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# Capital Flight and Nigeria Economic Growth: A Time Series Approach

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## Abstract

The study explored the impact of capital outflow in Nigeria, and focuses on its implications for the country's emerging economy. It reviews relevant literature and theories. It applied the Augmented Dickey-Fuller test to analyze the time series data obtained for the investigation. The ARDL bounds tests for cointegration was used to determine the relationships among the variables. The autoregressive distributed lag method was also employed to evaluate the short- and long-term associations between the explanatory factors and economic growth. Findings reveal a limited correlation between capital outflow and economic growth, whereas foreign direct investment showed minor negative impact in the long run. It was also revealed in the investigation that leadership style and Governance contribute to capital flight in the country. Recommendations were to the effect that, creation of a favorable economic environment were necessary to reduce capital outflow, promote trade liberalization, and encourage regional integration to enhance market access.

**Keywords:** Capital Flight, Economic Growth, Foreign Direct Investment, Emerging Economy, Augmented Dickey-Fuller Test.

## Introduction

Capital flight is the rapid outflow of financial assets and capital from a nation to foreign markets, and has been a significant concern for many developing economies, including Nigeria. Capital flight as described by De Boyrie and Kreinin, M. (2012) opined that, capital flght is the temporal withdrawal of private capital due to uncertainty and economic misery. As such, capital flight is seen as any typical capital outflow injected by economic players in developing countries with the intention of transferring the funds to their home country. This phenomenon undermines economic stability, hampers growth prospects, and creates challenges for sustainable development. The economic implications of capital flight are profound, as it deprives the domestic economy of much-needed resources for investment into productive sectors, such as agriculture, manufacturing, and services.

Nigeria, with its vast natural resources and significant economic potential has long struggled with the issue of capital flight. Despite being one of Africa's largest economies. Nigeria's economic growth has been inconsistent, and plagued by various structural challenges such as, inadequate infrastructure, political instability, and corruption. These breed attractive environment for capital flight for both potential and existing investors who seek to safe haven for their assets against likely risks.

Capital flight tends to have a negative influence on domestic investment as money transfers out of the country are capable of instigating scarce resources otherwise, would have supported local production. Bredino et al. (2018) corroborates this position when the aver that, African countries established corrupt practices and illicit financial transfers created liquidity deficiency needed which could have promoted economic growth. Unfortunately, although these countries are still saddled with inadequate resources, vast amount of wealth are still being siphoned offshore by political officeholders and other privileged individuals whereas, their countries are in huge debt. Nigeria is not left out in this league of capital-flight most affected nations. It is estimated that it sustains a yearly loss of about $10 billion to capital flight. According to Obadan (2004) opined that Nigeria has a plethora of challenges stemming from the attitudinal posture of leaders, ideals, and structural imbalances, which creates room for acts and inactions that hampers economic progress. Some of these unwholesome practices include; siphoning, mismanagement, and diversion of public resources which ultimately, leaves a devastating blow on the nation's resources and poor foreign exchange reserves.

**Statement of Problems**

Capital flight remains a pervasive challenge for Nigeria. Significantly undermines the country's economic stability and opportunities for growth and technological advancement. Despite the country's vast natural and human resources, its economy has not realized the full potential partly, due to the level of capital outflow. This run of financial assets deprives the nation of very many important investments especially, in these sectors; agriculture, manufacturing, and services, essential for fostering economic development and improving the living standards of the people.

Association between capital flight and pecuniary progress has been investigated by academics from diverse perspectives. Suffice it to say that since the 1980s, Nigeria has faced increased capital flight by politicians and other private entrepreneurs. This has exacerbated the lack of resources for economic expansion, as there has been incessant depletion in the country's gross domestic product (GDP) as well as, dwindling foreign reserves. For instance, in 2017, the country's foreign reserve was 40.50 billion USD. By 2020, it dropped to about 36.73 billion USD. Surprisingly, by the end of December 2023, it had plummeted to 33.07 USD, (Central Bank of Nigeria). These developments can be explained from the perspective of investable funds flown off shore but not repatriated home or diverted assets through corrupt and illegitimate channels out of the country. One of the critical issues contributing to capital flight in Nigeria is the lack of stable and conducive economic environment. Factors such as political instability, corrupt practices, inadequate infrastructure, and inconsistent economic policies are drivers for capital flight. Similarly, leadership styles and bad governance have been implicated in exacerbating the problem, with poor management and a lack of transparency further eroding investor confidence.

Previous studies on capital flight examined its origins and influence on local debt and economic growth. Ajayi's (2002), investigated the factors influencing capital flight.

Njimanted (2008), and Akani et al. (2016), analysed capital flight and economic growth. Similarly, the same were for Valeriia, G. (2009), and Ngunjiri (2019). Many of these studies did not evaluate the macroeconomic conditions or government's policy thrust which affects flight of capital notably, the local economy. This study among others, considers the lacuna not addressed in the cited studies above. It examines the Growth effect of Capital Flight in Nigeria: a parsimonious analysis from 1981–2022.

Further to this, the research attempts to remedy the perceived vacuum by presenting a complete assessment of the relationship between capital flight and economic development in Nigeria and gives insight to the degree that capital flight effects the country's economic performance. In so doing, providing crucial information for policymakers to develop stable and attractive investment climate, reduce capital outflows, and support sustainable economic growth in Nigeria.

**Objectives of the Study**

This study is aimed at attaining the following objectives;

i. Evaluated the effect of capital flight on economic growth in Nigeria
ii. Examine the impact of foreign direct investment on economic growth in Nigeria
iii. Assess the influence of leadership styles on economic growth in Nigeria

## Literature Review

**Conceptual Clarification**

**Capital Flight**

As mentioned in the reports of Morgan Guaranty Trust Company in 1986 capital flight is considered as the purchase of a new assets from foreign territory. In Berger (1987), it is the illegitimate transfers of funds from one nation to another. He further observed that, in order for development to be achieved, it is desirable to move capital from one location to another. This view expounds the importance of capital mobility as a tool to advance the globalization doctrine around the world. Saheed and Ayodeji (2012), buttressed capital flight to represent the movement of local savings from emerging nations to advanced nations. Capital flight may also be considered as the movement of monetary assets from the holder's perception that capital is vulnerable to danger owing to devaluation, hyperinflation, political instability, or the expropriation of retained profits at home in local currencies. According to Olawale and Ifedayo (2015), the movement of cash from one area or region to another might be privately or publicly driven to produce funds for investment or to lessen the present and future degree of government control, as well as the possibility of confiscation of such money. The term capital flight, is therefore, the deliberate movement of money from the earning nation to the saving or investing nation with the aim of establishing solid trust for the future.

**Economic Growth**

The rise in product and service output over a period of time is termed economic growth. For the measurement of economic growth to be correct, it must eliminate the impacts of inflation. According to Aiguh (2013), economic growth is defined as the progress an economy makes to generate goods and services over a period of time. It is deemed a positive shift in the output, or production of a country or an economy. Consequently, one of the approaches to establishing economic growth is to compute it as a percentage rise in the gross domestic product of a specific economy. Paul (1988), argues that economic progress happens anytime resources are reorganized in ways that are more useful to trigger up productivity. To generate valuable end in goods and services, the right mix of factors input is important.

**Theoretical Literature**

The study is anchored on two theories, namely, the theory of Investment Diversion and Portfolio Diversification.

**Theory of Investment Diversion**

The theory of investment diversion can be traced to the works of several notable scholars, like Richard Baldwin, Rickard Forslid, Kindleberger (1996), Viner (1950), and Dunning and Robson (1998). The theory tried to examine the effect of investment creation through the diversion of funds, including regional integration and trade agreements of various forms. The theory states that foreign direct investment can lead to additional investment, create new economic activities and growth. As a result, the transfer of funds can bring new technology, management skills, experience and expertise, resources, and human capital that will complement investment in the domestic economy.

Ahert (2014), posit that as the increase in savings outweighs increase in investment, it results in severe capital movement. He claimed that the after effects are a drop in developing countries' capital and investment funds. This will eventually disrupt critical macroeconomic infrastructure, such as the exchange rate and path to economic growth. Jude (2014), believed that such outflows cause external reliance and indebtedness, crowd-out effect and devaluation of the home currency. Skare and Sinkovic (2013), also underlined that this worsens the savings gap, compels collective speculation and constrains monetary expansion.

**Theory of Portfolio Diversification**

The theory was propounded by Markowitz in 1952. It states that investors may minimize risks and increase returns by spreading their investments over a variety of assets and geographic locations. The theorist agrees that by diversifying their portfolios, investors may reduce overall investment volatility and enhance their risk-return trade-off. He posits that, investing in a diverse portfolio of assets with imperfect correlations, lowers risk. By holding a variety of asset classes (stocks, bonds, real estate, etc.) and in geographic

locations, the investor mitigates loss. He further expounded that investors may minimize the impact of a poor investment performance in any one asset or place in whole array of portfolio or in a single portfolio.

