Capital Flight and the Growth of Nigerian Economy:
An Autoregressive Distributed Lag (ARDL) Modeling.

Egbuwalo Moses Orimolade & Abere Benjamin Olusola
Department of Economics
Bowen University,
P.M.B. 284,
Iwo, Osun State,
Nigeria.
aladegbuwalo@yahoo.com,benmarg5@gmail.com

Abstract
The paper investigates empirically the impact of capital flight on the growth of Nigerian economy. To achieve this task a model of GDP was specified explaining capital flight from Nigeria in line with the World Bank residual approach to the measurement of capital flight. The Autoregressive Distributed Lag approach top cointegration was used to analyse both short and long run relationship between variables. Research findings reveal that there is Long run negative relationship between GDP and all the capital flight variables in this study. We therefore recommend a favourable economic policy to take care of inflation, poor and inadequate infrastructural facilities high rate of taxation, poor treatment of domestic capital ad helpless domestic market situations, among others so as to discourage capital flight from Nigerian economy.

Introduction

The devastating consequences of capital flight on the economy of the country from where it takes its flight have attracted the concern and attention of scholars in Sub-Saharan African (SSA) countries and Nigeria in particular. Ojo (1992) made a huge cumulative estimate of capital flight from Nigeria to be US$35.9 Billion between 1975 and 1991 alone. Undoubtedly, this had denied Nigeria the opportunity of utilizing such amount of money for developmental purposes.

The term capital flight suggests a hasty cross-border movement of capital from one country to another. It is a kind of illicit movement of financial assets (capital) from one country to another. Some scholars like Nyong (2003), Ayodele (2014) label these capital movements as "flight" while others label them as "foreign investment". Bakare (2011) argued that it is unnecessarily pejorative to label capital movement form Nigeria, for instance, as flight while terming such movements from, say the United States of America (USA) to other countries as foreign investment. He further posited that much of the capital that exited did so with either government approval or acquiescence from the country of origin, thereby rendering untenable an attempt to label these financial flows as "capital flight" on the basis of their illegality. It is however, the contention of the present authors that the illegality involved in the cross-border movement of such capital qualifies it to carry the tag "flight".

In the words of Kindleberger (1987) capital flight is an illegal movement of capital from one country to another. Indeed, it is an abnormal flow of capital as it is not sanctioned by the government of the country of origin. This is because the exchange of capital controls imposed by the particular country is not adhered to. Less developed countries (LDCs),

Nigeria inclusive, are generally capital-scarce; it is, therefore a paradoxical phenomenon that capital from such countries exit into developed countries that are capital-surplus. It is in less developed countries (LDCs) that capital is most needed for investment, providing employment opportunities, addressing infrastructural deficits, insecurity challenges, providing enabling environment for businesses to thrive, improving the socio-economic conditions of domestic residents and drive development generally, to mention but a few.

Various factors have been identified as being responsible for capital flight in Nigeria. Ajayi (2005) identified a number of factors that drive capital flight to include varying risk perception, exchange rate misalignment, financial sector constraints and repression, weak institutions, macroeconomic distortions, corruption, unbridled/extraordinary access to government funds, among others.

The main objective of this study is to empirically evaluate the relationship, if any, between capital flight and economic growth in Nigeria during the period covered by this study (1970 -2016), while the specific objectives are to:

- Analyze the factors that are responsible for capital flight in Nigeria,
- Examine the channels or conduits through which capital flight takes place,
- Identify the major consequences of capital flight on Nigerian economy, and
- Analyze the policy implications of capital outflows from Nigeria.

The rest of the paper is structured as follows: section 2.0 is the review of literatures while section 3.0 addresses the methodology. Section 4.0 is data analysis and interpretation of results while section 5.0 is the conclusion and recommendations.

Literature Review
Conceptual Clarifications

Divergent views have been express about capital flight in the literature. As a result of this, there is the need to make more clarifications of the concept.

Capital Flight: Capital flight is devoid of a precise and universally accepted definition partly because of the way the term is used between developed and developing countries. It is usual, among some economists, to refer to capital outflows from developed countries as foreign investment while the same activity when undertaken by the residents of a developing country is referred to as capital flight (Lessard and Williamson, 1987). The outflow of capital becomes capital flight when the gross domestic product (GDP) of the country of origin increases at a lower rate than capital outflow. Corroborating this, Ajayi (2000) stressed further that capital shift out of developed countries is regarded as capital outflows, because the investors from developed countries are responding to investment opportunities while those from developing countries are said to be escaping from huge risk perceived at home, hence, regarded as capital flight from Nigeria.

Ndikumana and Boyce (2002) defined capital flight as residents' capital outflow, excluding recorded investment abroad. Boyce and Zarsky (1988) conceptualized capital flight as the movement of private capital from one jurisdiction to another in order to reduce the actual or potential level of social control over capital. Dooley (1986) defined capital flight as capital outflows motivated by the desire of residents to obtain financial assets and earnings on those assets which remain outside the control of domestic authorities. World Bank (1985) defined capital flight as the "sum of gross capital inflows and the current account deficit, less increases in foreign reserves". Capital inflows are defined as the sum of net foreign direct investment and the changes in gross public and private debt. This suggests that any inflow

that does not finance the current account deficits add to reserves flees the country in the form of capital flight.

