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# Capital Flight and Economic Development: The Experience of Cameroon

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**Abstract:** The paper investigates the relationship between capital flight and economic development in the Cameroon economy during the period 1970-2013. Applying the Fully Modified Least Squares (FMOLS) technique, we found evidence in support of a negative significant relationship between capital flight and economic development in Cameroon over the period of the study. Other variables with significant negative impact on economic development are external debt and exports. On the other hand, a factor such as real interest rate was found to associate positively with economic development.

**Keywords:** FMOLS, Economic Development, Capital Flight, Cameroon

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## 1. Introduction

The phenomenon of Capital flight can be traced as far back as the 17<sup>th</sup> century in France where the outflow of capital to London was mainly in the form of jewellery, coin, wine and bill of exchange from catholic bankers, Swiss in Lyons, from government agents in Paris and foreign diplomatic representatives in France during the revocation of the Edict of Nantes in 1685 [1]. France also witnessed outflow of capital by the Noble Émigrés after the French revolution of 1789 to 1793. Between 1961 and 1963 Italy experienced massive flight of her banknotes that were being smuggled to Switzerland while Germany witnessed outflow of her capital during the hyperinflation period. Capital flight is seen as an indicator of bad economic policies, including mismanagement of interest and exchange rates, excessive tax burden, inflation, budget deficit and an excessive public sector borrowing requirement resulting to crowding out of the private sector.

The problem of capital flight in African economies deserves serious attention. First, it is seen as a diversion of scarce economic resources away from domestic investment and productive activities. This is evidenced as shown by [2] that in recent decades African economies have achieved significantly lower investment levels than other developing

countries. [3] estimate that if Africa were able to attract back the flight component of private wealth, domestic private capital stock would rise by about two-thirds, and that Africa's GDP per capita is 16% lower than it would be if the continent had been able to retain its private wealth at home. Secondly, capital flight has pronounced effects on the distribution of wealth which favours the rich at the detriment of the poor. [4] opined that individuals who engage in capital flight generally are members of the subcontinent's economic and political élites, who take advantage of their privileged positions to acquire and channel funds abroad. Both actions (acquiring and transferring of wealth) involve questionable practices, including the falsification of trade documents (trade misinvoicing), the embezzlement of export revenues, and kickbacks on public and private sector contracts. Lastly, is the fact that most sub-Saharan African countries continued to remain in severe external debt crisis. For instance, in 2000, debt service amounted to 3.8% of gross domestic product (GDP) for sub-Saharan Africa (SSA) as a whole. By comparison, SSA countries spent 2.4% of GDP on health in that year. Only 55% of the people in SSA have access to clean drinking water, while illiteracy rates and infant mortality rates in SSA are among the highest in the world [5]. However, the basic concern of most authorities regarding capital flight is that it reduces welfare in the economy since it results to a net loss in the total resources available in the

country hence hampering development [6].

Based on the Global Financial Integrity estimate of 2010 about \$1.8 trillion was recorded as illicit outflows from Africa between the periods 1970 - 2008. The transfer of funds from Sub Saharan Africa (SSA) started before the economic crises and since 2005, the rate of capital flight is alarming with about \$ 202.4 billion lost from 33 countries in SSA. About \$ 700 billion has been recorded as capital flight since 1970 to 2008 from 33 countries. Investing this amount at the on-going market interest rate abroad, a total of about \$ 944billion will be recorded as the total loss to these countries within this period. This amount is far greater than their outstanding debts which stand at \$177. This indicates that the world owed these countries more than what these countries owed the world to the tune of about \$767 billion. [7] further estimated that about \$193 billion was recorded as capital flight between 1970 and 2004 from 25 countries in SSA. Most of this amount recorded was from oil rich countries (Angola, Chad, Cameroon, Republic of Central Africa, Democratic Republic of Congo, Ivory Coast, Gabon, Nigeria and Sudan) in SSA who accounted for about 3/4 of these illegal transfers. Again, between 1970 and 2004 it was further estimated that about \$50 billion was recorded from 13 Franc Zone countries as illegal transfers. The increasing rate of capital flight in the CEMAC zone is as a result of the productive structure of the region (rich in oil and natural resources). To [8], [9] and [10], the abundance of natural resources plays a significant role in increasing the rate of capital flight because it provides many opportunities for individuals to prepare fake invoices. The high levels of capital flight poseserious challenges to resource mobilisation in support of growth and development in the region. This is worsening the economic situation considering the fact that the region is faced with acute shortage of capital [11].

