables

The following are the a priori expectations of the coefficients of the model:

Taking the log form of equation (3) we have

\[ \delta LRY_t = \alpha + \beta_1 \Delta GCF + \beta_2 \Delta EXR + \beta_3 \Delta INFLA + \beta_4 \Delta TOT + \gamma CAF + \mu \ldots (4) \]

Where

\( \delta LRY_t \) = change in log of Gross Domestic Product in current period

\( \Delta GCF \) = change in log in Gross Capital Formation

\( \Delta EXR \) = change in Exchange rate

\( \Delta TOT \) = change in log of Terms of Trade

\( \gamma CAF \) = Capital Flight in US Dollar in current period

\( \mu \) = the stochastic term

To specifying equation (4) in log form we have:

\[ \text{Log} (Y_t) = \alpha + \beta_1 \text{log}(GCF) + \beta_2 \text{log}(EXR) + \beta_3 \text{log}(INFLA) + \beta_4 \text{log}(TOT) + \gamma \text{log}(CAF) + \mu \ldots (5) \]

Where

\( \text{Log} \) = Natural logs

From equation (5) we specify the model in time series:

\[ \text{Log} (Y_t) = \alpha + \beta_1 \text{log}(GCF) + \beta_2 \text{log}(EXR) + \beta_3 \text{log}(INFLA) + \beta_4 \text{log}(TOT) + \gamma \text{log}(CAF) + \mu \ldots (6) \]

In order to ascertain the existence of long-run relationship, equation (6) is conducted by placing some restrictions on estimated long run coefficients of the variables. Therefore, the hypothesis for the test is stated as:

\( H_0: \beta_1 = \beta_2 = \beta_3 = \beta_4 = \gamma = 0 \) (No long run relationship –No Co-integration)

\( H_1: \beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4 \neq \gamma \neq 0 \) (There is long run Relationship Co-integration exist)
Estimation Techniques Of The Model

In order to evaluate the long run and short run relationships in this paper, Co-integration test is applied. This is because it serves efficiently for the examination of the long run relationship between the dependent and independent variables, contrary to the Ordinary Least Square (OLS) method, known for producing short run and spurious results that are mostly associated with misleading results.

4. Empirical Analysis And Discussion

The model for the study revealed the Gross Domestic Product (GDP) as the dependent variable whereas the Gross fixed capital formation (GFCF), Exchange Rate (EXR), Inflation Rate (INF), Terms of Trade (TOT) all of which determine capital flight; as well as Capital Flight itself are the independent variables that determine the economic growth.

Test For Stationarity

The paper employs the Johansen’s Co-integration analysis to identify the long-run relationships among the variables. Prior to estimating the Co-integrated autoregressive model by Johansen’s method, the stochastic properties of the data were checked. The process started with the test of the stationarity of the data for each variable, using the unit root test. This test helped in determining the order of integration of the variables. The order of integration is the number of times they have to be differenced to become stationary.

The next to this step is a test of Co-integration to find out if any Co-integrating relationship exists between Gross Domestic Product (GDP) and the explanatory variables (Gross Fixed Capital Formation, Exchange Rate, Inflation, Terms of Trade and Capital flight).

Annual data on Gross Domestic Product (GDP), Gross Fixed Capital Formation (GFCF), Exchange Rate (EXR), Inflation Rate (INF) and Capital Flight (CAF) in Nigeria from 1981 to 2016 were obtained from various issues of Central Bank of Nigeria (CBN) statistical bulletin and World Bank.

Unit Root Test

In time series study, testing the existence of Unit Root and Co-integration is of principal concern. The presence of a unit root means that the time series we are investigating is non-stationary. However, the absence of it implies that the stochastic process is stationary.

Result Of Unit Root Test

<table>
<thead>
<tr>
<th>Variables</th>
<th>ADF Statistical Value</th>
<th>Mackinnon Critical Value</th>
<th>Order of Integration</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>-4.337835</td>
<td>-2.951125</td>
<td>1(0)</td>
<td>Stationary</td>
</tr>
<tr>
<td>GFCF</td>
<td>-3.255371</td>
<td>-2.957110</td>
<td>1(2)</td>
<td>Stationary</td>
</tr>
<tr>
<td>EXR</td>
<td>-4.398770</td>
<td>-2.951125</td>
<td>1(0)</td>
<td>Stationary</td>
</tr>
<tr>
<td>INF</td>
<td>-5.767191</td>
<td>-2.951125</td>
<td>1(0)</td>
<td>Stationary</td>
</tr>
<tr>
<td>TOT</td>
<td>-6.825314</td>
<td>-2.951125</td>
<td>1(0)</td>
<td>Stationary</td>
</tr>
<tr>
<td>CAF</td>
<td>-6.825314</td>
<td>-2.951125</td>
<td>1(0)</td>
<td>Stationary</td>
</tr>
</tbody>
</table>