Chipalkatti and Rishi (2001) interpret capital flight as consisting of private capital outflows of any kind that result in the acquisition of foreign assets by the resident of a country. This definition of capital flight is based on the motivations of the holders of capital and does not distinguish between normal and abnormal capital outflows. Instead, it rests on the assumption that an individual's control over capital is not complete, but subject to complete and alterable social control. This is similar to the view expressed by Boyce and Zarsky (1988).

In the Morgan Guaranty Trust Company (1986) capital flight was taken as "the reported and unreported acquisition of foreign assets by the non-bank private sector and elements of the public sector".

At the broad extreme, capital flight has been defined to include all private capital outflows from developing countries (Kahn and Hague, 1987) while at the narrow extreme, it includes only illegal capital exports (Lessard and Williamson, 1987). The broad perspective takes into consideration all private capital outflows from developing countries, be they short-term or long-term, portfolio or equity investments could be termed capital flight. This is because developing countries are generally considered to be in capital deficit and should therefore be net borrowers in the development process, supplementing domestic savings with external finance.

Kindleberger (1987) and Walter (1987), defined capital flight as all capital that "flees" irrespective of the motive. Capital flight can, alternatively be considered as the change in the private sectors net foreign assets (World Bank, 1985, Erbe, 1985; Morgan Trust, 1986; Nyomi, 2000; Nyong, 2003).

The definition of capital flight lacks consensus. This arises from the difficulties involved in distinguishing between those flows that can be considered "normal" and those that fall into the category of "capital flight". According to Dooley (1988), normal capital outflows are defined as the legal capital outflows, while capital outflows based on the desire to place assets beyond the control of domestic authorities are labelled capital flight. Ojo (1992) and Forgha (2008) argued that separating capital flight from normal portfolio diversification and trade transactions is fraught with challenges and could involve some elements of value judgment which explains, in part, the variations in the definitions of capital flight.

Major Causes of Capital Flight in Nigeria

The causes of capital flight as discussed in the literature are many. This paper does not claim to have an exhaustive list of the causes as only some of them will be mentioned and explained here as follows:

(i) **Financial Sector Constraints:** It is well known that narrowness is a feature of the financial markets of developing countries, Nigeria inclusive. These markets therefore provide only a limited variety of financial instruments in which wealth can be held. There is also in many developing countries the lack of full or credible deposit insurance on assets that are held in the domestic banking sector. These constitute constraints in the Nigerian financial sector which are capable of propelling capital flight from Nigeria to other countries where the financial sectors of the foreign economies are more liberal and more investment-friendly.

(ii) **Exchange Rate Misalignment:** Exchange rate misalignment or exchange rate volatility has encouraged the development of parallel market premium in the foreign exchange market which usually exposes the wealth holders to capital losses should devaluation or depreciation occurs. Fiscal deficit and macroeconomic distortions in the economy encourage capital flight because of their attendant effects on the instability of exchange rate which they engender (Ayodele, 2014).

(iii) **Political Crisis:** Nigeria is a country that is reputed for political crisis any time elections are conducted. It had always been a matter of "do or die" to get to one political post or the other. Extra judicial killings are rampant in Nigeria before, during and after elections to the extent that the political atmosphere is tense and unwholesome. This brings about insecurity of lives and properties and sending wrong signals to the outside world. This has the implication of propelling domestic wealth holders and investors to transfer their capital from Nigeria to the outside world. By 2019 Nigeria will be holding another round of nationwide elections. Only God knows the number of lives and the amount of properties that would be lost in the process. This is not good for the development of any nation. This further propels capital flight.

(iv) **Insecurity:** Security is an essential ingredient of economic growth in any nation. Without security no meaningful economic activity can take place. Unfortunately, insecurity has become pervasive in Nigeria for some time now. A lot of havoc has been done to Nigerian economy as a result of insecurity which manifests itself in form of Boko Haram Insurgency, Kidnapping, Rape, Niger Delta militants and the menace of the Independent People of Biafra (IPOB), Fulani Herdsmen, to mention but a few. No entrepreneur would want to invest his or her money in a country where insecurity is the order of the day. This kind of scenario serves as impetus for capital flight from Nigeria.

(v) **Risk Perception of Investors:** In the theory of portfolio selection, an investor chooses where to hold his/her wealth, either at home or abroad, depending on his/her perception of the risk and returns trade-off and other considerations within the economy. A rational investor will usually invest where he/she can get a higher return from his/her investment. The Nigerian environment does not offer this kind of opportunity to investors; hence they invest their capital in foreign lands.