Sub Saharan Africa's (SSA's) economic performance has been observed to be characterized by economic stagnation. This poor economic performance has caused the SSA economies to continuously suffer from BOP disequilibria, dwindling government finances, increasing macroeconomic and political instability and higher levels of poverty ([12]; [13]). [14] explained that increase in financial gap has caused most African especially SSA countries to resort to borrowing in order to finance their growth and development. The ensuing debt has become unsustainable as a result of the fact that these countries have relied heavily on foreign financing from both official and private sources to develop. [15] further found out that most of the funds borrowed to finance growth were being diverted to private assets abroad by top government officials in these countries. This is evident as we see that by 2010 in SSA, the external debt stock stood at about \$188.6 billion while net assets stood at about \$ 877.2 billion. This is bad for an economy since it needs to rely on external indebtedness to finance national development objectives. Hence the issue of capital flight is important because flight of capital is a lost opportunity for the money to work in the country's economy and also because of the importance of the tax base erosion and the income

redistribution problems, created by capital flight [15].The most common forms of capital flight include: false bottom suit cases stocked with cash or travellers checks (currency smuggling), inflating procurement contracts for goods and services (trade misinvoicing), kickbacks (bribes) to government officials, diversion of public funds and earnings from oil and mineral exports into the bank accounts of politically influential individuals, bank transfers and swap arrangements etc.

Cameroon like any other SSA country also faces the problem of capital flight which became prominent in the late 1980s after the oil boom period. [16] estimated that, close to 5,789 billion francs was recorded as outflow of funds between 1970 and 2008. This only helps to worsen the capital scarcity problem in the country and further restricts the capacity and ability of the country to mobilize domestic resources and access foreign capital necessary for growth and development. Capital is necessary in the process of development as it passes through investment in the economy to increase income and induce other investments. It is to be noted that the amount recorded as stock of capital flight from Cameroon (\$ 31.3 billion) is higher than the country's external debt which stood at \$3 billion in 2010. However, the government of Cameroon and other developing countries including some developed countries have adopted measures like , the Austerity Programmes (AP) of 1987; the Structural Adjustment Programmes (SAP) of 1988/1989; the Trade Liberalisation Programme (TLP) of 1990, the National Anti-Corruption Drive of 2006 and the Operation Declaration of Assets of 2006/2007, capital repatriation using debt equity swaps programme, the tax amnesty scheme and the closing of shadow banking system which allows each country to introduce capital controls amongst others . In spite of these measures, the trend of capital flight continued to increase as the ratio of capital flight to GDP in Cameroon in 2010 stood at 89%. With such figures recorded as outflows of capital when compared to the country's GDP, the idea of achieving a sustainable growth rate of 5 % annually by 2035 remains a castle in the sky since funds outside the country cannot be used to develop the country and these funds cannot be a source of revenue for the government since they cannot be taxed. This therefore implies that the depth and breadth of capital flight in Cameroon have not yet been diagnosed. As a result of all this, the rate of economic development in Cameroon is still very low. Against this background, this paper examines the relationship between capital flight and economic development in Cameroon.

So far relative studies of capital flight on its magnitudes, measurability and interrelationship with economic growth have being carried out. A review of these studies reveals that they draw their conclusions from Ordinary Least Square technique, error correction, correlation and even descriptive statistics among other methodologies. Among these studies are ([17], [7], [18], [19], [20], [21], [22], [23], [24], [25], and [26]). Very few works are being conducted in Cameroon, for example, [6] which did not include adjustments for capital flight like trade misinvoicing, exchange rate differentials and

inflation rate. The present study fills this gap by making such adjustments in capturing the impact of capital flight on economic development in Cameroon.

The rest of the paper is structured as follows: Section two reviews the theoretical and empirical literature. Section three discusses the method of analysis. The empirical results are discussed in section four. Section five concludes the paper with some policy implications.

## 2. Literature Review

### 2.1. Conceptual Issues

#### 2.1.1. The Concept of Capital Flight

In economic literature capital flight is generally portrayed as the illegal transfer of funds from less developed nations especially Africa to more advanced nation ([25]; [26] and [24]). [33] sees capital flight to be reported and unreported acquisition of foreign assets by the non-banking sector. Elsewhere [27] approximates capital flight to short-term private capital out flow triggered by either political crisis or failure of economic policy. More specifically, [25] holds that capital flight includes all forms of abnormal capital outflows either by private economic agents or public authorities from a less developed nation to an advanced nation with aim of concealing the movement of such funds. [6] sees capital flight to take the form of currency smuggling, over invoicing of imports and under invoicing of exports, electronic transfer of funds from the private banking sector, declaration of un-existing foreign debts, kickbacks in foreign contracts, oversees investments from drug trafficking, corruption, illicit activities related to tax evasion and exchange rate controls. However, in this work we consider capital flight to include both legal and illegal transfer of money that occurs when individuals keep capital abroad through the deliberate falsification of trade documents which could be under-invoicing exports and/or over invoicing imports.

Capital flight is measured in various ways. To the [28] and [29] capital flight includes current account balance, net foreign direct investment, Changes in debt, and changes in reserves. [33] includes to the list above bank system foreign assets. This measurement of capital flight takes into consideration the acquisition of foreign assets by the public and non-bank private sector. Instead of adding bank system foreign assets to the World Bank and Erbe's list of capital flight items, [30] includes errors and omissions in the balance of payments statistics, IMF credit, and Counterpart items. This measurement considers capital flight to be short-term speculative capital flows or external assets by non-bank private sector as well as errors and omissions in the balance of payments account. [24] considers this measure of capital flight as hot money which responds fast to changes in expected returns. Meanwhile [27] and [24] see capital flight to include net errors and omission and other assets/investment especially short-term private capital flows. Also, capital flight is seen by [15] to consist of the difference between changes in debt and foreign direct investment and

the sum of net current account balance and changes in reserves.

#### 2.1.2. Economic Development

The concept of economic development has undergone a lot of transformation. In the past economic development was associated with economic growth, but today, the concept has been defined in various ways by researchers. According to [32] economic development is a process whereby real national income of a country is on the increase over a given period of time. Process here includes transformation of the country by changing the production function and transferring resources from one sector to another (i.e from agricultural sector to industrial sector). This growth is accompanied by structural changes such as the countries social structure, political structure, educational and other positive forms of social welfare changes. However, due to the disappointment over the lack of wide spread social economic advantages associated with the citizens of a country even when a country is witnessing economic growth the above definitions have been seriously criticised. As a result of this, this study is going to consider economic development from the basic human needs approach which looks at it as progress towards reducing the incidence of poverty, unemployment and income inequality. This does not indicate any increase in GDP or GNP but a rise in the general standard of living of the citizens.

### 2.2. Empirical Literature

Capital formation is a prerequisite for development. However, in the third world countries the inadequacies of financial system, instability of the political economy often prevent the accumulation of financial resources as a result of investors investing in other countries (capital flight). This in turn reduces the accumulated capital and thus development. [24] carried out an econometric investigation of the determinants of capital flight in Nigeria. With the help of the Ordinary Least Square technique and the Error Correction Model, he observes that exchange rate depreciation significantly increases capital flight in Nigeria. His study also proves the validity of the portfolio theory which explains how risk-adverse investors can build portfolio in order to maximise returns given a level of market risk.

Paradoxically, the inflow of official capital through debt and aid to SSA has been in close occurrence with a substantial out flow of domestic private capital. In considering the situation of other developing regions, it is observed that SSA has the highest incidence of capital flight relative to both GDP and overall private wealth; close to 40 percent of all private portfolio are held outside the region ([3]; [34]).

As concerns determinants of capital flight, a large body of research work has identified macro-economic and political conditions as the main determinant of capital flight in Africa. This can be seen in the studies of [35], [3], [36], and [37]. While these contributions throw light on this phenomenon, they fail to consider non-traditional determinants such as

governance and structural features of African countries.

[38] in his study of capital flight and economic performance of the Philippines, points that capital flight aggravates resources constraints and weakens long-term economic growth and also that sustained capital flight for over three decades implies that the Philippines economy would be repositioned to lose the opportunity to achieve economic takeoff. This is really devastating and necessitates positive action to address the issue of capital flight.

[39] examines the effect of the determinants of capital flight on the Nigerian economic growth over the period 1985 to 2010. In this study, the growth indicator used was Gross domestic Product (GDP) while the variable used as determinants of capital flight were foreign direct investment, inflation rate, exchange rate and fiscal deficit. Employing the ordinary least square technique as a method of data analysis, he found that in the short-run capital flight is mostly caused by inflation while the long-run result showed that both inflation and exchange rates significantly determine capital flight which in turn adversely influences economic growth.

[40] examines the determinants of capital flight and capital movement through trade mispricing in African countries, where he attempts to accomplish two things. Firstly, to identify the determinants of capital flight and capital movements through trade misinvoicing from selected African countries in order to ascertain whether the same factors could explain both types of capital movements. Secondly, it attempts to determine whether Granger causation exists between capital movement through trade misinvoicing and capital flight. Using data for selected countries which were shared into geographical, economic, and monetary regions and 21 explanatory variables, the results showed that variables that explain capital flight do not always explain capital movement and vice versa. The independent variables tended to explain the dependent variables in a few cases, implying that the reason for capital flight and capital movement was other than for investment purposes. Overall causality was found to exist between the dependent variables, mostly in the form of feedback. Yet, the relationship was mostly transitory with a long-term relationship existing in only few cases.

[41] investigated the causes of capital flight from Sub-Saharan Africa. Their study based on insights from portfolio theory, presents empirical evidence that links capital flight to the domestic investment climate. Using a panel data set for 37 African countries over the 1980-2005 period, the study discovered that once account is taken of the region's structural and institutional features, private capital outflows from Africa are explained by policy distortions along with the relative riskiness and poor portability of investments. In addition, the study discovered evidence that the type and composition of resource flows to the region are important for capital flight: foreign aid generally discourages capital flight while short term borrowing and FDI contribute to it. The findings of the study are robust to endogeneity, outliers, subsamples, and to different econometric methods.

In the literature review, care has been taken to critically

examine the determinants of capital flight in developing nations including Cameroon. The inadequacies/ shortcomings observed in empirical studies on capital flight from Africa may not be connected to the use of estimated statistics of capital flight as a dependent variable. Attempts to empirically determine the factors that affect an estimated statistic on capital flight is suspect and is bound to produce spurious results, as none of the methods of estimation discussed can capture the true nature and character of Cameroon's situation and that of other developing countries. Again the review shows that several variables except corruption lead to capital flight. Most of the empirical studies did not include corruption as a determinant of capital flight. Whereas most of the capital flight that occur in developing countries especially Cameroon emanate from corrupt practices. This study fills this gap by incorporating corruption as an explanatory variable and tests if any significant relationship exists between corruption and capital flight in Cameroon.

### 2.3. Theoretical Literature

This work is inspired or built on the investment diversion theory, debt driven capital flight thesis, tax-depressing thesis and the austerity generating thesis. Firstly, the investment diversion theory holds that capital flight is occasioned by two sets of forces- macro economic and political uncertainty in developing countries and better investment opportunities in advanced nations. The better investment opportunities in developed nations is the outcome of high interest rate, a variety of financial instruments, political and economic stability, the nature of the tax policy and the keeping of secret accounts. These two sets of conditions make it such that different categories of persons for various reasons move resources from less developed countries to advanced countries. The absence of these funds from LDCs culminate in a fall in investments, low economic growth, increasing unemployment, increase dependency ratio and increase death rate.

Secondly the debt driven capital flight thesis is seen to complement the investment diversion thesis. It holds that in the face or context of a huge external debt in a country, people tend to transfer funds to foreign countries. Here, borrowed funds are even moved out of the country. In fact, according to this theory capital flight reduces the desire to save and invest because of the expectation of exchange rate devaluation, fiscal crisis and expropriation of assets to pay the debt. The working together of the investment diversion theory and debt driven capital flight theory reinforces the interdependence between capital flight, growth and development and external debt. That is, capital flight compromises growth necessitating more borrowing to boost growth which instead encourages capital flight.

Again, there is the tax-depressing theory which holds that capital flight results in a possible loss of tax revenue because money transferred abroad cannot be taxed to use for domestic economic growth and development. This also reduces the debt-servicing capacity of the home government. This increases the debt burden which further constrains economic

growth and development. This means that capital flight reduces the income generating capacity of a government.

Finally, [15] in the austerity thesis sees the poor pushed into more debt due to capital flight. In this context the severity of poverty is increased by increase taxation or other severe measures adopted by government to service international debts in banks in foreign countries which offer high interest rates to curb capital flight.

### 3. Methodology

In this study we employ time series data over a period of 44 years between 1970 and 2013, inclusive. The choice of this time frame is based on the fact that we want to evaluate capital flight both in the pre-debt crisis of heavy borrowing and the period after the debt relief. Another reason for choosing this period is that the Cameroon government has made significant efforts between the late 1970s, the early 1990s and the mid-2000s to stimulate the growth and development of the economy. This study makes use of secondary data from World Bank statistics, UNTAD statistical yearbook, IMF publications, and the National Institute of Statistics, to capture the cause-effect relationship between the variables under consideration. Hence, this study has adopted the ex-post factor research design.

#### Measurement of Capital flight

Since we considered capital flight to include private capital flow of any kind that result in the acquisition of foreign assets by residents of a country, the residual method is the best in such a situation. Based on the residual approach developed by the World Bank, capital flight is the difference between capital inflows and foreign exchange outflows. This is due to the fact that any inflow that does not finance the current account deficit or add to reserves flees the country in the form of capital flight [42]. Accordingly, flows that do not go to either account are regarded as capital flight. This therefore implies that capital flight is given as:

$$KF_t = \Delta DEBT_t + FDI_t - (CA_t + \Delta RES_t) \quad (1)$$

Where KF refers to capital flight,  $\Delta$ Debt refers to change in total external debt stock, FDI refers to the net flows of

foreign investment, CA refers to the current account deficit, and  $\Delta RES$  refers to the changes in the accumulation of foreign reserves. The technique used in computing capital flight will follow that of [42] which is expressed as;

$$KF_{it} = \Delta DEBTADJ_{it} + DFI_{it} - (CA_{it} + RES_{it}) + MISINV_{it} \dots (2)$$

where  $\Delta DEBTADJ$  is the change in the country's stock of external debt (adjusted for cross-currency exchange rate fluctuations);  $DFI$  is net foreign direct investment;  $CA$  is the current account deficit;  $\Delta RES$  is the change in the stock of international reserves; and  $MISINV$  is net trade misinvoicing. This method is however a modification of the one used by the [28] which is based on the difference between the inflows of foreign exchange from external borrowing and the uses of foreign exchange [43]. [40] refined this measure by incorporating adjustments for trade misinvoicing and for the impact of exchange rate fluctuations on the dollar value of external debt. In this study, we followed [44] by including two further innovations to the method of computation of capital flight. First, we adjust the change in debt to account for debt write-offs. Debt write-offs reduce the stock of debt although they have no corresponding flow of debt service. Hence, they lead to an overstatement of debt service and an understatement of the change in debt obtained as the change in annual debt stocks over consecutive years. Secondly, we include an adjustment for underreporting of remittances.

In investigating the relationship between capital flight and economic development and how capital flight determines economic development, we developed two equations namely; the capital flight equation and the economic development equation. Our equations of capital flight and economic development will be specified based on existing literature – the works of ([2], [42], [45], [44]), [37], [20], [24], [6] and the investment diversion theory, debt driven capital flight thesis, tax-depressing thesis and the austerity generating thesis. Therefore, from the above our two equations will be specified as follows:

#### Capital flight equation

$$CF = f(EXDEBT, EXR, FDI, INFL, CPI, GDP/p) \quad (3)$$

In econometric form, the capital flight equation is given as;

$$\Delta LCF = \beta_0 + \beta_1 \Delta LEXDEBT_t + \beta_2 \Delta LEXR_t + \beta_3 \Delta LFDI_t + \beta_4 \Delta LINFL_t + \beta_5 \Delta CPI_t + \beta_6 \Delta GDP/p_t + \epsilon_0 \quad (4)$$

The a priori is given below as:

$$\beta_1 > 0, \beta_2 > 0, \beta_3 > 0, \beta_4 > 0, \beta_5 > 0, \beta_6 > 0,$$

#### Economic development equation

$$EDEV = f(RIR_t, LEXP_t, EXDEBT_t, CF, FDI_t, INF_t + LFISDY_t) \quad (5)$$

In econometric form, the economic development equation is given as;

$$LEDEV = \alpha_0 + \alpha_1 LRIR_t + \alpha_2 LLEXP_t + \alpha_3 LEXDEBT_t + \alpha_4 LCF_t + \alpha_5 LFDI_t + \alpha_6 LINFL_t + \alpha_7 LFISDY_t + \epsilon_1 \quad (6)$$

The a priori estimates are;  $\alpha_1 < 0$ ,  $\alpha_2 > 0$ ,  $\alpha_3 > 0$ ,  $\alpha_4 < 0$ ,  $\alpha_5 > 0$ ,  $\alpha_6 < 0$ ,  $\alpha_7$

CF is capital flight measured using the residual method taking into consideration the various adjustment, EXDEBT is

the external debt of Cameroon as a ratio of the GDP, EXR is the official exchange rate of local currency per US \$, FDI is net foreign direct investment net inflows, INFLA is the rate of inflation measured as changes in the consumer price index, CPI is the corruption perception index as a proxy of corruption, GDP/p is the gross domestic product per capita, measured as an increase in the real per capita gross domestic product of the economy of Cameroon over time, RIR is the real interest rate and FISDY is the Fiscal deficit as a percentage of GDP, standing for the difference between government revenue and expenditure.  $B_0, \alpha_0$  are the respective constant terms,  $\epsilon_0, \epsilon_1$  the respective stochastic or error terms with the assumed normality.  $\beta_1$  to  $\beta_6, \alpha_1$  to  $\alpha_7$ , are all coefficients of the parameters to be estimated, as stated by the Gauss-Makov theory.

In estimating equations 3.3 and 3.4 above, the Fully Modified Least Squares (FMOLS) technique was used. The FMOLS regression was designed by [46] to provide optimal estimates of co-integrating regressions. The method modifies least squares to account for serial correlation effects and for the endogeneity in the regressors that result from the existence of a co-integrating relationship. This paper provides a general framework which makes it possible to study the asymptotic behaviour of FMOLS in models with full rank I(1) regressors, models with I(1) and I(0) regressors, models with unit roots, and models with only stationary regressors.

The procedure of FMOLS has two direct advantages. Apart from correcting for endogeneity and serial correlation effect that are normally present in long run relationship, it also asymptotically eliminates the sample bias. There are two conditions considered essentially for the appropriateness of the FMOLS. First, there is only one integrating vector. Second the explanatory variables are not co-integrated among themselves. Assuming these conditions are met, the

econometric model is of the following form:

$$y_t = \alpha_0 + \alpha_1'X_t + \mu_t, t=1,2, \dots, n \tag{7}$$

Where  $y_t$  is an I(1) variable and  $X_t$  is a (k X 1) vector of I(1) regressors, which are not co-integrated among themselves. By assumption,  $X_t$  has the following first difference stationary process:  $\Delta X_t = \eta + \lambda_t, t = 2, 3, \dots, n$

Where  $\eta$  is a k x 1 vector of drift parameters,  $\lambda_t$  is a k X 1 vector of I(1) variable. It is also assumed that  $\mu_t = (\mu_t + \lambda_t')$  is strictly stationary with zero mean and a finite positive-definite covariance matrix, 2. The estimated parameters have also been validated based on economic theories, statistical criteria, and the econometric second order condition. Stationarity test has been conducted based on the proposition that the Cameroon economic terrain is unstable with large informal and irrational behaviours such as corruption. While the economic a priori expectations relate the result to traditional economic theories, the econometric test is merely concerned with the reliability of the result, based on the signs and the magnitudes of the parameters estimated.

### 4. Presentation and Discussion of Results

We started by looking at the trend analysis of the variables understudy. It was observed that all the variables exhibit a stochastic trend with drift implying that they are non-stationary. Hence, employing the Augmented Dickey Fuller (ADF) and Phillip Peron (PP) test of stationarity we observed that capital flight, inflation and fiscal deficit were stationary at level while all the other variables gained stationarity after their first difference. Therefore, they were integrated of the order one i.e I(1). We then proceed to present the pair wise correlation results of the variables understudy as shown below.

Table 1. Pairwise Correlation Result.

