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CAPITAL FLIGHT AND THE NIGERIAN ECONOMY (1986-2016)

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ABSTRACT: *This study examined the impact of capital flight on the Nigerian economy from 1986-2016 Real Gross Domestic Product and Capital Flight were used as the endogenous variables while Political instability, Amount of Looted funds, Interest Rate Differentials, Expenses on Foreign Medical Services and Education Abroad and Domestic Investment were the explanatory variables. Data for these variables were sourced from the Central Bank of Nigeria (CBN) Statistical Bulletin, World Bank Development Index, Economic and Financial Crimes Commission Bulletins, Tertiary Education Trust Fund Publications and the Federal Ministry of Information Annual Briefings and Extracts (various editions). The variables were found to be integrated of mixed order hence we confirmed the long run relationship existing among the variables using the Bounds test. The simultaneous equation model shows a negative and significant relationship between capital flight and economic growth. Domestic Investment and Interest Rate Differential both have positive relationships with Real GDP while Political Instability, looted Funds, Expenses on Foreign Education and Medical Services were found to have positive and significant impact on Capital Flight. The implication of these findings is that Capital flight have negatively impacted on Economic growth of Nigeria with Foreign Education and Medical Expenses and Looted Funds being the major channels through which huge capital leave the country. It was recommended that our education and health infrastructures should be adequately funded and maintained. Also, the government should ensure good governance and prosecution of corrupt officials in order to discourage capital and encourage domestic investments.*

KEYWORDS: Capital Flight, Looted Funds, Interest Rate Differentials, Economic Growth

INTRODUCTION

It is ironical that a country, ranked among the highest producers of crude oil in the world, and who earns huge amount of foreign exchange from its exports still falls short of capital to develop, maintain and upgrade her infrastructure. Nigeria is presently saddled with the problem of inadequate basic infrastructure that has hindered the development of the country and its transformation into an industrial economy. This could be as a result of the fact that the economy has constantly lost resources to capital flight down the ages. The country has continued to face severe capital flight challenges irrespective of the huge foreign exchange earned.

The issue of capital flight from Nigeria and other developing countries has continued to receive wide attention from scholars and researchers. Over the years, many scholars have expressed serious concerns on the amount of capital flight, its causes and consequences on the economy. Whereas investors from developed countries continue to respond to investment opportunities those from developing countries like Nigeria try to escape the high risk they perceive at home, thereby investing outside the country.

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The trend of capital flight in Nigeria shows that capital flight has been a recurrent phenomenon. It is estimated that the scourge has been taking place even before the adoption of the Structural Adjustment Programme (SAP) in 1986.About $1.6 trillion to $144 trillion disappear annually from developing countries without trace and end up in developed countries.

A survey of six sub-Saharan African countries (including Nigeria) between 1989 and 1999 showed that Nigeria has the largest incidence of capital flight of $21billion-representing 60% of the combined capital flight of the six countries in sub-Saharan Africa.

It is observed that Nigeria lost $233.9 billion to capital flights transfers over the period 1970-2010. The estimated capital flight from Nigeria between 1986 and 1990 is put at $9.8 billion, with $77 billion in outflow between 1989 and 1990 alone. The CBN bulletin of 2009 shows that from 2008 to 2009, Nigeria lost a colossal sum in excess of $37 billion through capital flight. The trend within this period was very noticeable between September and November 2009 when several billions of US dollars were purchased through banks and bureau de-change (Saheed and Ayodeji, 2012).

The CBN Bulletin of 2015 also shows that the net flows in Nigeria from 1986 to 2016 which is our period of study have been very worrisome. The statistics shows that the worsening situation was recorded in 1999 and 2011 with $1.1 trillion and $8.8 trillion in net capital flight flows respectively.

The causes of the above increasing trend of capital flight in Nigeria are often traced to disincentives created mainly by distortions in domestic macroeconomic policy. Corruption on the part of public officers, varying risk perception, weak institutions, rising taxes, weak economic growth, fiscal deficit and financial sector constraints.

It is expected that the trend would continue to sky rocket even beyond the period of study going by the high rate of political unrest, lack of confidence in the domestic economy, and corruption on the part of public officials in the country. It is thus, against this backdrop that this study is undertaken to determine the impact of capital flight on the Nigerian economy.

In spite of the huge attention given to capital flight, it still remains a serious problem in a number of developing economies. For the past four decades, Nigeria has experienced this unresolved and disturbing rate of capital flight with its attendant consequences. Recently, there have been series of pleas by successive Nigerian governments to the foreign banks and other international financial institutions to release and repatriate stolen and diverted funds in millions of dollars by past leaders of the country back home. This stolen money by past leaders also constitutes a major part of capital flight but in most cases they remain unrecorded in the financial statements of the CBN.

The alarming rate of foreign medical services sought by Nigerians both private individuals and government officials amounts to more than $6.25 billion USD (Federal Ministry of Information, 2015) while foreign education expenses amounted to more than $3 billion USD in 2014 only (TETfund annual report, 2014). The effect of this huge capital flight from the Nigerian economy is yet unknown which is the major trust of this research work.

The damaging consequences of capital flight on the economy cannot be over emphasized. Capital transferred abroad from the country cannot in any way contribute to domestic investment and other productive activities. It is still unknown whether the significant lower investment levels with corresponding multiplier consequences on other aspects of the economy

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including the growing rate of unemployment, social unrest, hunger and starvation, and general economic recession in the country are mainly as a result of capital flight or other unknown factors yet to be unravelled.

Furthermore, there is still a wide spread notion that the unstable political climate; the "hate speech", agitations, militancy, terrorism etc. have increased the rate of capital flight in the economy. Whether this is the major cause remains a mystery to be investigated by this research work. The income and wealth outside the domestic economy cannot be subjected to domestic taxes, thereby contributing to severe loss of revenue by the government.

The objective of the study, therefore, is to examine the relationship between capital flight and economic growth of Nigeria and to find out the extent each of capital flight variables affect the economy. Findings of this research hopefully would enable the relevant authorities take measures to minimize the incidence of capital flight in Nigeria knowing its implications. The study is limited to examining major indices of capital flight in Nigeria which include Foreign Education and Medical Services, Political instability and Looted funds and their impact on Nigeria's real gross domestic product (GDP) for the period 1986 to 2016. The period is significant because 1986 witnessed the adoption of the Structural Adjustment Programme in Nigeria (SAP) and since then to date, the county has continued to witness capital flight in leaps and bounds.

LITERATURE/THEORETICAL UNDERPINNING

For the purpose of this study, the term Capital Flight implies the large-scale movement of financial assets and capital from one country to another due to events such as political or economic instability, currency devaluation, imposition of capital controls, quest for education or medical services etc. (investopedia, 2017). Many schools of thought see out-flows of capital from developed countries as foreign direct investment while the same activity is referred to as capital flight when it is undertaken by residents of a developing country (Akani, 2015). However, it must be clarified that what makes the difference is the use to which such inflow or outflow has been put.

Capital flight according to Akanbi (2015) specifically refers to the movement of money or financial assets from investments in one country to another in order to avoid country specific risks according to the holders perception (such as hyperinflation, political turmoil and anticipated depreciation or devaluation of currency), in search of higher yield. According to Schneider (2003) it involves the outflows of resident capital which is motivated by economic and political uncertainties in the home country. Walters (2002) in trying to clarify what constitutes capital argues that "international flows of direct and portfolio investment under ordinary circumstances are rarely associated with the capital flight phenomenon". He went further to state that "it is when capital transfers by residents conflicts with political objectives that the term "flight" comes into general usage" Thus, capital flight can mean lost resources to the domestic economy and therefore lost opportunities or foregone goods and services essential to sustaining economic growth (Beja 2006).

Nyong (2003) noted that capital flight should be seen as any form of abnormal capital outflows from a developing country by economic agents with the intention of concealing such flows. Ajayi (1997) opined that this is abnormal because one expects capital to flow from countries

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with resource surplus to countries with scarce resources. Investors from developed countries are seen as responding to investment opportunities while investors from developing countries are said to be escaping the high risks they perceived at home. This implies that there may be normal or legal and abnormal or illegal flows. Capital flight has both legal and illegal manifestations.

Legal Capital Flight (Capital Outflow): This is the consequences of capital in full accordance with the law (Kosarev and Grigoreyev, 2000). The legal component is generally after-tax money, properly documented and remaining on the books of the entity from which it is transferred. There is ample evidence that such flows enhance economic growth.

Illegal Capital Flight: This is quite different, almost always tax evading and therefore, illegally out of the countries from which it comes. It is improperly documented or linked to proceeding or following falsified transactions and disappears from any record in the country of origin (Baker, 2000). Moreover, when capital leaves the country illegally, it will not appear in the national accounts of any other country, but rather, will settle down in somebody's pocket.

According to Kosarev and Grigoreyev (2000), capital flight presents a danger and leads to the impoverishment of the economy, worsening the possibility of investment and prospects for further development of the economy.

Ragusett and Beja (2004) defined capital flight as the residual capital outflow. It is measured as the difference between capital (money) inflows into a country and the recorded money outflows. That is, directing attention towards the missing money that has left the country without having being officially recorded as leaving. The above survey of capital flight attests to the fact that there are different views about the concepts of capital flight.

However, it can be generally deduced that capital flight refers to capital (funds) that is running away from the domestic financial market in order to avoid losses and is in conflict with the interests, goals, and objectives of the domestic society (Harrigan et al, 2007).

Capital Flight and Economic Growth: Capital flight has been reported to exert detrimental effects on both the short and long run growth of the economy. The first notable effect is the fact that capital transferred abroad cannot contribute to domestic investment and thus it is regarded as diminishing possibilities for economic development. Necessary imports are limited by the foreign exchange drain from both the flight itself and the fact that earnings on such flight are not repatriated.

The rate of capital formation is greatly reduced by capital flight and this adversely affects the country's current and future growth aspects. If this capital had been invested in production of domestically produced export goods that could finance imports, the import constraint on growth could have been relaxed. Nigeria is currently faced with infrastructural deficit that has impaired the development of the country and its transformation into an industrial economy. The crux of the argument is that capital flight reduces domestically available investible capital. It represents forgone investment in manufacturing plants, infrastructure, and other productive capacity.

Furthermore, much of the capital that flees the country is not taxed, thus depriving the country of revenues capable of contributing to fiscal deficits and constraining expenditures on social welfare programs, security challenges in the country, and infrastructural development. This hinders economic growth because investment has been diverted abroad and also because

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necessary imports are limited by foreign exchange drain from both the flight itself and the fact that earnings on such assets are often not repatriated as observed by Pastor (1990).

Finally Schneider (2003) argues that capital flight may reduce growth by destabilizing the financial system as sudden outflows of large resources would call for adjustment in interest and exchange rate policies.

Determinants of Capital Flight

There are many determinants of capital flight. The following factors are discussed for the purpose of this study:

i. Exchange Rate Overvaluation

ii. Inflation

iii. Macroeconomic Instability

iv. Political Instability

v. Capital Inflows/FDI

vi. Rate of Return Differentials

vii. Public Policy Uncertainty

viii. The Countries GDP

i. Exchange Rate Overvaluation: Overvalued exchange rate is often found to be an important variable in studies of capital flight and its underlying determinants. An overvalued exchange rate leads to increasing expectations of depreciation in the near future (Harrigan et al., 2007). Thus, to avoid impending future welfare losses, residents will be motivated to hold at least part of their assets abroad. Nigeria is one of the countries whose domestic currency has been overvalued for nearly the whole duration since her independence and black market premium has also been very high since 1986. In the same way, the continuous demand for foreign currency, especially the American dollar, resulting from capital outflow tends to pressurise the exchange rate.

ii. Inflation: This is a sustained rising trend in the general price level. High inflation erodes the real value of domestic assets, stimulating residents to hold assets outside the country. Inflation can also be perceived as a signal for how much the government has resorted to taxing domestic financial assets through money creation (Inflation tax). For Nigeria, high inflation has resulted in the vicious circle of money printing and further increase in inflation.

iii. Macroeconomic Instability: This occurs when there is a mismatch between aggregate demand and aggregate domestic supply. The cause of this instability may be diverse, for example, political tension and instability, wrong or lack of incentive structures and institutions to let markets efficiently coordinate demand and supply and heavy government involvement which may put markets at the side line. The symptoms of macroeconomic instability may thus become manifest in a number of ways, budget deficit will raise current account deficits increase, exchange rate over valuation occurs and inflation is growing. Variables describing such factors are often found in studies on the determinants of capital flight.

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iv. Political Instability: Public sector behaviour may have an impact on the risks and uncertainty regarding environment and its outcome. More specifically, residents may decide to hold their assets abroad based on lack of confidence in the domestic political situation, perceived high level of corruption and the consequences of these factors for the future value of the assets. In summary, perceived political instability may generate capital flight because of the uncertainty associated with it. A stable environment is a predictable environment and therefore, attracts investment. In the Nigerian context, political instability has been very tensed since 1993 to date. However, it has now degenerated to insecurity caused by kidnapping, militancy in the Niger Delta region and Boko Haram insurgence in the North Eastern Nigeria (Akani, 2013). This uncertainty may stimulate investors to sell their domestic assets and buy foreign assets. Uncertainty has been the environment under which economic activities in Nigeria have been operating and this has been the bane of capital flight.

v. Capital Inflows/FDI: The simultaneous occurrence of capital inflows has caused some researchers to argue that capital inflows in the form of aid disbursement/FDI to developing countries are a major cause of capital flight (Ajayi, 1995).If the case involves public sector borrowing, the availability of foreign exchange increases the potential for graft and corruption. Evidence shows that over the years, significant proportions of aid inflows which were managed by the Nigeria government ended up roughly half the aid amounts reaching the intended beneficiaries while the other portion was 'lost' within the government structures.

vi. Rate of Return Differentials: Rate of return differential is a measure of relative attractiveness of domestic assets as compared to foreign assets. Relatively low and unattractive domestic real interest rates can be a reflection of domestic financial repression that can stimulate outflows, especially when they are at levels that create significant interest rates differential (after making adjustments for exchange rate changes and taxes). In this case, capital flight may occur simply because the returns on assets are higher abroad compared to assets held domestically.

vii. Public Policy Uncertainly: In an environment where the contents and direction of current and future public policies are uncertain or unstable, domestic investors will be uncertain about the impact of these policies on the real value of domestically held assets in the future (Hermes et al, 2002). This uncertainty may stimulate investors to sell their domestic assets and buy foreign assets. The economic activities in Nigeria have been operating under an uncertain environment and this motivates residents of the country to move their assets outside Nigeria to foreign countries.

viii. Capital Flight and Nigerian Economy

The existence of substantially larger capital flight from Nigeria both in absolute and relative terms than from other sub-Saharan African countries had been confirmed by many studies.

The lack of financial resources for appropriate economic development has pushed most African countries including Nigeria into external borrowing to boost economic growth. The deteriorating economic performance in Nigeria since the early 1980's has been accompanied in many instances by substantial amount of capital flight featuring lower export earnings, reduced income growth and mounting unpaid external debt obligations.

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More still, lack of confidence in the domestic political system with weak governance has been a major cause of capital flight in Nigeria. Political instability often breeds macroeconomic instability, including economic mismanagement, and illicit diversion of public funds.

Claessens and Naude (1993) estimated capital flight from 84 countries over the period 1971 to 1990 using the world Bank residual measure and discovered that Nigeria had the seventh largest annual average outflows of capital and was sixth in terms of the ratio of capital flight

Theoretical Underpinning

Ajayi (1992) and Pastor (1989) first identified t*he Investment Diversion* theory which relates to capital flight in an economy. This theory postulates that due to the macroeconomic and political uncertainty in developing countries and the simultaneous existence of better investment opportunities in advanced countries such as high foreign interest rate, wide array of financial instruments, political and economic stability, favourable tax climate and secrecy of accounts, some unscrupulous and corrupt leaders and bureaucrats usually siphon scarce capital resources from their countries to advanced countries. These funds are therefore, not available for investment at home leading to decline in aggregate investment, low economic growth, hence declining employment, increase dependency ratio and high death rate. These negative macroeconomic effects on these countries sometimes motivate the necessity to borrow from abroad to reactivate the domestic economy, which is sometimes further siphoned thereby perpetrating external dependency and indebtedness. The liquidity constraint or crowding-out effect may result to depreciation of the local currency, if the authorities are operating a floating exchange rate regime (Ajayi, 1992). An attempt to defend the external exchange rate at this time may lead to loss of international reserves (Pastor, 1989). The investment diversion thesis provides one of the well-known negative consequences of capital flight in the countries involved.

Empirical Review

Olatunji and Oloye (2015), examined the impact of capital flight on the economic growth of Nigeria. Their study used co-integration, Ordinary Least Squares (OLS) and Error Correction Mechanism (ECM) as the main estimation techniques. The result of their analysis showed that capital flight, foreign reserve, external debt, foreign direct investment and current account balance co-integrated with Nigeria's Gross Domestic Product (GDP). They also discovered that capital flight had negative impact on the economy.

Ameth (2014) examined the effect of capital flight on economic growth in the Franc Zone (FZ) for the period 1970-2010 and found that real capital flight from those countries were positive and massive with a magnitude of roughly 86.8billion USD representing 12.21% of GDP and 5.3 times of domestic investment. At the same time, the FZ countries experienced low and very volatile investment and growth rates. The analysis showed that capital flight significantly reduces economic growth in the Franc Zone countries. The results also revealed that domestic investment, credit to private sector, the quality of institutions and domestic savings played an important role in explaining the influence of capital flight on economic growth in the zone and were therefore, important channels that affected the growth of capital flight in those zone.

Akani (2013), investigated the determinants, measurement and impact of capital flight on the economic growth of Nigeria using Ordinary Least Square (OLS) technique, multiple regression and descriptive statistics. His results revealed that, large capital outflows from Nigeria's Niger

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Delta Region is accounted for by political instability, high fiscal deficits, high interest rate and high profile external debt servicing to GDP ratio.

Saheed and Ayodeji (2012) analysed the impact of capital flight on exchange rate and economic growth in Nigeria. Their findings revealed that capital flight has a positive and significant impact on exchange rate in Nigeria.

Valeriia (2009) investigated the impact of capital flight on economic growth using panel data set, with estimates of capital flight by different proxies for all developing countries in the world. 139 countries were used for the period 2000-2006, and found that capital flight has a negative influence on the GDP growth through reducing domestic investment. In turn, it lowers labour ratio, which reduces labour productivity and consequently output.

Njimanted (2008), estimated the determinants, measurement and impact of capital flight on real economic growth of Cameroon using two-stage least squares technique after the application of co-integration and error correction mechanism. The data used covered the period 1970-2005. His result revealed that large capital outflows from Cameroon is accounted for by political instability, fiscal deficit, interest rate, inflation differential and internal debt servicing to GDP ratio.

Otene (2010) examined the impact of capital flight on real economic growth in Nigeria using two-stage least squares technique for the period 1970-2008. In the estimated model, capital flight had a negative and significant impact on economic growth and exchange rate. Also the findings indicated that non-performance of domestic resources could induce capital flight. The study recommended adoption of anti-inflationary policies and stable exchange rate among others, which could induce foreign capital inflow and boost private domestic investment.

From the empirical review, it is clear that few research works have been carried out on the nexus between capital flight and Nigeria's economic growth. The capital flight variables used by most of these researchers were political instability, interest and exchange rate differentials, inflation rate, external reserve, foreign direct investment, domestic investment and quality of institutions. Unlike these studies, ours identified some key variables of capital flight which we incorporated in our capital flight model viz: looted funds (by politicians and economic saboteurs), foreign education expenses and foreign medical treatment expenses. In addition, the methodology adopted in this study differed with previous works in the sense that ARDL bounds test technique was used to test for cointegration (having established a mixed order of integration of the variables.

Model Specification

Based on the empirical review, we note that Njimanted (2008) and Otene (2010) each adopted the simultaneous equation model in their study of capital flight and economic growth. Both researchers used Real GDP and Capital flight (respectively) as endogenous variables while Interest and Inflation rate differentials, internal debt servicing, inflation rate, fiscal deficit, real GDP and capital flight formed the exogenous variables.

In this study, we modify the above models by introducing some key capital flight variables (as noted above). The variables of interest are amount of looted funds (both recovered and unrecovered), expenses on foreign medical services, expenses on foreign education, domestic investment and political instability.

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Expressing the model in implicit form, we have:

RGDP = F(CAFL, POLINST, IRD, LTFDS, DOMINV) ...(1)

CAFL = F(RGDP, POLINST, EXFEDU, FMEXP, LTFDS)...(2)

According to Egbulonu (2005), when the dependent variable in one equation is also an explanatory variable in some other equation(s) we have a simultaneous equation model. Adopting a log-linear model, we obtain two structural equations, which in econometrics format yield equations below:

$$LnRGDP = b_0 + b_1LnCAFL + b_2POLINST + b_3IRD + b_4LnLTFDS + b_5LnDOMINV + U_1 \quad ...(3)$$

$$LnCAFL = b_6 + b_7LnRGDP + b_8POLINST + b_9LnEXFEDU + b_{10}LnFMEXP + b_{11}LnLTFDS + U_2 \quad ...(4)$$

Where;

RGDP = Real Gross Domestic Product at Constant price

CAFL = Capital Flight

POLINST = Political Instability

IRD = Interest Rate Differentials

LTFDS = Amount of Looted Funds (recovered and unrecovered)

EXFEDU = Expenses on Foreign Education

FMEXP = Foreign Medical Expenses

DOMINV = Domestic Investment (Public and Private)

Ln = Natural Logarithm

U = Stochastic Error term

$b_0 - b_{11}$ = Parameters of the model to be estimated.

In equation (3), Real GDP is endogenous while Capital Flight, Political Instability, Interest Rate Differentials, Amount of Looted Funds and Domestic Investment are exogenous. And in equation (4), Capital Flight if endogenous while Real GDP, Political Instability, Expenses on Foreign Education, Foreign Medical Expenses and Amount of Looted Funds are exogenous. This categorization is displayed in Table 1 below:

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Endogenous Variables	Exogenous Variables	Instrumental Variables
1. Capital Flight, 2. Real Gross Domestic Product	1. Capital Flight, 2. Real Gross Domestic Product, 3. Political instability, 4. Expenditure on Foreign Education, 5. Expenditure on Foreign Medical Services, 6. Looted Funds. 7. Interest Rate differential 8. Domestic Investment	1. Political instability, 2. Expenditure on Foreign Education, 3. Expenditure on Foreign Medical Services, 4. Looted Funds. 5. Domestic Investment

Table 1: Identification of Endogenous, Exogenous and Instrumental Variables

Source: Computed by the Researchers

Before carrying out estimation of the parameters of the structural equations, we first examine the identifiability of each equation in order to determine whether a unique solution exists for the structural parameters. This would also enable us to know the appropriate econometric technique to employ in the analysis. The test for identification is done using the order and rank procedure.

In the order test which is a necessary but not sufficient condition, an equation is identified if $R - r_i \geq g_i$

Where R = number of exogenous variables in the model

r_i = number of exogenous variables in equation i (i = 1, 2)

G = number of endogenous variables in the model

g_i = number of endogenous variables in equation i (i = 1, 2)

In the rank test, which is a sufficient condition, an equation is identified if at least one non-zero determinant of order G – 1 can be formed from parameters excluded from that equation.

Equations	G	R	r_i	g_i	$R - r_i$	$g_i - 1$	Remark
Equation 1	8	6	4	2	6-4=2	2-1=1	*Over identified*
Equation 2	8	6	4	2	6-4=2	2-1=1	*Over identified*

Table 2: Model Identification Table

From Table 2 above, we see that the two equations "might be' over-identified. Similarly, applying the rank test, we see that each of the two equations satisfied the rank test hence the two equations are over-identified. Therefore, the two-stage least squares (2SLS) is used to estimate the structural equations.

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RESULTS/FINDINGS

The result of the unit root test on the variables is summarized below

Variable	ADF test stat. at level	ADF test stat at 1st diff	5% critical value	Order of integration
lnRGDP	-0.071499	-3.239849	-2.968	I(1)
lnCAFL	-0.744164	-5.042525	-2.968	I(1)
POLINST	-1.424184	-8.239258	-2.968	I(1)
IRD	-3.623166	-5.028561	-2.968	I(0)
lnLTFDS	-2.997381	-1.684467	-2.968	I(0)
lnEXFEDU	-4.081922	-8.009175	-2.968	I(0)
lnFMEXP	4.132214	-2.720861	-2.981	I(0)
lnDOMINV	-1.671372	-3.439880	-2.968	I(1)

Table 3: Unit Root Test Result

Source: Extracted from E-views Output

The unit root test above shows that Real GDP, Capital flight (lnCAFL), Political instability index and Domestic investment (lnDOMINV) are stationary at first difference with their order of integration being I(1) process. All the other variables; Interest rate Differential (IRD), Looted funds (lnLTFDS), Expenses on Foreign education and medical are stationary at level i.e. they are I(0) process; this means that the statistical properties of these listed variables are constant over the time period (1986-2016) and since there are no I(2) properties, we can go ahead to estimate using these variables.

Bounds Test For Cointegration

Since the variables are integrated of mixed order i.e. I(0) and I(1), we test for the long run properties of the data using the Bounds test as explained in Pesaran et al (2001). The result of the Bounds test is summarized below:

ARDL Bounds Test
Null Hypothesis: No long-run relationships exist

Test Statistic	Value	k
F-statistic	7.230245	4

Critical Value Bounds

Significance	I0 Bound	I1 Bound
10%	2.45	3.52
5%	2.86	4.01
2.5%	3.25	4.49
1%	3.74	5.06

ARDL Bounds Test
Null Hypothesis: No long-run relationships exist

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Test Statistic	Value	k
F-statistic	14.73789	4

Critical Value Bounds

Significance	I0 Bound	I1 Bound
10%	2.45	3.52
5%	2.86	4.01
2.5%	3.25	4.49
1%	3.74	5.06

Table 4: Bounds Test for Equations 1 and 2

Source: Extracted from Eviews Output

The table above shows the bounds test for both equations of the GDP – Capital flight model. The F-statistic value for the first equation is 7.23 and 14.74 for the second equation. Since the F-statistic values are greater than the I(0) and I(1) bounds critical values at 5%, we reject the null hypothesis of no long-run relationship and conclude that a long run relationship exists amongst the variables. Hence our Capital Flight indices have long run implications for the growth of the Nigerian economy.

Model Estimation

Result of the two-stage least square estimation is summarized below:

Dependent Variable: LNRGDP				
Method: Two-Stage Least				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.615242	1.377205	4.077275	0.0004
LNCAFL	-0.038825	0.011782	-3.295281	0.0195
POLINST	-0.051394	0.013581	-3.784257	0.0018
IRD	0.063576	0.074048	0.858589	0.3987
LNLTFDS	-0.108002	0.042559	-2.537701	0.0003
LNDOMINV	0.138318	0.089712	1.541795	0.1357
R-squared	0.798169	Mean dependent var		10.32323
Adjusted R-squared	0.757803	S.D. dependent var		0.508903
S.E. of regression	0.250449	Sum squared resid		1.568118
F-statistic	23.08959	Durbin-Watson stat		1.755390
Prob(F-statistic)	0.000000	Second-Stage SSR		0.528036
J-statistic	6.92E-37	Instrument rank		6

Table 5: Modelling Economic Growth and Capital Flight by 2SLS

Source: Extracted from Eviews Output

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Dependent Variable: LNCAFL				
Method: Two-Stage Least Squares				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-40.01554	26.51137	-1.509373	0.1437
LNRGDP	-4.576572	1.573768	2.908035	0.0121
POLINST	2.722618	1.380255	1.972547	0.0597
LNEXFEDU	1.281225	0.464235	2.759863	0.0107
LNFMEXP	0.587580	0.164923	3.562753	0.0199
LNLTFDS	0.296212	0.040591	7.297479	0.0000
R-squared	0.768535	Mean dependent var		13.48871
Adjusted R-squared	0.722243	S.D. dependent var		5.563274
S.E. of regression	2.931996	Sum squared resid		214.9150
F-statistic	15.12359	Durbin-Watson stat		1.924174
Prob(F-statistic)	0.000001	Second-Stage SSR		278.4433
J-statistic	5.73E-39	Instrument rank		6

Table 6: Modelling Capital Flight by 2SLS

Source: Extracted from Eviews Output

DISCUSSION

In the Real GDP – Capital Flight model, a positive relationship exists between Interest rate differentials (IRD) economic growth and between Domestic Investment (lnDOMINV) and economic growth (Real GDP) increasing by 0.0636 and 0.1383 units respectively. Capital flight (lnCAFL), Political instability (POLINST), and Looted funds (lnLTFDS) have negative relationship with Real GDP and are rightly signed based on the apriori expectation. This means that as these variables increase, economic growth (Real GDP) decrease; a unit increase in Capital flight (lnCAFL), Political instability (POLINST) and Looted funds (lnLTFDS) will cause Real GDP to decrease by 0.0388, 0.0513 and 0.1080 units respectively. These variables are also significant determinants of economic growth of Nigeria.

For the Capital flight equation, Real GDP has an inverse relationship with capital flight meaning that for every unit increase in Real GDP, capital flight decreases by 4.5766 units which is in agreement with our apriori expectation. Furthermore, all the indices of capital flight (Political instability, Looted funds, expenses on foreign education and medical services) have positive coefficients meaning that they all increase capital flight by 2.7226, 0.2962, 1.2812 and 0.5876 units respectively. This is in conformity with economic theory and apriori expectation since these variables are major constituents of capital flight in the economy. The explanatory variables included in the model accounted for between 72% to 76% variations in economic growth and capital flight respectively. All the explanatory variables are significant determinants of Capital flight.

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The individual significance of the variables are further tested below:

Dependent Variable = Real GDP			
Variables	**t-statistic**	**p-value**	**Conclusion**
Capital flight	-3.295281	0.0195	Statistically significant
Political instability	-3.784257	0.0018	Statistically significant
Interest rate differentials	0.858589	0.3987	Not Statistically significant
Looted Funds	-2.537701	0.0003	Statistically significant
Domestic Investment	1.541795	0.1357	Not statistically significant
Dependent Variable = Capital Flight			
Variables	**t-statistic**	**p-value**	**Conclusion**
Real GDP	2.908035	0.0121	Statistically significant
Political Instability	1.972547	0.0597	Not Statistically significant
Foreign Education	2.759863	0.0107	Statistically significant
Foreign Medical Services	3..562753	0.0199	Statistically significant
Looted Funds	7.297479	0.0000	Statistically Significant

Table 7: Summary of Individual Test (t-statistics)

Source: Extracted from Eviews9 Output

The above table 4.7 shows the individual significance of the variables for both equations. Capital flight, Political instability and Looted funds are all statistically significant hence we reject their respective null hypothesis and conclude that Capital flight, Political instability and Looted funds have significant effect on Nigeria's economic growth. Interest Rate differentials and Domestic investment have no significant effect on economic growth of Nigeria.

In testing for the individual significance of capital flight indices, we see that Real GDP, Expenses on Foreign education and medical services as well as looted funds significantly affect Cap[ital flight from the Nigerian economy at 5% level, while Political instability does not significantly affect capital flight.

Implication to Research and Practice

The findings made in this research are summarized as follows:

1. Capital flight has a negative impact on economic growth in Nigeria reducing the overall Real GDP by 0.0388 units annually. This confirms the bi-directional causal relationship between Real GDP and Capital Flight in the Nigerian economy. This finding agrees with the empirical works of Olatunji & Oloye (2015), Ameth (2014), Akani (2013) and Ajadi (2008). These researchers all came to the same conclusion that Capital flight influences the economy negatively and contributes significantly to the overall decline in domestic investment and economic growth.

2. Political Instability and Looted funds both have negative and significant impact on Nigeria's economic growth reducing it by 0.05139 and 0.1080 units respectively. The negative coefficient of political instability is in conformity with the findings of Ajadi (2008) who found a negative relationship between the two variables in Cameroun. The inclusion of Looted funds in our model is a novelty owing to the fact that previous

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researchers failed to capture this very important determinant of capital flight in the study of Capital flight – economic growth nexus.

3. Interest rate differentials and domestic investment were found to correlate positively with economic growth increasing it by 0.06358 and 0.13832 units respectively. The use of interest rate differential agrees with Ajadi (2008), Njimante (2008) and Nyong (2000) who established a positive effect of interest rate differentials on capital flight and economic growth. Domestic Investment in Nigeria is positively related to economic growth but is not significant in terms of its impact on economic growth due to the high detrimental effect of capital flight on the economy.

4. The major determinants of capital flight employed in the model – Looted funds, Political instability, expenditure on foreign education and medical services exert positive and significant influence on capital flight except for political instability which has no significant effect on capital flight. The non-significance of political instability in determining capital flight is attributed to the fact that capital flight is experienced in the economy even in the absence of political upheavals in Nigeria, therefore, numerous other factors account for capital flight but not particularly political instability. This is further supported by Onwioduokit (2002) and Makocheckanwa (2007) who in their outline of the major determinants of capital flight excluded political instability implying its less significant nature in explaining capital flight.

5. Expenditures on Foreign education, Foreign Medical services and Looted funds are all significant determinants of Capital flight in Nigeria. We also found that Capital Flight has a long run effect on Nigeria's economic growth.

CONCLUSION AND RECOMMENDATIONS

The issue of existence of, and how to deal with capital flight is certainly difficult to prescribe. Nevertheless, it is one of the general problems of capital flight. There is no doubt that capital flight is a lost opportunity for the economy. Our findings have shown that Capital fight has a negative and significant impact on economic growth in Nigeria. The major factors that lead to capital flight in Nigeria include foreign medical services, foreign education, looted funds and unstable economic policies, among others. The overall conclusion drawn from this study is that capital flight exerts a significant negative impact on economic growth while the state of the economy on its own encourages capital flight in Nigeria.

It follows that to stem capital flight, the following policy recommendations are to be put in place:

1. Government should ensure that world class medical facilities are built in major cities of Nigeria with adequate staffing and remuneration of the workers so as to discourage medical treatment abroad. In particular, Political office holders and Government officials should be mandated to seek medical services at home rather than travelling abroad for every little ailment thereby causing the country huge capital flight.

2. It is reported that Nigerians spend over $3billion USD annually on education overseas. This amounts to huge capital flight from the economy considering the increasing exchange rate of the Naira to USD. Government can discourage this by ensuring

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adequate funding of our existing secondary and tertiary education system and make sure that education needs of our tertiary institutions are met to avoid the unnecessary strike actions witnessed in Nigerian public schools. Also, private tertiary institutions should be encouraged by way of granting them tax relief for a period of time, as well as providing them with some grants to aid their operations.

3. It is essential to provide good governance. Good governance is essential for sustainable development. Sound democratic institutions responsive to the needs of the people, curbed political crisis and improved infrastructure are the basis for sustained economic growth in Nigeria and reduced capital flight.

4. The issue of money laundering and how to deal with corruption generally is certainly more difficult to describe. It is one of the general problems of capital flight. Therefore, there is need for attitudinal change on the part of those who hold public office that have access to public funds. The relevant government arm should ensure proper sanctions and stiff penalties for public fund looters which is the only way to discourage this menace. Institutions charged with fighting corruption should be adequately strengthened and funded to carry out their duties effectively.

5. Political instability contributes negatively to economic growth and discourages domestic investment in Nigeria. Government should create enabling environment (through her actions, policies and utterances) to minimize heating up the political system in Nigeria. A favourable political climate breeds investors and encourages local investments.

Future Research

Numerous researchers have studied the impact of capital flight on the Nigerian economy. However, future researchers should look into the effect of capital flight on sectoral growth in Nigeria; such sectors as the industrial sector, financial sector, oil and gas sector etc. This will enable policy makers to adjust policies towards reducing the amount of capital flight from the Nigerian economy.

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