(vi) **Corrupt Practices of Political Leaders:** Most political leaders in Nigeria are very corrupt and have unbridled/extraordinary access to government funds. Such access to government funds has given them the opportunity to engage in unwholesome transfer of funds from Nigeria to foreign countries so as to escape sanction and/or seizures by government if detected. Baker (1999) established a strong link between capital flight and political corruption as he divided capital flight into two- legal and illegal. The legal aspect of capital flight covers the movement of capital out of the country which involves the proper transfer of the after-tax profit. This is documented as it passes through the border and remains in the book of entry from which it is transferred. On the other hand, the illegal component is tax-evading and therefore, illegal for the country from which it originates and therefore disappears. All stolen monies by Nigerians fall into this

latter category. This is nothing but capital flight which has drastically reduced the funds for domestic investment.

(vii) **Poor Infrastructural Facilities:** It requires very little or no efforts to know that Nigeria is suffering from critical infrastructural deficit. This has impeded the rapid development of the country and its transformation into an industrial empire. Nigerian roads are in deplorable conditions, the education and health care systems are yearning for attention and the electricity supply is in a pitiable condition while the supply of pipe borne water has become a luxury. A few years ago, a tyre manufacturing company-Dunlop Nigeria Plc left Nigeria for Ghana due to incessant epileptic power supply. What the Nigerian economy has lost as a result of this in terms of its multiplier effects are better imagined than calculated.

(viii) **Financial Globalization:** Financial globalization, which enables capital to move freely from one country to another, has exacerbated capital flight from Nigeria to other parts of the world. In portfolio investment theory, capital seeks the best avenue where it can earn the highest returns, given a minimal level of risks. Since the domestic environment is full of risks for investors, rational owners of capital would seek offshore environments which they consider safe for their investments; hence the flight of capital from Nigeria to other parts of the world.

(ix) **Financial Revolving Door:** Boyce (1992) investigated the linkage between external debt and capital flight for the Philippine economy for the period 1971-1997. He found a two-way flows of capital into and out of the Philippines through a "financial revolving door". The phenomenon refers to a bi-directional flows of capital i.e. where capital enters the country in the guise of external borrowing and simultaneously flies out of the country as private capital flight. This phenomenon is also known as "debt-driven capital flight thesis" or "debt-flight revolving door". This phenomenon is both a cause of and a conduit for capital flight, to which Nigeria is no exception.

(x) **Macroeconomic Instability:** Macroeconomic factors like inflation, economic growth, fiscal balance, current account position and exchange rate movements can influence the nature and the extent of capital flight. For instance, high inflation rates can make domestic asset holders react to the erosion of the real value of their assets by moving their assets abroad, thereby reducing the capital that is available for domestic investment (Nyoni, 2000; Ndikumana and Boyce, 2002).

(xi) **Budget Deficit:** Budget Deficit which reflects the extent of government public sector borrowing requirement may also encourage capital flight. Increased budget deficit raises expectations of domestic economic agents regarding future tax increases to meet the government debt repayment obligations, thereby resulting in capital flight. Empirical evidence on the effect of fiscal balance on capital flight from Africa produced mixed results. For instance, Ndikumana and Boyce (2002) found a negative and statistically significant relationship between budget surplus and capital flight in cross-sectional regression but a positive and statistically significant relationship in panel data regression.

(xii) **Declining Terms of Trade:** Declining terms of trade can lead to a contraction in economic activities in a country whose terms of trade have declined. This can

occur when there is a reduction in investment, exchange rate over-valuation which creates the fear of devaluation of currency in the minds of people in the country experiencing declining terms of trade. As a result, there is macroeconomic disequilibrium which manifests itself in balance of payments problems, fiscal deficit, and decline in investment. This kind of scenario forces the government to change its programmes since declining terms of trade leads to a fall in government revenue which does not allow the government to meet its obligations to the people without increases in taxes. As a result, investors anticipate higher taxes and therefore divert their investments abroad (Nyong, 2002).

(xiii) **Rising Foreign Real Interest Rates:** An upward movement in the foreign real interest rates facilitates capital flight by changing the relative returns on investment, as foreign real interest rate rises, and public sector foreign liabilities increase. Similarly, private sector liabilities increase as national output falls. Majority of the residents who expect increase in taxes divert their investment abroad (Ajayi, 1995). In addition, in some of these countries, secret bank accounts are permitted. People from developing countries put their money there, where it is considered safe since their government cannot have access to the accounts held abroad.

Conduits / Channels of Capital Flight in Nigeria

Capital flight from Nigeria to other countries takes place through very many channels but only a few of them will be mention in this paper.

One of the channels or conduits through which capital escapes from Nigeria is through commissions and agents fees which are paid by foreign contractors into the foreign bank accounts of Nigerian residents.

Another method of transferring money abroad is through the black market. This used to be a thriving channel of transferring funds abroad until it was effectively controlled in recent times (Ajayi, 1995).

Also, capital flight can take place through cash or monetary instruments. This could be in the form of either foreign or domestic currency, traveler's cheques or other cheques.

Capital flight can also take place through bank transfers from a local affiliate of a foreign institution to a designated recipient abroad. This is possible at the market rate where constraints or restrictions are absent. Transfers can still take place in the face of exchange controls but possibly at a less favourable rate. Ajayi (1995) opined that the history of the development of banking institutions in Nigeria shows the existence of local affiliates of foreign banks.

Capital flight from Nigeria can also take place through cash or monetary instruments. These are usually in the form of either foreign or domestic currency, travelers' cheques or other cheques. In the early 1 970s, the Nigerian currency was carried out of the country and exchanged legally for the Pound Sterling in London and exchanged for the U.S. Dollars and other currencies in New York. But in recent times, particularly since 2015, the Naira has been prostrating to the U.S. $ and other strong currencies in the world.

Another channel through which capital escapes from Nigeria is through precious metals and collectibles, including works of art. Local currency is convertible into gold, silver or other precious metals, jewelry, precious stones and other similar assets that cannot only be taken abroad but that will also be able to retain their value for a fairly long time. These materials usually command high value in foreign currency. Such international transfers

usually involve smuggling because government tends to restrict or prohibit the importation or exportation of such items.

Another conduit or mechanism of transfer is through false invoicing of trade transactions, where export or import invoices are either issued at a price that is either different from agreed prices or faked. The expectation in the case of capital flight is that exporters will systematically engage in under-invoicing while importers over-invoice and in the process derive foreign exchange that is outside the control of the foreign exchange authorities. According to Ajayi (1995) the procedure for doing this is that the foreign supplier issues an invoice that is greater than the agreed price of the product. The importer on receipt of the necessary foreign exchange remits it to the foreign supplier who then keeps the difference in a bank account for the use of the importer. On the export side, the invoice issued is for an amount in foreign currency that is less than the agreed price of the product.

Trade misinvoicing may be utilized as a mechanism for capital flight. According to Chipalkatti and Rishi (2001) residents of a country can acquire foreign assets by over-invoicing imports and under-invoicing exports. Domestic prices may however, encourage misinvoicing in the reverse: imports may be under invoiced for the purpose of tariff evasion and export promotion schemes may generate an incentive for export over-invoicing. Such reverse misinvoicing results in an understatement of the current account deficit and consequently leads to an overstatement of the residually derived capital flight estimates. As a result of these contradicting effects, the net effect of trade misinvoicing upon capital flight estimates can go in either direction. Hence, a "net misinvoicing adjustment" applied to the basic residual in the balance of payments account will provide more accurate estimates of capital flight.

Consequences of Capital Flight on the Nigerian Economy
The consequences of capital flight on the Nigerian economy are numerous to such a level that a paper of this nature may not be able to capture all of them. However, the most salient ones that cannot be ignored are highlighted in this paper.

Capital flight constitutes a drain on the resources of the country that is available for domestic investment. A loss in investment translates into a loss in economic growth and development in the country.

Besides, capital flight tends to restrict the capacity and ability of the affected countries like Nigeria, to mobilize domestic resources and access foreign capital necessary to finance economic growth and development and thereby alleviate poverty in the land (Ayodele, 2014).

Deppler and Williamson (1987), Mohamed and Finnoff (2004) stated that capital flight has the potential of giving rise to a net loss in the total resources available for domestic savings and investments in any economy. Since domestic savings and investments are very important in the growth and development process, an economy experiencing huge capital flight is retarded.

Capital flight induces liquidity crunch in an economy. This can lead to depreciation of domestic currency in a floating exchange rate system. If a country is making efforts to protect its exchange rate by stabilizing it, a loss in its foreign exchange reserves will occur.

As if the foregoing negative consequences of capital flight are not enough, the government of the affected country loses revenue that should accrue to it in form of domestic tax revenue since income and wealth outside the domestic economy cannot be taxed by the home government. As a result. The debt servicing capacity of such a country is constrained as capital flight erodes it foreign exchange base.

Capital flight depletes available savings for domestic investment. It a well-known fact that savings, investment and economic growth are closely linked. An unsatisfactory

performance of one affects the other and often leads to stagnated growth that affects the viability of the Balance of Payments (Chete, 1991; Adetiloye, 2012).

Methodology
Theoretical Framework

In the theory of international trade, there are three basic approaches to the measurement of Capital Flight. The balance of payment approach, the residual approach and the bank Deposit approach. The balance of payment approach measures capital as the sum of the recorded short-term capital outflows and unrecorded net flows or net errors and omissions. In the residual approach, capital flight is calculated as the difference between sources and uses of capital inflows. The sources of capital inflows are increase in external debt and foreign direct investment. These capital inflows are used to finance either current account Deficits or increase in official reserves (World Bank (1985) and Erbe (1985), Gupta et al 2007). For the purpose of this study we adopt the Residual approach to capital flight. This is because it encompasses Macroeconomic variables that determine the economic growth of Nigeria.

Model Specifications

Based on the theoretical literature reviewed above, we adopt the Residual approach to capital flight with some modifications. The model for this study is specified functionally as follows:

$$GDP = f(DfI, EXDEBT, CAB, \delta RES, TOT, \mu) \ldots \ldots \ldots \ldots \ldots 3.1$$

Where GDP = Gross Domestic Product, EXD = External Debt, DFI = Direct Foreign Investment, RES = External Reserves, CAB = Current Account Balance, f = functional notation, TOT = Terms of Trade, μ = error term.

In econometrics form, the capital flight equation is given as:

$$\Delta LGDP = \beta_o + \beta_1 \Delta LDf_1 + \beta_2 \Delta \delta EXDEBT + \beta_3 \Delta LCAB + \beta_4 \Delta L\delta RES + \beta_5 \Delta LTOT + \mu_1 \ldots 3.2$$

Estimating Technique and Data

Given that this paper examines the Long run relationship between Capital flight and the growth of the Nigerian economy. Autoregressive Distributed lag approach to Cointegration analysis is used in this study. Having tested the unit root, the Wald test for cointegration was carried out together with short run and long run Error correction representation of the model. The data used in this study are obtained from the data base of the Central Bank of Nigeria (CBN). All series are annually and the sample extend from 1970-2016. Accordingly, the empirical measurement covers the sample period 1970-2016.

Results and Discussions
Analysis of Unit Root Results

The unit root test result as indicated in Tables 1 and 2 in the appendix section is designed to ascertain the order of integration of the variables. From table 1, the Augmented Dickey Fuller (ADF) regression includes an intercept and a linear trend. The ADF result reveals that all the variables were not integrated of the same order. This was because Gross Domestic Product, External Debt, External reserves, Current Account Balances and Terms of Trade were integrated of order 1 i.e I(1) while Foreign Direct Investment was integrated of order 0 i.e. I(0). From table 2, the Phillip Perron (PP) regression also includes an intercept and a linear trend. The PP results also reveals that all the variables were not integrated of the same order. This was because FDI, EXD, RES, CAB and TOT are integrated of order 0, i.e. I(0) while GDP was integrated of order 1, i.e. I(1). Since the condition for Johansen

cointegration was not met, we proceed to the Autoregressive Distributed Lags approach to cointegration.

ARDL (Autoregressive Distributed Lag) Analysis
Lag Length Selection Criteria

ARDL approach to cointegration is used when all the variables in the model are not integrated of the same order as in the tables 4.1 and 4.2 in the appendix. The first step is to determine the lag length of the model. This is done by selection the lag length that yields the minimum value in Table 4.3. The result therefore suggest a maximum of four lag for the model in this study.

Wald Test Analysis or Cointegration Test for the Model

The rule is that if the Computed F. statistics falls below the lower bound value, the Null hypothesis (no cointegration) cannot be rejected. Contrarily, if the Computed F. Statistics exceed the upper bound value; then it can be concluded flight and the Nigerian economic growth. From tables 4.4 and 4.5 since the Calculated F-Statistics of 33.2906 is higher than the upper bound critical value of 3.04 at 5% error level we conclude that there is an evidence of long run relationships between economic growth and Capital Flight variables in Nigeria.

ARDL Long and Short-Run Analysis of the Model

Extracting from table 4.6 in the appendix, the estimated long run model of the corresponding ARDL is given as:

$$LRGDP = -1.81LRFDI_{t-4} - 1.92LREXD - 3.47RES_{t-4} - 3.31LRCAB_{t-4} - LRTOT_{t-4} \ldots \ 4.1$$

The result of the long run analysis of the model therefore reveals that a 1% increase in Foreign Direct investment leads to a Decrease of 181% in the Gross Domestic Product, a 1% increase in external debt leads to a decrease of 192% in the GDP. It also reveals that a 1% increase in external reserves leads to a decrease of 347% in GDP, a 1% increase in Current account balance leads to a decrease of 416% in GDP. An increase of 1% in Terms of trade leads to a decrease of 331% in GDP.

The result of the short run analysis of the model from table 4.7 reveals the value of the ECM coefficient which is of most importance in the table. The ECM coefficient is -0.260290 which indicates that approximately 26% of the previous year's disequilibrium in Gross Domestic Product. In the model, the negative value of the ECM coefficient (-0.260290) confirms that there is a disequilibrium in the short run which the set of variables in the model is trying to correct in the long run. Though the adjustment speed is very slow, the result confirms the existence of a long run equilibrium relationship in the research model as indicated in the Wald test.

Conclusion and Recommendations

One interesting findings in this study is that from our long run analysis all the Capital flight variables have a negative long run relationship with GDP. This suggest that Capital Flight is harmful for long run economic growth. Since this is true it worth fighting against this phenomenon. Not only is Nigeria loosing substantial amount of funds that could be otherwise used for development and further stabilization, Capital flight also retards long term economic growth. For a flight relief or even reversal of Capital flight to occur, steps should be taken to avoid the causes of Capital flight, which includes favourable economic policies, ensuring political stability and institutional developments.

Moreover, other key issues that should be taken care of include stabilization of inflation rate, provision of standard and adequate infrastructural facilities, transparent taxation,

treatment of domestic Capital in the same way as foreign capital, supporting domestic market, and also the stabilization of government expenditures.

References

Ajayi, L.B. (2012) "Capital Flight and Nigerian Economic Growth". *Assian Journal of Finance and Accounting, Vol. No PP45-65 .*

Ajayi, S.I. (1995) "Capital Flight and External Debt in Nigeria". *African economic Research consortium, research Paper 35, Nairobi, October.*

Ajayi, S.I. (2000) "External Debt and Capital Flight in Sub-Saharan Africa". *International Monetary Fund*, Publication.

Ajayi, S.I. (2005) "Managing Capital flight: Issues and challenges". A Paper presented at a Seminar titled: Capital Flows and Economic Transformation in Nigeria, at the Central Bank of Nigeria (CBN's) 5th Annual Monetary Policy Conference. CBN Conference Hall, Abuja, November 10-11.

Ajilore, O.T. (2010) "An Econometric Analysis of Capital Flight from Nigeria". *International Journal of Economics and Finance, 2(4)*

Adetiloye, K.A. (2012) "Capital Flight Versus Domestic Investment in Developing Countries: An Empirical Analysis from Nigeria". *International Journal of Economics And Finance. Vol. 4, No. 2: February 2012, pp 175-186.*

Ayodele, T.D. (2014) "Capital Flight and the Nigerian Economy: An Empirical Reassessment'. *Information and Knowledge Management, Vol. 4, No.4: pp 7-13*

Bakare, A.S. (2011) "The Determinants and Roles of Capital Flight in the Growth Process of Nigerian Economy: Vector Autoregressive Model Approach". *British Journal of Management and Economics, Vol. 1, No 2: pp 100-113.*

Baker, R.W. (1999) "The Biggest Loopholes in the Free Market System". *The Washington Quarterly.*

Boyce, J.K. and L. Zarsky (1988) "Capital Flight from the Philippines: 1962-68". *Journal of Philippine Development, 27, pp. 191 – 192.*

Boyce, J. (1992) "The Revolving Door External Debt and Capital Flight: A Philippines Case Study'. *World Development, 20(3), pp. 335 -349.*

Chete, Louis (1999) "Macroeconomic determinants of Private Saving in Nigeria". *Monograph Series No 7. NISER, Ibadan.*

Chipalkatti, N. and M. Rishi (2001) "External Debt and Capital Flight in the Indian Economy". *Oxford Development Studies, Vol. 29, No. 1, pp. 31 – 44.*

Cooper, H.W. and J.P. Hardt (2000) "Russian Capital Flight, Economic Reforms, and the United States". Updated July 10, 2017.

Central Bank of Nigeria (2012) "Capital Flight and the Nigeria Economic System", CBN, Abuja.

Dooley, M.P. (1986) "Country-Specific risk Premiums, Capital Flight and Net investment Income Payments in Selected Developing Countries. *International Monetary Fund Unpublished Monograph, March.*

Dooley, M.P. (1988) "Capital flight: A Response to different Financial Risks". *International Monetary Fund Staff Papers; 35(3): 422 – 36.*

Deppler, M. and M. Williamson (1987) "Capital Flight: Concept, Measurement and Issues". In Staff Studies for the World Economic Outlook IMF, Washington D.C. Erbe, S. (1985) "The Flight of Capital from Developing countries". *Intereconomics, 20(4): 268 – 75.*

Forgha, Njimanted (2008) "Capital Flight, Measurability and Economic Growth in Cameroun: An Economic Investigation". *International review of Business Research Paper, 4: pp 74 – 90.*

Gupta, S.C., C. Pattulo and S. Wagh (2007) "Impact of Remittances on Poverty and Financial development in Sub-Saharan African countries". *IMF Working Paper 07/38.*

Khan, M.S. and U.N. Hague (1987) "Foreign Borrowing and Capital Flight: A Formal Analysis". *IMF Staff paper 32(4): 606 – 28.*

Kindleberger, C.P. (1987) "Capital Flight and Third World Debts: A Historical Perspective" in D.R. Lessard and Williamson (eds.). *Institute for International Economics, Waashington D.C.*

Mohamed, S. and K. Finnoff (2004) "Capital Flight from South-Africa (1980-2000). TIPS/DPRU/Cornell University forum 2004. African development and Poverty reduction: The Macro-Micro Linkage.

Morgan Guaranty Trust Company (1986) "Less developed Countries Capital Flight". *World Financial Markets, 2: 136.*

Ndikumana, L. and J.K. Boyce (2002) "Public Debts and Private Assets; Explaining Capital Flight from Sub-Saharan African Countries". *PERI Working Paper 32.*

Nyong, M.O. (2013) "Capital Flight and Economic Growth in Four African Countries: Nigeria, Cote D'voire, Morroco and Ghana".

Nyomi, T. (2000) "Capital flight from Tanzania" In S.I. Ajayi and S.K. Mohsin (Ed.) External Debt and Capital Flight in Sub-Saharan Africa. *IMF Paper.*

Ojo, O.O. (1992) "An Empirical Investigation of Capital Flight in Selected African Countries. *African Development Bank Economic Research Paper, No 17.*

Umoru, D. (2013) "Capital flight and the Nigerian Economy". *European Journal of Business and Management, Vol. 5, No. 4.*

Walter, I. (1987) "The Mechanisms of Capital Flight" In D.R. Lessard and Wiliamson (eds.) Capital Flight and Third World Debt. Washington D.C. *Institute of International Economics.*

World Bank (1985) "Capital Flight and the Third World Debt. *Institute os International Economics. Washington D.C.*

APPENDIX
Table: 4.1 Unit Root Test Using Augmented Dickey Fuller ADF Test

Variables	LEVEL			FIRST DIFFERENCE			Decision
	Intercept	Intercept & Trend	None	Intercept	Intercept & Trend	None	
GDP	3.991704	-0.511903	2.746070	-4.885910	-6.364688	-4.4 25120	
Critical Values 1% 5% 10%	-3.584743 -2.928142 -2.602225	-4.175640 -3.513075 -3.186854	-2.617364 -1.948313 -1.612229	-3.588509 -2.929734 -2.603064	-4.219126 -3.533083 -3.198312	-2.618579 -1.948495 -1.612135	I(1)
FDI	-6.763000	-7.247732	-6.797701	-8.215005	-8.134153	-8.309555	
Critical Values 1% 5% 10%	-3.584743 -2.928142 -2.602225	-4.175640 -3.513075 -3.186854	-2.617364 -1.948313 -1.612229	-3.592462 -2.931404 -2.603944	-4.186481 -3.518090 -3.189732	-2.619851 -1.948686 -1.612036	I(0)
EXD	0.273609	-1.848460	1.489485	-6.149041	-6.257996	-5.715263	
Critical Values 1% 5% 10%	-3.584743 -2.928142 -2.602225	-4.175640 -3.513075 -3.186854	-2.617364 -1.948313 -1.612229	-3.588509 -2.929734 -2.603064	-4.180911 -3.515523 -3.188259	-2.618579 -1.948495 -1.612135	I(1)
RES	-1.118511	-1.370662	-0.659769	-5.101252	-5.069940	-5.160158	
Critical Values 1% 5% 10%	-3.584743 -2.928142 -2.602225	-4.175640 -3.513075 -3.186854	-2.617364 -1.948313 -1.612229	-3.588509 -2.929734 -2.603064	-4.180911 -3.515523 -3.188259	-2.618579 -1.948495 -1.612135	I(1)
CAB	-1.858119	-2.112518	-1.086858	-6.884585	-5.605338	-6.936391	
Critical Values 1% 5% 10%	-3.584743 -2.928142 -2.602225	-4.175640 -3.513075 -3.186854	-2.617364 -1.948313 -1.612229	-3.588509 -2.929734 -2.603064	-4.186481 -3.518090 -3.189732	-2.618579 -1.948495 -1.612135	I(1)
TOT	-3.880190	-3.871268	-2.399100	-5.402932	-5.443185	-5.479764	
Critical Values 1% 5% 10%	-3.588509 -2.929734 -2.603064	-4.180911 -3.515523 -3.188259	-2.618579 -1.948495 -1.612135	-3.605593 -2.936942 -2.606857	-4.205004 -3.526609 -3.194611	-2.624057 -1.949319 -1.611711	I(1)

Source; E-View Statistical software version 7

Table 4.2 Unit Root Test Using Phillip-Perron (PP) Test

Variables	LEVEL			FIRST DIFFERENCE			Decision
	Intercept	Intercept & Trend	None	Intercept	Intercept & Trend	None	
GDP	0.200751	-0.934877	1.935340	-4.851046	-4.911727	-4.394060	
Critical Values 1% 5% 10%	-3.584743 -2.928142 -2.602225	-4.175640 -3.513075 -3.186854	-2.617364 -1.948313 -1.612229	-3.588509 -2.929734 -2.603064	-4.180911 -3.515523 -3.188259	-2.618579 -1.948495 -1.612135	I(1)
FDI	-6.763000	-7.648723	-6.797701	-39.25039	-40.79309	-32.61524	
Critical Values 1% 5% 10%	-3.584743 -2.928142 -2.602225	-4.175640 -3.513075 -3.186854	-2.617364 -1.948313 -1.612229	-3.588509 -2.929734 -2.603064	-4.180911 -3.515523 -3.188259	-2.618579 -1.948495 -1.612135	I(0)
EXD	0.241027	-1.868582	1.342297	-6.147805	-6.257996	-5.780367	I(0)
Critical Values 1% 5% 10%	-3.584743 -2.928142 -2.602225	-4.175640 -3.513075 -3.186854	-2.617364 -1.948313 -1.612229	-3.588509 -2.929734 -2.603064	-4.180911 -3.515523 -3.188259	-2.618579 -1.948495 -1.612135	
RES	-1.416698	-1.529250	-0.905190	-5.097848	-5.073032	-5.159178	
Critical Values 1% 5% 10%	-3.584743 -2.928142 -2.602225	-4.175640 -3.513075 -3.186854	-2.617364 -1.948313 -1.612229	-3.588509 -2.929734 -2.603064	-4.180911 -3.515523 -3.188259	-2.618579 -1.948495 -1.612135	I(0)
CAB	-1.786154	-2.052649	-0.968858	-6.885804	-6.793967	-6.936391	
Critical Values 1% 5% 10%	-3.584743 -2.928142 -2.602225	-4.175640 -3.513075 -3.186854	-2.617364 -1.948313 -1.612229	-3.588509 -2.929734 -2.603064	-4.180911 -3.515523 -3.188259	-2.618579 -1.948495 -1.612135	I(0)
TOT	-3.242389	-3.809246	-2.232221	-15.44494	-22.22618	-15.75719	
Critical Values 1% 5% 10%	-3.588509 -2.929734 -2.603064	-4.180911 -3.515523 -3.188259	-2.618579 -1.948495 -1.612135	-3.592462 -2.931404 -2.603944	-4.186481 -3.518090 -3.189732	-2.619851 -1.948686 -1.612036	I(0)

