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Capital Flight and Poverty Reduction in Nigeria

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Abstract. The literature from development economics asserted that two major spillover effects of the prevalence of capital flight and low rate of investment in developing economies are the persistent increase in unemployment and absolute poverty. Since an increase in the poverty rate can be viewed in terms of forgone private and public investment in some poverty reducing programmes like education, health intervention and job creation. Thus, this study investigates the interplay between capital flight and poverty reduction in Nigeria using secondary data covering the period between 1981 and 2017. This study employs the Augmented Dickey Fuller (ADF) test; Philip Perron (PP) test; Kwiatkowski, Phillips, Schmidt and Shin's (KPSS) all forms of unit root tests; Johansen test for co-integration and Dynamic Ordinary Least Square (DOLS) for long run estimates. The study found that an increase in poverty level in the country would be preceded by raising capital flight coupled with increasing dependence ratio and decline in economic growth rate. In this scenario, the effect of a single digit economic growth is dissipated once the circle continues unabated. Consequently, this study recommends that the Federal Government of Nigeria through the relevant financial authorities should enforce regulation against illicit flow of capital and prosecute offenders. The Federal Government must be seen to support the agency efforts against illicit flow in the country.

Keywords: Capital flight; Poverty reduction; Augmented Dickey Fuller (ADF); Philip Perron (PP); Kwiatkowski, Phillips, Schmidt and Shin's (KPSS) unit root tests.

1. Introduction

Capital flight, whether regulated or unregulated has a damaging effect on any economy. It is one of the paradoxical challenge facing debt ridden developing countries like Nigeria. These economies are constantly canvassing for the operation and flow of foreign direct investment as well as engaging in external borrowing in order to augment domestic saving-investment gap. In spite of this, they are bedeviled with the prevalence of capital flight. Capital flight is regarded as dissaving which shrinks the stock of financial resources obtainable for useful domestic investment and spending, in so doing weaken the capacity for the growth and development of the domestic economy. Evidences abound that

a crucial constraint to economic development in Africa is the deficiency in investment financing which adversely affected the delivery of basic social services by the government [1].

In addition, the persistent low rate of investment in Nigeria compounded by the prevalence of capital flight in the country which have spillover effect on the other aspect of the economy such as raising unemployment rate, flow into poverty, poor standard of education, fiscal deficit, low infrastructures and deteriorating effect on resource allocation. Therefore, it is against this backdrop that, this study aims to examine the impact of agricultural shocks on food security in Nigeria. This study consists of five sections; section two that follows this introductory part contains some insights from the extant literature and theoretical framework. Section three explains the study's methodology; section four addresses the empirical results and interpretations of the study, and section five concludes the study by proposing measures that will help enhance reduce poverty in Nigeria via reducing capital flight.

2. Literature Review and Theoretical Framework

Poverty ordinarily stands for a situation whereby one cannot meet average requirements. In fact any situation under which one cannot afford a good meal at any given time is real poverty. Worse still of all, one is poor when one cannot plan for tomorrow because one has failed today. Specifically, [2] found inversely relationship between capital flight and poverty reduction while [3] found the contrary. Both study employed different proxy for poverty; [2] employed per capita consumption expenditure while [3] used discomfort index (unemployment and inflation). On the African continent, [4] found that capital flight compound the poverty rate in the continent.

Recently, a plethora of studies have concentrated on the determinants and impacts of capital flight majorly on the economic growth of Nigeria ([5]; [6]; [7]; [8]; [9]; [10]; [11]; [12]; [13]) without accounting for its influence on poverty reduction. Hence, there are still a few studies on the effect of capital flight on poverty reduction in Nigeria. Notably that poverty reduction has been the biggest concern of countries around the world, it was considered the goal of development policy, but rapid and continuous increase of this phenomenon is prevalence in the country. Therefore, this study examines the magnitude and effect of capital flight on poverty reduction in Nigeria.

This study is premised on the investment diversion theory of capital flight. This theory postulates that capital flight occurs due to two sets of factors namely the macroeconomic and political uncertainties in developing countries. The macroeconomic, political risks and the knowledge of the existence of better investment opportunities in developed countries, like high foreign interest rates, wide array of financial instruments, political and economic stability, favourable tax climate and secrecy of accounts. Some unscrupulous, corrupt leaders and bureaucrats usually siphon scarce capital resources from their countries to advanced countries in order to earn higher returns, safeguard their investment from instability, diversify their assets, or to enjoy confidentiality. These funds are, therefore, not available for investment at home, thereby widening the savings gap, constraining aggregate investment and limping economic growth [14]. The investment diversion thesis provides one of the well-known negative consequences of capital flight in the countries involved.

3. Methodology

The investment diversion theory identified instability in the macroeconomic and political systems in developing economies and opportunity cost of better investment alternatives outside homeland as the

key driver of capital flight. It explained that corrupt leaders of developing economies often siphoned scarce capital resources in their homeland economy to countries that offered alternative investment atmosphere. These are major drivers of capital flight in Nigeria with evidence of jobless economic growth and increase in wide spread poverty in the country. In particular, the inability of domestic firms to repay foreign debts may force them to lay off workers, inducing unemployment and a further raise poverty level in the country.

3.1 Model Specification

This study adopts the model by [15]. The model is expressed in its implicit form as presented in equation (1). However, the model estimated is expressed in equation (2);

POV = f (EG, ΔEG)
(1)

$$POV_t = a_0 + a_1 EGR_t + a_2 InALT_t + a_3 InPESC_t + a_4 DEPR_t + a_5 CAPFLT_t + O_t$$
(2)

Where POV =Poverty proxy with discomfort index; EGR= economic growth rate;
CAPFLT = Capital flight; ALT = Adult literacy proxy by post-secondary school enrolment; PESC = Public expenditure on social and community services; DEPR = Dependency ratio (percentage of working population);
$O_t = error\ term$; *In = log;* $a_0 = intercept;\ a_{1-5} = Parameter\ estimates$
$a_1; a_2$; $a_3 < 0$; $a_4 < 0$; $a_5 <$ or > 0.

3.2 Techniques for Analysis
This study employed descriptive and econometric technique to analyze secondary data that were sourced from [16] and [17] covering periods from 1986 to 2017. The econometric tests comprise of Augmented Dickey Fuller (ADF); Philip Perron (PP); Kwiatkowski, Phillips, Schmidt and Shin's (KPSS) unit root tests; Co-integration test and Dynamic Ordinary Least Square (DOLS).

4. Discussion of Results

The available data on poverty incidence in Nigeria shown in Table 1 revealed that the incidence of poverty in Nigeria is worrisome showing significant increase between 1980 to 1985, 1992 to 1996 and 2004 to 2010. Even with slight decrease in the incidence between 1985 to 1992 and 1996 to 2004, the population living in poverty was raising at increasing rate from 1980 to 2010.
Compounding the poverty incidence is the high age dependency ratio of over 87 percent between 1980 and 2010. The age dependency ratio is the ratio of the sum of the population aged 0-14 and the population aged 65 years and above to the population aged 15-64 years. This high dependency indicates the high dependency burden on the working population, as it assumed that the economically active proportion of the population will need to provide for the food, health, education and pension of the non-working population either directly through family support mechanism or indirectly through taxation. In fact, growing dependency ratio would adversely affect future economic growth, savings, consumption, taxation and pensions.

Table 1: Poverty Incidence, Age Dependency Ratio, Economic Growth and Capital Flight in Nigeria

YEARS	Poverty Incidence (%)	Estimated Population	Population in Poverty	Age Dependence ratio (% working age)	Economic growth rate (%)	Capital flight (₦' Billion)
1980	27.2	73,460,724.00	1,998,131,692.80	88.10	-13.1	12.4029408
1985	46.3	83,613,300.00	3,871,295,790.00	91.92	8.3	-3.3069019
1992	42.7	100,221,563.00	4,279,460,740.10	91.29	0.433	0.3175564
1996	65.6	110,732,904.00	7,264,078,502.40	88.82	4.99	-4.2183589
2004	54.4	135,393,616.00	7,365,412,710.40	86.69	33.73	0.1226106
2010	69	158,578,261.00	10,941,900,009.00	87.86	7.84	-8.6008494
Average	50.87	110,333,394.67	5,953,379,907.45	89.11	7.03	-0.5471671

Source: National Bureau of Statistics. HNLSS (2011); WDI (2015)

The large and increase population in poverty and dependency ratio even with appreciable economic growth indicate that the economic growth in Nigeria is jobless growth inbuilt with capital flight challenges. It is worthy of note that the flow of capital into the country concentrated in capital intensive sector without any substantial employment being generated. In fact, these capitals are either legally or illegally repatriated out of the economy. The motivation behind the use of different tests is to obtain reliable and consistent results.

As this present research employs time series data which is characteristically non-stationary for analysis, the data are tested for their time series properties so as to ensure that results obtained following model estimation are reliable and consistent. Stationarity and cointegration tests are therefore performed to test whether the variables are stationary and also given the stationary properties of the variables whether a long run relationship exists between the variables. The results of the aforementioned tests are presented in Table 2 and 3.

Table 2 shows that based on all techniques used for performing stationarity test, all the variables possess unit roots and became stationary only after they were first differenced except economic growth and adult literacy which were stationary without the need for differencing.

Table 2: Summary of Results of Stationary Tests

Variables	Test Techniques at 5 percent level					
	ADF	**Remark**	**PP**	**Remark**	**KPSS**	**Remark**
POV	-3.869(-2.948)	I(1)	-7.857(-2.948)	I(1)	0.401(0.146)	I(1)
EGR	-3.348(-2.946)	I(0)	-3.238(-2.946)	I(0)	0.156(0.146)	I(0)
LALT	-15.671(-3.540)	I(0)	-4.504(-2.946)	I(0)	0.212(0.146)	I(0)
LPESC	-9.399(-2.948)	I(1)	-9.522(-2.948)	I(1)	0.676(0.463)	I(1)
DEPR	-14.366(-3.563)	I(0)	-2.723(-2.648)	I(1)	0.153(0.146)	I(1)
CAPFLT	-3.094(-2.948)	I(0)	-6.061(-2.948)	I(1)	0.500(0.463)	I(1)

Source: Authors' Computation from Eviews, 2020. I(0) & I(1) represent order of integration at zero and 1. The variables in parenthesis represents critical values at 5 percent significance level.

Table 3: Co-integration Results

Max Rank	Trace Statistics	5% Critical values	P-value	Max-Eigen Statistic	5% Critical values	P-value
*None	118.2959	95.75366	0.0006**	48.61953	40.07757	0.0043**
At most 1	69.67635	69.81889	0.0513	29.15002	33.87687	0.1653
At most 2	40.52633	47.85613	0.2042	17.95902	27.58434	0.4986
At most 3	22.56732	29.79707	0.2680	16.59888	21.13162	0.1918
At most 4	5.968438	15.49471	0.6993	5.742080	14.26460	0.6465
At most 5	0.226358	3.841466	0.6342	0.226358	3.841466	0.6342

Source: Authors' Computation using Eviews, 2020.**Note**: ** indicates the co-integrating equation

Table 3 presents co-integration test results using Johansen co-integration test. The trace statistics and the Max-Eigen Statistics from the test indicated the presence of one co-integrating equation at 1 percent level of significance. The decision on the existence or otherwise of co integrated relations among the variables is determined by comparing the calculated Trace and Max-Eigen statistics with their critical values. A higher critical value connotes the presence of a co integrated series. The result of Table 3 supports the existence of at least one co integrated series. Hence the null hypothesis of the test of no Co-integration is rejected implying that co-integration exists between the variables. Thus, poverty rate, economic growth, adult literacy, public expenditure on social and community services, dependency ratio and capital flight exhibit long-run association between themselves.

The estimated results of DOLS presented in Table 4 revealed that all the explanatory variables were statistically significant at 5 percent except adult literacy and public expenditure on social and community services. Also, all the significant explanatory variables confirmed with their expected sign. The adjusted R-square of 0.704 indicated that the explanatory variables (economic growth, adult literacy, public expenditure on community and social services, dependency ratio and capital flight) explained 70.4 percent changes in discomfort index (that is poverty) in the long run and other explanatory variables not modeled explained 29.6 percent. Thus, the goodness of fit of this model is adequate with high predictive power.

Specifically, a 1percent increase in economic growth induces a 6.5percent decline in poverty rate in the long run. This suggests that increase in domestic productivity over time would reduce the unemployment and inflation rate which are composite of discomfort index (proxy for poverty rate). Furthermore, a 1percent increase in dependency ratio induces a 17.7percent increase in poverty in the

long run. This suggests that as the dependency ratio increase over time more individual falls into the poverty bracket. In addition, a 1percent raise in capital flight induces a 0.82percent increase in poverty rate in the long run. This suggests that the direct influence of capital flight on poverty reduction is less proportional and the transmission mechanism could be through economic growth channel. Since increase in capital flight would reduce economic growth, leading to loss of jobs which result in raise in dependency ratio, pushing more people into the poverty bracket (that is increase poverty rate).

Table 4: DOL Estimation Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EGR	-6.469637	1.307524	-4.94801	0.002
LALT	59.21035	29.98946	1.97437	0.089
LPESC	-0.374472	12.02893	-0.03113	0.976
DEPR	17.69680	1.862525	9.50151	0.000
CAPFLT	0.819409	0.274159	2.98881	0.020
C	2279.313	251.0716	9.07834	0.000
R-squared	0.916704			
Adj.R-squared	0.703914			

Source: Authors' Computation using Eviews, 2020.

5. Conclusion and Recommendations

This study had examined the influence of capital flight on poverty in Nigeria covering a period between 1981 and 2017 using the Dynamic Ordinary Least Square (DOLS). Dependency ratio, economic growth and capital flight were found to significantly influence poverty reduction in the country. The effect of both capital flight and dependency ratio were positive while economic growth was positive. This study concludes that rise in capital flight hinder efforts gear towards reducing poverty in the country.

The Federal Government of Nigeria through the relevant financial authorities should enforce regulation against illicit flow of capital and prosecute offenders. The federal government must be seen to support the agency efforts against illicit flow in the country. The federal government should also ensure that at least 50 percent domestication of the inputs, operations and management of all foreign companies and contracts operating in the country. Contracts to foreign countries' companies should be awards with the condition of having at least 50 percent of the management and operation staff and production inputs sourced locally and establishment of factories in the country rather than operating marketing outfits.

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