	Gdp	Cf	fisdY	Exebt	fdi	inf	Rir
gdp	1.0000						
Cf	-0.3757*	1.0000					
fisdY	0.2383	-0.0367	1.0000				
exeBT	-0.8294*	0.2561	-0.3083	1.0000			
Fdi	0.2693	-0.3789*	-0.0670	-0.2943	1.0000		
Inf	-0.2878	0.4967*	-0.0490	0.0700	-0.1586	1.0000	
Rir	0.1855	-0.2936	-0.1607	0.1766	0.1877	-0.5864*	1.0000
Exp	-0.0400	0.0017	-0.0532	-0.3086	0.3064	0.1476	-0.2511

Note that \* = significant at 5%Source: Authors

#### Capital flight equation

$$CF = -16167 + 403.07 DINF + 164.34DCPI + 17.247DEXEBT - 1.55DFDI + 13.705 DEXR + 2.9452DGDP \tag{8}$$

(0.0215)\*\*(0.0036)\*(0.1214)(0.3000)(0.855)(0.0342)\*\*(0.4686)

$$Adj R^2 = 0.0967 DW = 1.74125$$

#### Economic development equation

$$GDP = 1312.919 - 0.0105CF + 9.5102RIR - 4.9292EXEBT + 1.53FDI - 0.73083FISDY + 0.7629INF - 10.123EXP \tag{9}$$

$$(0.00)*(0.239)(0.000)*(0.000)*(0.813)(0.6589)(0.7452)(0.001)*$$

$$\text{Adj } R^2 = 0.81624 \text{ DW} = 1.28456$$

*Computed by the authors from the fully modified least square. Note that the values in parentheses are the probability t-statistics; \* = significant at 1%; \*\* = significant at 5%; \*\*\* = significant at 10%.*

Looking at the pairwise correlation result presented above which shows the relationship between all the variables used in the study, it can be noted that there exist a negative significant relationship between capital flight (CF) and Economic development in Cameroon over the period of study. This negative relationship implies that the two variables are moving in opposite directions. There also exists a significant negative relationship between external debt and economic development in Cameroon. Foreign direct investment and inflation have a significant negative and positive relationship with capital flight in Cameroon respectively. The correlation result also shows that real interest rate has a significant negative relationship with the rate of inflation.

The capital flight result presented on equation 4.1 above shows that inflation rate has a positive significant impact on the rate of capital flight in Cameroon. This implies that a unit increase in inflation will increase capital flight by 403.1 units in Cameroon. This is significant at 5 percent. This is explained by the fact that inflation reduces the real return on domestic assets and investors see it as detrimental to their assets. Hence, investors are encouraged to carry their assets abroad to avoid this negative return of inflation on domestic assets. This is in accordance with the portfolio choice theory and the work of [19]. The result also shows that exchange rate positively affects capital flight significantly. With a magnitude of 13.705, a unit increase in the rate of exchange will increase capital flight in the Cameroon by 0.0432 units. The positive effect is explained by the fact that the franc CFA is overvalued. The significance of the constant term indicates that there are other variables not included in the model like openness of the country and economic growth which aggregately influence capital flight in Cameroon. However, the model may not be very relevant in our study as it is not statistically significant as well as it has a very low power of predictability as shown by a very low adjusted R-Squared of 0.0967. The Durbin Watson test statistic of 1.741 which is greater than the lower limit value ( $d_L = 0.994$ ) and lesser than the upper limit value ( $d_U = 1.991$ ) fall in the zone of inconclusive evidence of autocorrelation. Thus we cannot say with certainty that our result is affected by autocorrelation.

As concerns the economic development result presented in equation 4.2 above, it can be observed that capital flight exerts a negative impact on economic development in Cameroon over the period of study. With a magnitude of 0.0105, a unit increase in capital flight will reduced economic development by 0.239 units. The results show that this effect is however insignificant.

The real interest rate and external debt exhibits a positive and negative significant effects on economic development

over the period of study. The positive effect of real interest rate is not in line with the neo classical and Keynesian postulate of negative relationship between interest rate and economic development and investment. However, this finding is in line with the works of [47]. External debt on its part lead to fiscal crisis like high taxes which retards economic development. This outcome goes to support the work of [49] and [50]. The result of the economic development equation also shows that export has a significant negative effect on economic development in Cameroon.

## 5. Recommendation and Conclusion

Based on the findings of the study, we recommend that there is need for a huge potential for capital flight reversals and investing this capital in the real sectors of the economy like education and health. Also, efforts must be implemented towards the designing and implementation of appropriate policy measures that would encourage flight capital to return to the country. Better economic reforms that will encourage the inflow of foreign capital should be implemented. These reforms should, however, be based on improving economic development which could reverse the negative distributional effects of capital flight. Specific policies might include repatriation of flight capital to boost the growth initiatives with selective controls on capital outflow, and the government needs to enact a law-protecting Cameroonians involved in capital flight to enable them repatriate this stolen money back home which will indirectly go a long way to reduce unemployment and improve the living standards of the citizens. One thing which stands out clearly is that no number of internal campaigns will be able to secure all the lost capital from Cameroon. As a result of this, the solution lies in eliminating the economic and political distortions in the economy so as to engender confidence among the citizenry.

The issue with Cameroon external debt is that it is not employed in productive sectors that can stimulate growth and development. The borrowed funds are embezzled and even the little amount that remains in the economy are being used for political purposes like sponsoring political campaigns which do not significantly influence the aggregate level of investment.

In order for Cameroon to attain the state of emergence by 2035, there is need to broaden the export base. The government should improve on the diversification of her exports, so as to reduce over reliance on few primary products (cocoa, coffee, banana and cotton). In addition, in order to increase the value of export earnings, primary commodities that constitute more than 65% of exports should be processed before exportation. Efforts should also be made to promote the export of manufactured products.

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## References

- [1] Bouchet, M & Gros Lambert .B. (2006), An empirical study of the relationships between corruption, capital leakages and country risk. *Cuadernos de Diffusion*. 11, N0. 20, 9-27.
- [2] Ndikumana, L. (2000). Financial determinants of domestic investment in Sub-Saharan Africa: Evidence from panel data. *World Development*, Vol.28, No.2, pp.381-400.
- [3] Collier, P, Hoeffler, A. and Cathy Pattilo (2001). *Flight Capital as Portfolio Choice*: IMF Working Papers 171 Washington D.C.
- [4] Ndikumana, L. and J.K. Boyce (1998), 'Congo's Odious Debt: External Borrowing and Capital Flight in Zaire', *Development and Change*, Vol. 29, pp. 1995–217.
- [5] UNECA (United Nations Economic Commission for Africa). 2007. *Economic report on Africa 2007: Accelerating Africa's development through diversification*. Addis Ababa: UNECA.
- [6] Forgha, N., G. (2008). "Capital Flight, Measurability and Economic Growth in Cameroun: An Economic Investigation. *International Review of Business Research Papers*, 4, pp. 74-90.
- [7] Ndikumana, L., and J., K., Boyce (2007) "New Estimates of Capital Flight from Sub-Saharan African Countries: Linkages with External Borrowing and Policy Options", Paper prepared for the *Senior Policy Seminar* on "Capital Flight from Sub-Saharan Africa: Implications for Macroeconomic Management and Growth", October 30-November 2, 2007, Pretoria, South Africa.
- [8] Leite, C. and J. Weidmann (1999), "Does mother nature corrupt? Natural resources, corruption, and economic growth", IMF Working Paper No. 99/85.
- [9] Stevens P. (2003), "Resource Impact: Curse of Blessing?," A Literature Survey, *Journal of Energy Literature IX*, pp. 3-41.
- [10] Wurthmann G. (2006), "Ways of Using the African Oil Boom for Sustainable Development", *African Development Bank, Economic Research Working Paper No 84*.
- [11] World Bank. (2006). *Global development finance 2006*.
- [12] Artadi, E. V. and Sala-I-Martin, X. (2003). The economic tragedy of the XXth century: Growth in Africa. NBER Working Paper Series, Nr. 9865.
- [13] Collier, P. (2006). African growth: why a big push? *Journal of African Economies*, (15), Supplement 2, 188-211.
- [14] Lawanson, A.O. 2007. An Econometric Analysis of Capital Flight from Nigeria: A Portfolio Approach. Research Paper No. 166. African Economic Research Consortium, Nairobi.
- [15] Pastor, M. (1990), "Capital Flight from Latin America, World Development" Volume 18.No.1.pp.1-18.
- [16] The Global Financial Integrity. (2010) UNECA (United Nations Economic Commission for Africa), *Economic Report on Africa (2007: Accelerating Africa's Development Through Diversification*. Addis Ababa: UNECA.
- [17] Baek, S. & Yang, D.. (2008)"Empirics on Capital Flight." *Journal of Economic Literature*.
- [18] Makochekeka, A. (2007). An Empirical Investigation of Capital Flight from Zimbabwe. A working paper series, Department of Economics, University of Pretoria, South Africa. JEL classification: F39, O11.
- [19] Akanni, O., L., L. (2007). An econometric analysis of capital flight from Nigeria: a portfolio approach. AERC research papers, no 166
- [20] Mariana, C. (2006), *The Measurement of Capital Flight and Its Impact on Long Term Economic Growth : Empirical Evidence from a cross section of Countries*, Master Thesis, Faculty of Mathematics, Physics and Informatics, Comenius University Bratislava, Bratislava.
- [21] Ngeno, N.K.(2000), Capital flight in Kenya. paper presented at AERC workshop, Nairobi, Kenya.
- [22] Ajadi, S. F. (2008). Econometric analysis of capital flight in developing countries: a study of Nigeria. 8th Global Conference on Business & Economics. October 18-19th, 2008. Florence, Italy. ISBN: 978-0-9742114-5-9 Al-Fayoumi, N., Alzoubi, M., & Abuzayed, B. (2011). Determinants of capital flight: Evidence from MENA countries. Paper presented at the Barcelona European Academic Conference. Retrieved from <http://www.conferences.cluteonline.com/index.php/IAC/2011/SP/paper/viewFile/438/444>
- [23] Gusarova, V. (2009), The impact of Capital flight on economic growth. Unpublished Master's Thesis of the KYIV School of Economics.
- [24] Ajayi Ibi, S. (1992). "An Econometric analysis of Capital flight from Nigeria". World Bank Working Paper 1992, WPS0993.
- [25] Nyong M.O (2003), capital flight and economic growth in four African countries, Nigeria, Cote D'Ivoire, Morocco and Ghana, DMO monthly seminar series n°2, February.
- [26] Walter I. (1987), "The Mechanisms of Capital Flight," in D. R. Lessard and J. Williamson (eds) *Capital Flight and Third World Debt*, Washington DC: Institute for International Economics.
- [27] Cuddington (1986). 'Capital Flight Estimates, Issues and Explanations', Princeton Studies in International Finance, No. 58.
- [28] World Bank.(1985). *Capital Flight and the Third World Debt*. Institute of International Economics, Washington D.C.
- [29] Erbe, S. (1985). "The Flight of Capital from Developing Countries". *Inter-economics*, 20(4):268-75.
- [30] Duwendag, D. (1987), Capital Flight from Developing Countries. Estimates Analytical Notes, *Journal of Development Economics*, 6-15.
- [31] Ajayi, I. S., (1997). "An Analysis of External Debt and Capital Flight in the Severely Indebted Low Income Countries in Sub-Saharan Africa," IMF, Working Paper WP/97/68.
- [32] Meier and Baldwin,(1957). *Economic Development*, John Wiley and Sons, Inc.
- [33] Morgan Guaranty Trust Company. (1986). LDC Capital Flight. *World Financial Markets*, pp 13-15.
- [34] Collier, P. and Gunning, J. W. (1999). Explaining African economic performance. *Journal of Economic Literature*, 37 (1): 64 -111.

- [35] Lensink, R., N. Hermes, and V. Murinde (1998): The Effect of Financial Liberalization on Capital Flight in African Economies, *World Development*, 26(7), 1349-1368.
- [36] Ndikumana, L. and Boyce, J. K. (2003). Public debts and private assets: explaining capital flight from Sub-Saharan African countries. *World Development*, 31 (1) 107-130.
- [37] Ndiaye, A. S. (2009). Examining the Effect of Capital Flight on Domestic Investment in the Franc Zone, Paper presented at the "African Econometric Society (AES)", 14th Annual Conference on Econometric Modeling for Africa, Sheraton hotel, Abuja, Nigeria.
- [38] Beja E Jr. (2007). Capital flight and economic performance. Munich Personal Repec Archive Paper No 4885. pp ;1-25. Available: <http://mpra.ub.unimuenchen.de/4885/>
- [39] Kolapo, F.T, Oke MO. (2010) Nigerian economic growth and capital flight determinants. *Asian Journal of Business and Management Science*. 1(11):76-84.
- [40] De Boyrie, M. (2011). Money Laundering and Income Tax Evasion: The Determination of Optimal Audits and Inspections to Detect Abnormal Prices in International Trade, capital *Journal of Financial Crime*, 12, 123–130. <http://dx.doi.org/10.1108/13590790510624972>.
- [41] Ali, & Walters B. (2011). On the Causes of Capital Flight from Sub-Saharan Africa. University of Manchester; F20, E6, G11, 055
- [42] Boyce, J., K., and L. Ndikumana,. (2001). Is Africa a Net Creditor? New Estimates of Capital Flight from Severely Indebted Sub-Saharan African Countries, 1970-1996, *Journal of Development Studies*, 38 (2), 27–56.
- [43] International Monetary Fund. (2007a). Balance of payment statistics. CD-ROM edition.
- [44] Ndikumana, L. and J.K. Boyce. 2008. "New estimates of capital flight from sub-Saharan African countries: Linkages with external borrowing and policy options". Political Economy Research Institute (PERI) Working Paper No. 166, Massachusetts, April.
- [45] Ndikumana, L., and J., K., Boyce. (2010). Measurement of Capital Flight: Methodology and Results for Sub-Saharan African Countries. *African Development Review*, Vol. 22, No. 4, 2010, 471–481.
- [46] Phillips, Peter C B & Hansen, Bruce E,( 1990). "Statistical Inference in Instrumental Variables Regression with I(1) Processes," *Review of Economic Studies*, Wiley Blackwell, vol.57(1), pages 99-125, January.
- [47] Agrawal, P.(2000). Economic Impact of Foreign Direct Investment in South Asia. Indera Gandhi Institute of Development Research, Bombay, India.
- [48] Ghura, D. and Godwin B. (2000), Determinants of Private Investment: A Cross Regional Empirical Investigation, *Applied Economics*, Vol.32, 1819-1829.
- [49] Mbanga, G.N. and Sikod, F. (2001); "The Impact of Debt and Debt-Service Payments on Investment in Cameroon". A final Report presented at AERC Bi-Annual Research Workshop at the Grand Regency Hotel, Nairobi, May, 26-31.
- [50] Lawanson (2012) "Inflation Thresholds And Economic Growth: Evidence From Nigeria", *Asian Economic and Financial Review*, Vol. 2, No. 7, pp. 876-901.