Source; E-View Statistical software version 7

Table 4.3: Lag Length Selection Criteria for the Model

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-680.7344	NA	29003.26	30.14022	30.43881	30.24736
1	-397.7692	322.6625	11.25446	22.24458	24.63328	23.10162
2	-385.1396	64.77491	12.00351	22.05844	26.53726	23.66540
3	-132.0029	138.3759	0.215730	14.66680	21.23573	17.32367
4	36.20086	61.12994*	0.000214*	6.066623*	12.72567*	10.17342*
indicates lag order selected by the criterion (each test at 5% level) *FPE: Final prediction error;* *AIC: Akaike information criterion;* *SC: Schwartz information criterion;* *HQ: Hannan-Quinn information criterion*						

Source; E-View Statistical software version 7

Table 4.4: Critical Lower and Upper Bounds Values

	5%		1%	
	Lower	Upper	Lower	Upper
Restricted intercept no trend	1.98	3.04	2.41	3.61
Unrestricted intercept no trend	2.06	3.24	2.54	3.86

Source: Pesaran et al (2001), Table CI (iii) case II

Table 4.5: Wald Bound Test of Presence of Cointegration in ARDL for Model I

Equation: ARDL (4,4,4,4,4,4,4).			
Test Statistic	Value	Probability	Decision
F- Statistic	33.2906	0.0012	Cointegration
Chi-square	23.3813	0.0000	Cointegration

Source; E-View Statistical software version 7

Table 4.6: Estimated Long Run Multiplier Coefficients for the Model

Dependent Variable: LRGDP						
Variable	LFDI	LEXD	LRES	LCAB	LTOT	
Coefficient	-1.81	-1.92	-3.47	-4.16	-3.31	

Source; E-View Statistical software version 7

Table 4.7: Error Correction Representation of ARDL for the Model
Dependent Variable DGDP

Variable	Coefficient	Std.Error	t.statistics	Prob.
Constant	0.028801	0.051019	0.564507	0.5808
D(FDI(-1))	-0.000937	0.005918	-0.158324	0.8763
D(FDI(-2))	-0.004894	0.005596	-0.874608	0.3956
D(FDI(-3))	-0.006852	0.005656	-1.211471	0.2445
D(EXD(-4))	0.001646	0.007935	0.207405	0.8385
D(EXD(-1))	0.012619	0.008801	1.433850	0.1721
D(EXD(-2))	0.012201	0.009102	1.340476	0.2000
D(EXD(-3))	0.007301	0.008934	0.817251	0.4266
D(RES(-2))	-0.019631	0.075762	-0.259108	0.7991
D(RES(-3))	-0.006753	0.084052	-0.080346	0.9370
D(RES(-4))	0.058449	0.061518	0.950115	0.3571
D(CAB(-1))	-0.371446	0.175155	-2.120676	0.0510
D(CAB(-2))	-1.093477	0.461113	-2.371386	0.0315
D(CAB(-3))	3.735796	0.487212	7.667703	0.0000
D(CAB(-4))	-0.013667	0.166796	-0.081941	0.9358
D(TOT(-1))	0.609461	0.140151	4.348598	0.0006
D(TOT(-2))	1.133171	0.402067	2.818364	0.0130
D(TOT(-3))	-4.019740	0.454776	-8.838941	0.0000
D(TOT(-4))	-0.167420	0.194988	-0.858620	0.4041
ECMA(-1)	-0.260270	0.053952	-2.970598	0.0095***
S.E. of regression	1.366846		Akaike info criterion	58.91378505
Sum squared residual	6.307562		Schwarz criterion	59.0641665

Note: *** indicates significance at 5% level
Source; E-View Statistical software version 7.