**SOURCES:** *Extracted from Authors’ Computation Using E-views Version 10.*

The table above shows the stationarity of the variables at different levels of differencing. The dependent variable and three independent variables namely Exchange Rate, Inflation and Capital Flight are stationary at level difference while Gross Fixed Capital Formation is stationary at second difference. It should be noted however, that the Terms of Trade variable indicates neither stationary nor no-stationary status, probably because of excess of imports over exports hence, it had no significant impact on the country’s GDP as to influence domestic investors’ decision on capital flight during the period under investigation.

**TEST FOR CO-INTEGRATION**

The next step is to test for Co-integration or long term relationship between the dependent variable and the independent variables in the study. We present below the results of the tests for Co-integration between Gross Domestic Product and the explanatory variables which are Gross Fixed Capital Formation, Exchange Rate, Inflation, Terms of Trade and Capital flight.

**CO-INTEGRATION RANK TEST (TRACE) ANALYSIS**

**Sample (Adjustment):** 1983-2016  
**Included observations:** 34 after adjustment  
**Trend assumption:** Linear deterministic trend  
**Series:** Y, C_FLT EXR GFCF INF TOT  
**Lags interval (in first differences):** 1 to 1

<table>
<thead>
<tr>
<th>Rank</th>
<th>Eigenvalue</th>
<th>Trace statistic</th>
<th>0.05 Critical Value</th>
<th>Prob.&gt;&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>0&gt;</td>
<td>0.707624</td>
<td>143.3435</td>
<td>95.75366</td>
<td>0.0000</td>
</tr>
<tr>
<td>1&gt;</td>
<td>0.656498</td>
<td>101.5333</td>
<td>69.81889</td>
<td>0.0000</td>
</tr>
<tr>
<td>2&gt;</td>
<td>0.554948</td>
<td>65.20221</td>
<td>47.85613</td>
<td>0.0005</td>
</tr>
<tr>
<td>3&gt;</td>
<td>0.498346</td>
<td>37.67706</td>
<td>29.79707</td>
<td>0.0051</td>
</tr>
<tr>
<td>4</td>
<td>0.328982</td>
<td>14.22237</td>
<td>15.4971</td>
<td>0.0770</td>
</tr>
<tr>
<td>5</td>
<td>0.019160</td>
<td>0.657775</td>
<td>3.841466</td>
<td>0.4173</td>
</tr>
</tbody>
</table>

**Sources:** *Extracted from Authors’ Computation Using E-views Version 10*

Note: Trace test indicates 4 co-integration eqn(s) @ the 0.05 level

> Denotes rejection of the hypothesis @ the 0.05 level

>> Mackinnon-Haug-Michells (1999) p-values

**Co-integrating Equation(s):** Log likelihood -3777.725

Normalized Co-integrating Coefficients Standard error in parenthesis

<table>
<thead>
<tr>
<th>Y,</th>
<th>GFCF</th>
<th>EXR</th>
<th>INF</th>
<th>TOT</th>
<th>CAF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.000000</td>
<td>-0.644665</td>
<td>-6.50E+10</td>
<td>-1.48E+11</td>
<td>2.301903</td>
<td>5.335106</td>
</tr>
</tbody>
</table>
Adjustment coefficients (standard error in parenthesis)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>D(Y)</td>
<td>0.057263 (0.02872)</td>
</tr>
<tr>
<td>D(GFCF)</td>
<td>0.026165 (0.01485)</td>
</tr>
<tr>
<td>D(EXR)</td>
<td>2.72E-12 (1.1E-12)</td>
</tr>
<tr>
<td>D(INF)</td>
<td>4.13E-13 (2.7E-13)</td>
</tr>
<tr>
<td>D(TOT)</td>
<td>-0.037127 (0.03888)</td>
</tr>
<tr>
<td>D(CAF)</td>
<td>8.15E-09 (1.1E-08)</td>
</tr>
</tbody>
</table>

Sources: Extracted from Authors’ Computation Using E-views Version 10

The Co-integration results as shown above indicate that there is rejection of the null hypothesis of four Co-integration equations at the 0.05 level.