Portfolio diversification being a financial theory advocates spreading out investments over a variety of assets, industries, and geographical area. Investors may reduce risk and boost profits by adopting this strategy. The basic tenet in this is that different assets respond differently to economic and market conditions. Tobin's (1958), Markowitz (1952), Sharpe (1964) and Tobin (1958), were credited for developing the Portfolio Diversification Theory. His seminal work "Portfolio Selection," published in 1952, provided the foundation for contemporary portfolio theory (MPT). Apart from proposing the concept of diversification, Markowitz demonstrated how investors may construct portfolios that optimizes returns, while taking into account their risk tolerance. For his contributions, he received the 1990 Nobel Prize in Economics.

A basic foundation for comprehending how investors distribute their investments to minimize risk and maximize profits. It is crucial to understand this, its limits and take into account the larger political and economic environment when planning issues of diversification or capital flight. Sustaining strong and efficient investment strategies necessitates continuous evaluation of market circumstances and asset correlations in order to achieve successful investment theory of portfolio diversification is of great significance in the economic environment of Nigeria. Nigerian investors and policy makers may more effectively comprehend and handle the dangers related to capital flight and economic instability by putting this idea to practice. In order to draw and hold on to investment, the idea emphasizes how crucial it is to provide a stable investment climate, grow a varied financial market, and encourage sectorial diversity. In the end, Nigeria may attain more sustainable growth and economic stability if it implements this theory.

**Empirical Literature**

The study done by Bashir et al. (2023) evaluated the short- and long-term impacts of capital flight on Pakistan's economic growth. The World Bank's residual technique is employed in this study to estimate the amount of capital flight from Pakistan between 1976 and 2018. The influence of capital flight on Pakistan's economic development was explored in this study utilising the autoregressive distributed lag (ARDL) technique. Long-term economic growth and several metrics of capital flight indicate a negative and statistically significant link, according to ARDL statistics. Short-term statistical significance is not observed in this link, though. Following corrections for trade mis invoicing and external borrowing, this analysis shows that the total amount of capital fled from Pakistan over the research period was US$333 billion (in 2010 dollars). Pakistan poses a substantial capital flight concern, as demonstrated by the fact that the stock of capital after collecting interest profits was US$124,768 billion, much greater than the accumulated stock of long-term debt, which was US$1,231 billion throughout the research period.

Peprah et al., (2023), investigated the impact of capital flight on sub-Saharan African economic growth. The study's data set is from 1996 to 2018, and the data analysis employs dynamic panel estimators. As predicted, the results demonstrate that whilst increased tax income stimulates growth, capital flight impedes economic progress in SSA. However, excellent governance indices limit the impacts of capital flight and tax income on sub-Saharan Africa's economic growth. Put another way, effective governance boosts the effect of mobilising local revenue on growth while greatly reduces the draining effect of capital flight on economic growth. Therefore, it may be said that good governance-enhancing activities are important to Africa's economic potential.

In the perspective of Faza et al. (2023), capital flight is a huge concern and threat to the economy of any nation, regardless of degree of development, as it signals squandered investment that builds the groundwork for difficulties down the line. Bad policy choices that robbed the government of much-needed financial resources compounded the economic mismanagement that led to the capital flight in Palestine. The impact of capital flight on Palestinian economic growth is studied in this study. They used yearly time series data from 1981 to 2021 to arrive at their conclusions. Variables and data obtained for the study drawn from multiple sources were explored using the Autoregressive Distributed Lag (ARDL) model. The results demonstrate both short- and long-term relationships between variables including capital flight, real GDP in Palestine, foreign reserves, foreign debt, and domestic investment. The results further indicate that capital flight has a detrimental and substantial effect on the economy. On the other hand, long-term economic development seems favorably impacted by foreign exchange reserves, state debt, and direct investment. It subsequently prompted the administration to put in place realistic economic reform plans in order to restrict the escalating migration of money out of the nation. It similarly suggested focus to be made on these three areas is essential to assure robust macroeconomic stability namely; openness, accountability in public finance management, and building of friendly atmosphere for local production.

Idris (2021), examined the influence of capital migration on economic growth in Nigeria using time-series data ranging from 1980 to 2019. Given the stationarity requirement of the data set, the study employed the autoregressive distributed lag (ARDL) model to calculate the short- and long-run coefficients. The results indicated that a positive and robust association existed between foreign reserves, external debt, domestic investment, and economic improvement in the long run. The research suggests economic reforms as a requirement to prevent a surge in Nigerian capital flight.

Makwe and Oboro (2019), looked studied the influence of capital flight on the economic development of Nigeria throughout the period ranging from 1990 to 2017. The study employed least-squares methodologies and showed that a positive link existed between capital flight and economic progress in Nigeria. The study by Mokitirni (2018), offered a unique twist to the capital flight growth theory by proving the presence of negative links and bidirectional correlations between the variables. The study subsequently found no association between capital flight and economic progress.

Igwemma, Egbulonu, and Nnaji (2018), investigated the connection between capital flight and the Nigerian economy during the period 1986–2016. They utilised a simultaneous equation in their research which indicate the presence of negative linkages between capital flight and economic advancement in Nigeria.

Similarly, the work of Idris (2020), evaluated the effect of capital flight on macroeconomic indices in Nigeria. The research assumes a time series method from the period, 1980 to 2019. The study utilised a number of econometric models, such as simultaneous equation, least-squares approaches, dynamic panel estimators, and ARDL. Finding therefore underlined that political instability is the major driver of the growth in capital flight in Nigeria and suggested a change in the political trajectory of the country in order to support economic stability.

**Measurement of Capital Flight**

There are numerous techniques of assessing capital flight. Some of the ways are the Dooly method, Asset method, mis invoicing, Morgan Guaranty and Residual method which is used by the World Bank. For the objective of this study, the Dooly and Residual approach will be explored.

**Residual Technique**

There are too many techniques to quantify capital flight. This covers dooly, asset, trade mis-invoicing, Morgan Guaranty, and residual. To reach the purpose and goals of this study, we employed the residual approach presented by the World Bank in 1985. This approach measured capital flight by correlating the causes for capital inflows (the net growth in external debt and the net inflows of foreign investment) to capital flows (the current account deficit and additions to foreign reserves). The difference between these two reflects the amount of capital flight out of any country or area of the world.

$KE_t = \Delta D_t + Fi_t - CA_t - \Delta R_t$

Where;

$KE_t$, = Capital flight

$\Delta D_t$ = Change in external debt

$Fi_t$ = Net foreign investment flows

$CA_t$ =Current account deficient and

$\Delta R_t$ = Change in foreign reserves.

## Research Methodology

The research design is the overall strategy that unifies the several topics of study which make up a study. This study employs a quasi-experimental research approach which however, is suitable for social sciences investigation such as this. The goal being to present a robust in sight and gather essential information for the analysis.

**Model Specification**

This study adopted the transform version of Adetiloye (2012), equation which expresses domestic investment as a function of capital flight as shown below:

DI= f (CAPF, EXR, FDI, INFR, CAPF*LS)

The model of this research is based on the Purchasing Power Parity theory, the alteration changes the dependent variable to real gross domestic product to capture economic growth, whereas the other variables remained except the exclusion of the exchange rate owing to the inability to capture all bilateral exchange rates.

The functional form of the model is stated, thus:

$PCGDP= f (CAPF, LS, FDI, INF)$ 1

Econometric form of the model is expressed:

$PCGDP=\alpha_o + \alpha_1 CAPF_t + \alpha_2 LS_t + \alpha_3 INF_t + \alpha_4 FDI_t + \mu t$ 2

Where:

PCGDP = Per Capita Gross Domestic Product at time t.

LS = Leadership Style, 1 = military regime and 0 = civilian regime at time t.

CAPF = Capital Flight at time t.

FDI = Foreign Direct Investment at time t.

INF = Inflation Rate at time t.

α0 – α4 = Parameters

ℓ = error term

The apriori expectation of the above association is that; capital flight, inflation and the interface term are predictable to reduce RGDP, whereas leadership and foreign direct investment inflows will encourage economic growth.

**Description of Variables**

Real Gross Domestic Product (RGDP): Adjusted for price fluctuations, real GDP represents an economy's output of goods and services.

**Leadership style (LS):** Leadership styles are how leaders inspire, encourage, and direct followers.

**CAPF:** Capital flight: Mass outflow of financial assets and money from a country owing to political or economic instability, currency depreciation, or capital control.

**FDI:** is a type of cross-border investment in which an investor from one economy has a long-term interest in and influences a firm from another one.

**Data Source**

The study included yearly secondary data from journals, books, conference papers, the CBN statistics bulletin, the NBS, and World Bank publications for all selected variables.

Pesaran Shin and Smith (2001) used the autoregressive distributed lag technique for estimation.

## Method of Data Analysis

The empirical investigation began with the summary statistics, unit root test utilizing the ADF to establish the suitable method of data analysis. The use of stationary test to determine the characteristic of the time series data which inspired use of autoregressive distributed lag (ARDL) approach. To guarantee that non assumptions of the classical least square was broken, the study utilized normality test of residual stability, Breusch pagan serial correlation test, heteroscedasticity test and cusum test. The adoption ARDL approach in this study is premised on the presence of mixed order of cointegration of the time series data used for the study.

**Table 1:** Descriptive Statistics

| | PCGDP | CAPF | LOG(FDI) | INF | LS |
|---|---|---|---|---|---|
| Mean | 269282.0 | 1212824. | 0.142034 | 20.19786 | 0.547619 |
| Median | 245112.9 | 8882.051 | 0.094767 | 17.60000 | 1.000000 |
| Maximum | 379251.6 | 6074639. | 1.756279 | 72.80000 | 1.000000 |
| Minimum | 199311.3 | 9.500000 | -1.357039 | 4.500000 | 0.000000 |
| Std. Dev. | 64755.39 | 1706385. | 0.743935 | 15.11287 | 0.503761 |
| Skewness | 0.400673 | 1.272911 | -6.48E-05 | 1.813514 | -0.191346 |
| Kurtosis | 1.528361 | 3.710357 | 2.611868 | 5.957596 | 1.036613 |
| | | | | | |
| Jarque-Bera | 4.913783 | 12.22518 | 0.263631 | 38.32973 | 7.002346 |
| Probability | 0.085701 | 0.002215 | 0.876503 | 0.000000 | 0.030162 |
| | | | | | |
| Sum | 11309844 | 50938628 | 5.965432 | 848.3100 | 23.00000 |
| Sum Sq. Dev. | 1.72E+11 | 1.19E+14 | 22.69100 | 9364.347 | 10.40476 |
| | | | | | |
| Observations | 42 | 42 | 42 | 42 | 42 |

The table indicates that observations are 42, the mean of the distribution are 269282.0, 1212824. 0.142034, 20.19786 and 0.547619. The median values are 245112.9, 8882.051, 0.094767, 17.60000, and 1.000000. The skewness values of 0.400673, 1.272911, and 1.813514 reveals that PCGDP, CAPF and INF has positive skewness values of -6.48E-05 and -0.191346, whereas LOG(FDI) and LS has long left tails. Kurtosis score of 2.611868 demonstrates that FDI has a normal distribution (mesokurtic), which others are not. The Kurtosis values of PCGDP and FDI suggest that the study has a normally distributed residual as versus others.

**Table 2:** ADF Stationarity Test

| S/N | Variables | | | | | Order |
|---|---|---|---|---|---|---|
| | | t.stat | crit. val | t.stat | crit. val | |
| 1 | CAPF | -1.707186 | -3.544284 | -5.287015 | -3.544284 | 1 (1) |
| 2 | FDI | -4.002307 | -3.523623 | | | 1 (0) |
| 3 | INF | -2.932870 | -3.523623 | -7.027017 | -3.526609 | 1 (1) |
| 4 | LS | -1.882903 | -3.523623 | -6.247770 | -3.526609 | 1 (1) |
| 5 | PCGDP | -1.885586 | -3.529758 | -4.332661 | -3.526609 | 1 (1) |

**Source**: Authors computation 2024.

Time series data demonstrates that all the data utilized for the study became stationary once they were subjected to initial differences, save the foreign direct investment. Thus, all the data were combined at the first order. Given the diverse degree of amalgamation in the equation, (1) and (0), we apply the ARDL bounds test to ascertain the degree of association among the time series data used.

**Table 3:** ARDL Bounds Test

**Null Hypothesis:** No long-run relationships exist

| Test Statistic | Value | K | Io Bound | I1 Bound |
|---|---|---|---|---|
| F-statistic | 4.781389 | 4 | (5%) | (5%) |
| | | | 2.86 | 4.01 |

**Source:** Authors compilation from EViews 10.05

The bounds cointegration test above, f-statistical value of 4.781389 is greater critical value of 4.01 at 5 percent.

This advises to reject null hypothesis. By inference, a long-run cointegration relationship existed among the variables leading to convergence in the future. Since a long-run correlation existed, we proceed to estimate their long-run and error-correction regressions.

**Table 4:** Short Run Result

| Variable | coefficient | std. error | t-statistic | prob. |
|---|---|---|---|---|
| dlog(pcgdp(-1)) | 0.132553 | 0.142622 | 0.929405 | 0.0366 |
| dlog(pcgdp(-2)) | 0.293871 | 0.142286 | 2.065354 | 0.0494 |
| dlog(capf) | -0.000505 | 0.004310 | -0.117296 | 0.9076 |
| dlog(capf(-1)) | -0.012353 | 0.003609 | -3.422332 | 0.0021 |
| dlog(fdi) | 0.009865 | 0.010284 | 0.959313 | 0.3466 |
| d(inf) | -0.000445 | 0.000466 | -0.954748 | 0.3488 |
| d(ls) | -0.045451 | 0.032179 | -1.412439 | 0.1701 |
| d(ls(-1)) | -0.082117 | 0.039649 | -0.071108 | 0.9439 |
| d(ls(-2)) | -0.056896 | 0.034009 | -1.672964 | 0.1068 |
| cointeq(-1) | -0.214054 | 0.061577 | -3.476190 | 0.0019 |

| | | | |
|---|---|---|---|
| r-squared | 0.901582 | durbin-watson stat | 2.982861 |
| adjusted r-squared | 0.847204 | | |
| f-statistic | 226.5116 | | |
| prob(f-statistic) | 0.000000 | | |

The coefficient of determination, sometimes referred to as R-square, is 0.901582, indicating the regression line's accuracy. The modified R-square is 0.847204. Specifically, around 84 percent of changes in the dependent variable can be explained by the interplay of the series in the model while the remaining 16 percent is in the error term. The adjustment coefficient appeared with the normal sign and it's significant at 5% of 0.214054 (21%). The error-correcting word appears with the customary sign (-), and its statistical significance is 5 percent. As a result, the historical instability will herald a long-term equilibrium at a rate of 21% per annum. Durbin-Watson statistic value of 2.982861 suggests that there is very little or no first-order autocorrelation in the residuals of the regression model.

The one- and two-year lagged values of growth are 0.132553 and 0.293871, respectively, which are statistically significant at the 5 percent level of significance. This indicates earlier values of PCGDP emitted an optimistic and significant outcome on present PCGDP, which, other than being equal, suggests some degree of inertia or persistence in economic activity. Thus, illustrating that previous moments of economic progress in Nigeria are likely to be followed by continuous growth in future eras. The optimistic of the coefficient of the lagged values suggests that increases in RGDP are likely to stay over time. This finding validates the robustness of the study.

Essentially, the existing coefficient of capital flight in the current period has preserved a negative but mild effect on the dependent variable in the short term, while its one-year realization has influenced the dependent variable negatively to the tune of 1%. This indicates that a 1% surge in capital flight will lead to a similar 1% loss in Nigeria's per capita real gross domestic product in the near run. Capital flight often signifies a lack of trust in the economy. Investors withdraw their money out of the country, which can lead to accumulation and slower economic growth. This occurrence is consistent with our a priori forecast and explains the cause of the downturn in Nigeria's economic development. In the short run, the existing dominance of foreign direct investment in Nigeria has a favorable but limited influence on the dependent variable. Thus, changes in per capita gross domestic output are not impacted by a change in foreign direct investment intake in the near term. Furthermore, inflation demonstrates a negative but small connection with the dependent variable. This suggests that changes in the dependent variable are not influenced by changes in the inflation rate in the short term. This finding does not align with theoretical assumptions. The present and previous realizations of leadership style have been dreadful. This reduction in the outcome implies that none was substantial to influence economic growth in Nigeria.

**Table 5:** Long Run Coefficients

| Variable | coefficient | std. error | t-statistic | prob. |
|---|---|---|---|---|
| log(capf) | 0.019343 | 0.017476 | 1.106825 | 0.2789 |
| log(fdi) | -0.013908 | 0.067488 | -0.206087 | 0.8384 |
| inf | -0.002079 | 0.002414 | -0.861188 | 0.3973 |
| ls | 0.296211 | 0.132136 | 2.241709 | 0.0341 |
| C | 12.209518 | 0.154101 | 79.230424 | 0.0000 |

The coefficient of capital flight per capita real gross domestic product is positive and statistically insignificant at 5 percent. Therefore, a one percent increase in capital flight does not impact the dependent variable. When investors shift their assets out of the nation, it can lead to fewer investments, poorer capital accumulation, and eventually slower economic growth. On the other hand, the coefficient of foreign direct investment has a small but negative influence on Nigeria's economic development. Therefore, any change in foreign direct investment does not influence Nigeria's long-term economic success. There are various reasons why the relationship between capital and flight could be weak. One argument would be that government actions in Nigeria, global economic conditions, or domestic investment have a bigger long-term effect on GDP than capital flight alone. This consequence is contrary to economic theory.

In the long run, the coefficient of inflation influenced per capita real gross domestic product adversely but was not significant at the 5% level of significance in the long run. This demonstrates that a change in per capita real gross domestic product is not a function of the inflation rate. This conclusion is not compatible with theoretical assumptions. Finally, the leadership style coefficient has a good impact on per capita real gross domestic product, and it is statistically significant at the 5% level. The economic conclusion of such a relationship is that a percentage rise in Nigeria's leadership will be similar to a 29% gain in per capita real gross domestic product in the long term, ceteris paribus. Effective leadership fosters better decision-making processes, culminating in more effective resource allocation and policy execution that promote economic growth.

## Discussion of Findings

### Short-Run Results

The short-run research gives numerous significant insights:

**Economic Growth Persistence:** The coefficients for the one-year and two-year lagged values of per capita GDP (PCGDP) are positive and statistically significant, with values of 0.132553 and 0.293871, respectively. This illustrates that past economic success has a major favorable impact on current economic growth. The persistence in economic activity reveals that prior times of economic prosperity in Nigeria tend to be followed by prolonged expansion, showing a degree of inertia in the economy. This finding fits with the concept that economic momentum may continue expansion, proving the robustness of the study.

Impact of Capital Flight: The coefficient for capital flight (CAPF) in the present time is negative but statistically insignificant, yet its one-year lagged value reveals a large negative effect on economic growth with a coefficient of -0.012353. This implies that a 1% surge in capital flight is connected with a 1.2% loss in Nigeria's per capita real GDP in the near run. The negative impact of capital flight is consistent with theoretical assumptions, revealing how capital outflows may hinder economic stability and growth by eroding investor confidence and decreasing local investment.

**Foreign Direct Investment (FDI):** The coefficient for FDI is positive but not statistically significant, demonstrating that changes in foreign direct investment do not have a large short-term effect on economic growth. This study reveals that while FDI may have a role in long-term growth, its immediate effect on economic activity is limited in the Nigerian setting.

**Inflation and Leadership Style:** Inflation reveals a negative but tiny link with economic progress in the short run, confounding the projected theoretical correlation. Similarly, the leadership style variable has a negative and statistically inconsequential impact, suggesting that in the near term, changes in leadership style do not significantly influence economic development. This could reflect short-term instability or inadequate leadership adjustments that do not yet affect economic success.

**Long-Run Results**

In the long term, the data reveal:

**1. Capital Flight:** The long-run coefficient for capital flight is positive but statistically insignificant, demonstrating that in the long term, capital flight does not significantly affect per capita real GDP. This contrasts with the short-term results and could imply that other variables, such as government policies or global economic conditions, may have a more substantial effect on long-term economic growth.

**2. Foreign Direct Investment:** The coefficient for FDI in the long run is negative and insignificant, suggesting that changes in foreign direct investment do not significantly impact Nigeria's long-term economic development. This study challenges the concept that FDI should positively affect economic development, showing that other forces might play a more vital role.

**3. Inflation:** The coefficient for inflation is negative but not significant, showing that inflation does not have a large effect on long-term economic development. This conclusion deviates with theoretical assumptions, which frequently indicate that inflation might negatively impact economic stability and growth.

**4. Leadership Style:** The long-run coefficient for leadership style is positive and statistically significant, with a value of 0.296211. This shows that excellent leadership greatly enhances per capita real GDP in the long run. Improved leadership aids to improved decision-making, resource allocation, and policy implementation, which collectively enable sustained economic growth. This result underscores the significance of good governance in allowing long-term economic development. Overall, the research reveals the subtle interaction of

capital flight, foreign direct investment, inflation, and leadership style on Nigeria's economic growth. While capital flight and foreign direct investment display uneven short- and long-term effects, leadership style emerges as a crucial determinant determining long-term economic success. The findings underscore the need for comprehensive actions to curb capital flight, stimulate foreign investment, and enhance governance to achieve sustainable economic growth in Nigeria.

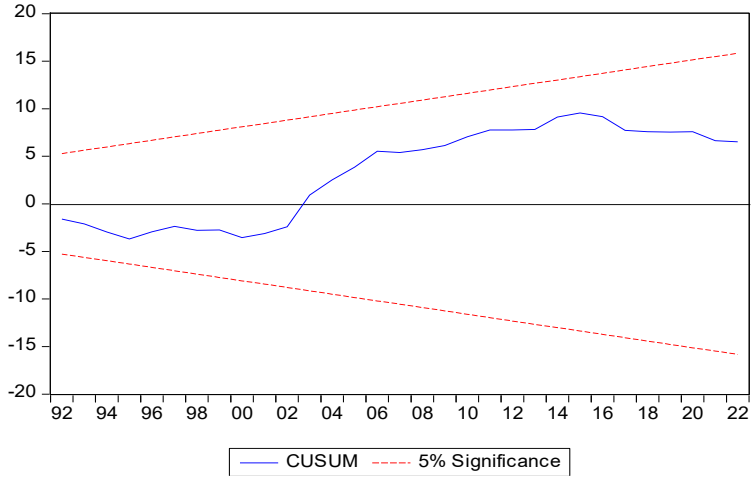
**Post Estimation Test**

| | F-statistic | Obs*R-squared | Scaled explained SS | Jacque Bera |
|---|---|---|---|---|
| Normality Test | | | | 1.200623(0.548641) |
| Serial Correlation Test | 1.155414 (0.5342) | 2.878310 (0.2371) | | |
| Heteroskedasticity Test | 0.614768(0.7394) | 4.753980(0.6900) | 3.362719(0.8495) | |

The normality of the residual of the regression is done to check the validity of the regression. It is significant because it assists the researcher in determining whether the assumptions supporting regression analysis hold true for the data gathered in the study. Given the value of the Jarque-Bera statistic of 1.200623 (0.548641), we argue that the residual is normally distributed.

This study used the Breusch-Godfrey Serial Correlation LM Test to evaluate the error term's serial independence. Considering the reality that the F-statistic value of 1.155414 and the observed R-squared value of 2.878310 are statistically insignificant with probability values of 0.3290 and 0.2371, we claim that there is no indication of serial correlation in the residual of the study, and we decide that the estimated equation is blue. This study used the Breusch-Pagan-Godfrey heteroskedasticity test to determine the equality of the residual variance. This test determines whether there is evidence of uneven variance in the residuals over multiple levels of the independent variables in regression analysis. Given the fact that the F statistic value of 0.614768, the Obs*R-squared value of 4.753980, the scaled explained SS value of 3.362719, and their probability values of 0.7394, 0.6900, and 0.8495 are greater than the 0.05 threshold, we conclude that there is evidence of homoskedasticity in the residual, and we conclude that the estimated equation is blue.

**Stability Test**




The cusum test was utilized to assess the stability of the regression. A thorough examination of the cusum line above demonstrates that it is within the acceptable margin. This suggests that the estimate is within the 95 percent confidence interval.

## Conclusion

The research explores the link between capital flight, foreign direct investment (FDI), inflation, and leadership style on Nigeria's economic growth, applying both short-run and long-run studies.

The results suggest a complicated relationship between these variables:

i. The positive and significant coefficients for lagged values of per capita GDP imply that previous economic success favorably impacts current economic growth, exhibiting economic inertia.

ii. In the short run, capital flight has a strong negative impact on economic growth, with a 1% rise in capital flight resulting to a 1.2% fall in per capita GDP. This emphasises the adverse effect of capital outflows on Nigeria's economic stability and growth. However, the long-term impact of capital flight is statistically negligible, suggesting that other variables could play a more major role over lengthy periods.

iii. The research demonstrates that FDI does not have a substantial short-term or long-term influence on economic growth in Nigeria. This study implies that while FDI may be advantageous in theory, its immediate or prolonged benefits on Nigeria's growth are limited, probably due to other prevailing economic conditions or structural concerns.

iv. The influence of inflation on economic growth is negative but statistically negligible in both the short and long term, which deviates from theoretical assumptions. This shows that inflation alone may not be a primary factor of Nigeria's economic development.

Effective leadership demonstrates a considerable positive influence on long-term economic growth, underscoring the importance of governance in creating sustainable development. Improved leadership promotes decision-making and resource allocation, ultimately boosting economic growth over the long run.

**Recommendations**

Arising from the findings, we make the following recommendations;

i. Government should implement policies that will promote economic stability and investor confidence. This involves ensuring political stability, anti-corruption strategies, and strong institution.
ii. Government should introduce and ensure capital control procedures to regulate and reduce capital flight. Monitor and limit capital outflows, this will assist to maintain financial resources within the country in order to stabilize the economy.
iii. Government should evolve policies that will make Nigeria business environment more attractive for Foreign Direct Investment by providing necessary infrastructure and incentives for investment.
iv. Strengthen and support the institutions in order to protect public assets and attract investor's confidence.

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