THE LEAST SQUARE ESTIMATION RESULTS

The paper hereunder presents the Least Square estimation results from the analysis out of the Unit Root and the Co-integration tests.

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>Const</th>
<th>GFCF</th>
<th>EXR</th>
<th>INF</th>
<th>TOT</th>
<th>CAF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yt</td>
<td></td>
<td>2.10E+13 (4.412975)</td>
<td>4.250974 (7.403760)</td>
<td>-4.19E+10 (-3.624491)</td>
<td>-1.62E+11 (-1.856510)</td>
<td>-0.715475 (-1.729515)</td>
<td>-1176341 (-0.575431)</td>
</tr>
</tbody>
</table>

Sources: Extracted from the Author’s Computation Using E-views Version 10

R^2 = 0.831778
DW = 0.645655 F-statistic = 29.66717

From the above results, it is obvious that all the coefficients led to the expected a priori signs. In specific terms, the indication is that the GDP is affected by the explanatory variables in the model. The coefficient of the constant parameter is positively related with the GDP. This implies that if all the explanatory variables are held constant, GDP which the symbol Yt represents in this paper, will increase by 2.10E +13 units.

The coefficient of GFCF is 4.250974. The implication of this is that there exists positive relationship between GDP and GFCF, which is in accordance with the stated a priori expectation. Thus, a unit increase in GFCF leads to 4.250974 increases in GDP.

The coefficient of EXR is negative (-4.19E +10). This shows that a negative relationship exists between GDP and exchange rate. It means that an N$/ unit of GDP variation in exchange rate will result to 4.19E+10 decrease in GDP. The coefficient of INF is as well negative, which means that there is a negative relationship between inflation and GDP, which is in tandem with the stated a priori expectation. Thus, at any increase in inflation, there will be a 1.62E+11 decreases in GDP. The ratio of export to import during the period, led to a decrease in
GDP by 0.715475. This is probably so because of low productivity in the economy, making import higher than export.

Finally, the coefficient of CAF is equally negative and in line with the a priori expectation, showing that there is negative relationship between the GDP and capital flight. At any increase in CAF, there will be a decrease in GDP by 1176341 units.

From the OLS table it is found that $R^2$ value 0.83 is of high explanatory power of the regressors in the model. Besides, the adjusted $R^2$ for the model is 0.80, indicating that at least 80 per cent variations of the value of the country’s GDP is explained by variations in the explanatory variables as contained in the study. The 29.66 F-statistic is significant enough to confirm the joint significance of the regressors when combined together. The Durbin-Watson statistics of 0.645655 indicates the absence of auto-correlation in the model.

5. CONCLUSION AND RECOMMENDATIONS

The main objective of this study is to investigate whether capital flight has some force to bear on economic growth in Nigeria. It is found that it does in line with some studies (see David, 2012 and Albert, 2012).

It is deduced from the results that it is only the GFCF that was positive for GDP growth during the period in question while the rest of the variables- EXR, INF, TOT and CAF, all had negative relationship. The result reveals that EXR is significant, showing the importance of the variable in repatriation of profits legally and illegally from the country. EXR determines the foreign currency equivalence of the capital displaced from the country and also eroded amount of financial resources moved out of the country.

IFL is estimated to be significant which means that INF and its effect in the model are significant because of its depressing influence on the economy as a whole. Differently stated, persistent increase in prices of goods and services will lead to capital flight in the economy. TOT has significant negative impact on the GDP growth because of heavy dependent of the economy on imports over exports, which accentuate capital flight. In other words, Nigeria imports more than it exports which drive away capital for investment from the country.

From the result obtained and interpreted, the paper concludes that GDP growth in Nigeria is affected negatively by EXR, INF, TOT and CAF but positively by GFCF. This means that these variables are in line with the a priori expectation. In view of the findings, the paper is of the opinion that the Nigerian authority should put in place appropriate policy framework and its implementation to ensure high productivity in the economy. This will not only guarantee availability of goods that fetch foreign currency into the country, reduce inflation in the economy, encourage exports of excess produced goods for foreign exchange earnings instead of using the available scarce foreign currency to import what can be produced in the country. With this, the economy instead of fostering capital flight for negative impact on the GDP growth, reverse will be the case.

REFERENCES:


