



FOREIGN FINANCIAL INFLOWS AND GDP PER CAPITA IN NIGERIA

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Abstract

The study empirically examined the relationship between foreign financial inflows and Gross Domestic Product Per Capita ((GDPPC) in Nigeria for the period of 1991 to 2022. Foreign financial inflows were disaggregated into foreign direct investment inflows (FDII), foreign portfolio investment inflows (FPII) and official development assistance (ODA) as well as public external debt (PEXD) and foreign remittances (REMIT). Data was sourced from Central Bank of Nigeria (CBN) Statistical Bulletin 2023, World Bank Data Base and Knomade 2023. The study made use of Auto Regressive Distributed Lag (ARDL) model approach to co-integration for the analysis. The results indicate no cointegration between foreign financial inflows and gross domestic product per capita in Nigeria. In the short-run, the results indicate that only public external debt has a significant relationship with Gross Domestic Product Per Capita. Foreign portfolio investment inflows show a negative but not significant relationship with Gross Domestic Product Per Capita. The results also revealed that foreign direct investment inflows and remittances have great potential to contribute significantly to GDPPC in the short run at less than 10% level of significance. It is recommended among others, that Nigerian government sustain the positive and significant relationship that exists between public external debt and gross domestic product per capita, review its foreign portfolio investment policies to uncover the reasons instead of contributing positively it shows a negative relationship and encourage more foreign direct investment and remittances inflows.

Keywords: Foreign financial inflows, GDP per capita, Foreign remittances, Nigeria, ARDL

Introduction

Finance is the pivot upon which all other economic activities revolve, and hence, capital is often considered as the central element of the process of economic development (Levine, 1997). In

addition, development economist, Lewis (1954), assert that capital is essential for growth and development, no matter the origin of the capital. It is based on this view that the capital deficient countries heavily resort to foreign capital as the primary means to achieving rapid economic growth and development (Chenery & Strout, 1966). Unfortunately, the growth and development experiences of many of these countries have not been very satisfactory; hence, they accumulate large external debts and are frequently confronted with the problem of debt servicing (Waheed, 2004). Foreign financial inflows constitute the major forms of resource transfer from the developed to the developing countries where they are usually found to be more productive (Williams, 2016 & Sobiech, 2019 as cited in Urama, Ezema, Obodoechi, Ukwueze, Eze, Mba, Amuka, Arazu, & Ibrahim, 2022).

Some reforms that have evolved in some developing nations, Nigeria inclusive, indicate that foreign financial inflows are needed for the economy to grow and develop (Ekwe & Inyama, 2014). These foreign financial inflows complement domestically sourced capital for their economic growth (Adeola, 2017). In Nigeria, foreign financial inflows have assisted in financing capital accumulation and the balance of payments processes, yet the effect of inflow of external capital into developing countries is still not very clearly understood (Kose, Prasad, Rogoff, & Wei, 2006). This inflow of foreign capital can be as foreign portfolio investment, foreign direct investment, foreign remittances, official development assistance (ODA), and foreign loans (Adekunle & Sulaimon, 2018). These and other macroeconomic variables have different levels of impact in the economy. The Central Bank of Nigeria Statistical Bulletin (2021) provides evidence to show that the quantum of foreign financial inflows into the Nigeria economy have increased due to the Nigerian capital market standardization over the years. However, for the past two decades, Nigeria witnessed a quasi-metamorphosis in the composition of private financial inflows. Foreign portfolio investment appears to have taken the centre stage as its share of private capital flows to Nigeria has increased (Monogbe, Okereke & Ifionu, 2020). As at 2007, foreign portfolio investments had surpassed every other type of capital inflow into Nigeria with official flows and bank loans declining in real terms (Monogbe, Okereke & Ifionu, 2020 as cited in Onwuteaka, Echekeba, Amakor & Ananwude, 2023). The inflow of foreign capital helps essentially in facilitating growth particularly in countries that attracted them (Akinlo, 2004; Durham, 2004; Agbloyor, Abor, Adjasi & Yawson, 2014). Foreign financial inflows (FCIs) are the key sources of fund, up-to-date technology and innovations from industrialised to developing countries and this helps to quicken the rate of economic development of such countries (Sinha, Majra, Hutchins & Saxena, 2018; Azam, Shahbaz, Kyophilavong & Abbas, 2016 & Fambon, 2013).

Economic development is the major target of government in every economy and in achieving this; investment capital must be readily available (Oladapo, 2017 & Quati, Abudul & Rasheed, 2018).

Due to the capital deficiency nature of most developing nations, leveraging on foreign capital becomes an option to accelerate economic development. However, through empirical assessment, literature reveals that many scholars have researched on the relationship between foreign financial inflows and economic development, but there still exists inherent disagreements among the previous scholars on the relationship between foreign financial inflows and economic development.

On one hand, Chude and Chude (2023); Ndiweni and Bonga-Bonga (2021); Okoro, Nzotta and Alajekwu (2020); Rodionova, Yakubovskiy and Kyfak (2020) and Abiodu and Kehinde (2020); discovered that foreign financial inflows have positive and significant effect on economic development. While on the other hand, Onwuteaka, Echekeba, Amakor and Ananwude (2023); Araoye (2021); Anidiobu, Okolie, Onyia and Onwumere (2020), and Chukwu Ubah and Ezeaku, (2020) posited that foreign financial inflows have no significant effect on economic development. These divergent results and lack of consensus among the scholars therefore indicates that there are ongoing debates on the true nature and relationship between foreign financial inflows and economic development.

Foreign Capital Inflows

Foreign financial inflows in this study consist of foreign direct investment inflow, foreign portfolio investment inflow, foreign aids (official development assistance), foreign remittances and public external debt (external borrowing). Similarly, gross domestic product per capita (GDPPC) represent the measure of the effect of foreign financial inflows on Nigeria

Foreign financial inflows according to Williams (2016), Sobiech (2019), and Urama, Ezema, Obodoechi, Ukwueze, Eze, Mba, Amuka, Arazu and Ibrahim (2022), “are major forms of resource transfer from the developed to the developing countries.

Foreign Direct Investment

Foreign direct investment as explained by Nwankwo, Ademola. and Kehinde (2013), “represents a veritable source of foreign exchange and technology transfer, especially to a developing economy like Nigeria. It can be analysed in terms of inflow of new equity capital, re-invested earning (unremitted profit), trade and supplier’s credit, net inflow of borrowing and other obligations from the parent company or its affiliates’. Organisation for Economic Cooperation and Development (OECD, 2008) defined foreign direct investment as “the owning of at least 10% of equity interest in the affiliate firm which gives these equity owners voting rights thus giving them some control and authority in the process of managerial decision making”. Similarly, World Bank (1996) defines foreign direct investment as “an investment made to acquire a lasting management interest in a business enterprise operating in a country other than that of the investor”. Foreign direct investment

(FDI), according to Thirwall (1994) “refers to investment by multinational corporations (MNCs) with headquarters in developed countries”. Foreign direct investment is often commonly made in open economy that offers a skilled workforce and above-average growth prospects for the investor, as opposed to tightly regulated economies. Foreign direct investment most often does not only involve capital investment, but also include provision of technology and management as well. The main feature of foreign direct investment is that it establishes either effective control of, or at least substantial influence over, the decision - making of a foreign business.

Foreign Portfolio Investment

Foreign portfolio investment, according to Chen and Scott (2024) “consists of securities and other financial assets held by investors in another country. It does not provide the investor with direct ownership of a company’s assets and is relatively liquid depending on the volatility of the market” The main distinguishing feature between foreign direct investment and foreign portfolio investment is that foreign portfolio investment is the term used to describe short term investment in shares and bonds in host country and most of the times this is speculative in nature. Another important distinctive feature of foreign portfolio investment is the lack of control of the affiliate firm, because of which it is often categorized as an indirect investment (Jones & Wren, 2016).

Foreign Aids

Official development assistance (ODA) is another name for Foreign Aids. This is usually given to countries in form of donation as a way of supporting them in times of economic hardship or natural disaster or developmental purposes.

Foreign Remittances

This refers to the different kinds of transfer received from abroad in cash or otherwise that resident or non- resident send to his or her home country. It is mostly the money that is transferred by foreign workers (migrants) to their families or other individuals in their home countries.

Public External Debt

This refers to funds borrowed from sources outside the home country of the borrower, which in most cases, is from developed countries, as it is a common practice for governments to borrow money from foreign entities such as International Monetary Fund (IMF).

Theoretical Review

Some relevant theories propounded by different authors in this area of study (foreign financial inflows and gross domestic product per capita) include:

Dependency Theory (Baran, 1957)

This theory according to Monogbe, Okereke and Ogunbiyi (2021), posits that developed countries influence less developed countries through their economic power. 2.1.2 Technological Transfer Theory (Charles, 1986): This theory states that developing nations have the resources for development, but lacks the capacity to transform these resources to accelerate sustainable level of desired economic development.

Mac Dougal – Kemp hypothesis (Mac Dougal, 1958 & Kemp, 1964): This is one of the earliest theories of financial inflows according to Chude and Chude (2023), which posit that price of capital being equal to its marginal productivity, allows capital to move freely from a capital surplus country to a capital scarce country, and by so doing, the marginal productivity of capital tends to equalise between the two countries.

Economic Development Theory (Adam Smith, 1776): Economic development theory as contained in “The Wealth of Nations” by Adam Smith (1776) emphasised on accumulation of capital to help accelerate the pace of development in an economy which foreign financial inflows has been identified as one of the drivers that ensure growth and development in an economy, as it is important for capital realisation and long-term growth.

Empirical Review

Evbaziegber, Ogiemudia, and Umubanmwun (2024), ascertained the influence of foreign capital inflow on Anglophone and Francophone countries’ economic growth in Africa, using foreign capital components of Foreign Direct Investment (FDI), Foreign Portfolio Investment (FPI), Foreign Debt Stock (FDS), Personal Remittance (PRT) and Official Development Assistance (ODA) as explanatory variables and economic growth represented by changes in Real Gross Domestic Product (RGDP). They selected Ten (10) African countries from the period of 1981 to 2022. The panel data estimation techniques and the Hausman test were used in the analysis of data. Their findings revealed specifically that: Foreign Direct Investment (FDI) and Foreign Portfolio Investment (FPI) had negative influence on economic growth in both blocks in Africa. But that Personal Remittance and Official Development Assistance (ODA) contributed more to economic growth in countries in both blocks in Africa during the period under consideration.

Prior to this time, Chude and Chude (2023), had examined the effect of international financial inflows on economic growth in Nigeria, from 1981 to 2021 using the error correction model. Their study revealed that foreign aid had a positive impact and was statistically significant. According to Chude and Chude, foreign direct investment was also positive and statistically significant. Workers’ remittance shows negative and not statistically significant effect on economic growth in Nigeria.

Similarly, Onwuteaka, Echekeba, Amakor and Ananwude (2023), assessed the effect of international capital flows on economic development of Nigeria. Specifically, the effect of foreign direct investment, foreign portfolio investment and external borrowing as well as diaspora remittances on human development index was investigated. Covering a thirty-six year period - from 1986 to 2021, they used Auto-Regressive Distributed Lag (ARDL) and Granger Causality techniques to analyse the data. Their result revealed that foreign direct investment, foreign portfolio investment, external borrowing, and diaspora remittances had no significant effect on human development index as a measure of economic development in Nigeria.

Also, Djalab and Said (2023), examined the effect of international capital flows on economic growth in Algeria for the period, 1990 to 2018. Their study relied on four core channels of international capital flows which included foreign direct investment (FDI), official development assistance (ODA), personal remittances (REM), and external debt stock (EXTDS) into Algeria. They employed the Auto Regressive Distributed Lag (ARDL) model approach to cointegration in the data analysis. Their result revealed that all channels of international capital flows were not statistically significant in the short and long-run except the foreign direct investment (FDI).

In the same vein, Ustraz (2023) assessed the nexus between foreign financial inflows volatility, financial development and economic growth in Sub – Saharan Africa for the period of 1990 to 2017. The study employed the dynamic panel ordinary least square technique and the results revealed that financial inflows and volatility had varying effects on the different sectors of the economy.

Again, Madani, Medjenah and Yessaad (2023) assessed the impact of foreign capital flows on economic growth in Algeria using foreign direct investment, external loans, foreign aid, and remittances from migrants, as independent variables on real GDP as a dependent variable in Algeria for the period of 1990–2021. Their study employed the Autoregressive Distributed Lag (ARDL) time series regression model for the data analysis. According to them, the study revealed the existence of a long-run relationship between the selected economic variables and their impact on real GDP in Algeria, both in the short and long run.

Earlier, Akarara and Osueibai (2022) had examined the effect of foreign financial inflows on economic performance in Nigeria between 1981 and 2020. According to them, the study used the Ordinary Least Squares technique to analyse data from the World Bank's time series database, before being submitted to further empirical testing using a system-wise Johansen Co-integration Test, ECM, and the Granger Causality Test, and that the analysis discovered a negative and negligible link between Foreign Direct Investment (FDI) and Gross Domestic Product (GDP).

Urama, Ezema, Obodoechi, Ukwueze, Eze, Mba, Amuka, Arazu and Ibrahim (2022) empirically investigated the effect of foreign financial inflows and some selected macroeconomic variables on economic growth in Nigeria. They applied the autoregressive distributed lag (ARDL) model on time

series data for the period, 1981-2020. Their findings indicated that foreign financial inflows (FDI, Gross fixed capital formation and personal remittances) had significant impact on real gross domestic product in Nigeria, and recommended that government should continue to fine tune bilateral trade and investment agreements with other nations of the world.

Araoye (2021) had investigated the influence of economic development on the foreign capital investment inflow in Nigeria. The study employed the time series secondary data covering the period between 1990 and 2019 obtained from the Central Bank of Nigeria Statistical Bulletin, Nigeria Stock Exchange fact sheet, Journals libraries and Internet, and that he analysed the data with the aid of Vector Error Correction Estimates and Granger causality test. The findings of the study revealed that gross domestic product (GDP) and market capitalisation (MCAP) had positive but insignificant influence on foreign capital investment inflow in Nigeria, and that the granger causality result confirmed evidence of bi-directional causality movement between gross domestic product (GDP) and foreign capital investment inflow (FCII) in Nigeria.

Oke and Ruth (2021) examined the effect of foreign capital flow on economic growth in Nigeria from 1999 to 2020. The independent variable used was foreign capital flows measured by foreign debt inflows and foreign remittance inflows, foreign medical services and education and foreign direct investment outflows, while the dependent variable was economic growth measured by real gross domestic product per capita growth rate, and that the data was collected from CBN Statistical Bulletin, World Bank Data Bank, and the International Monetary Fund. They adopted the Ordinary Least Square regression techniques and reported that foreign debt inflows, foreign medical services and education exerted a significant negative effect on economic growth while, foreign remittance inflows exerted a significant positive effect on economic growth in Nigeria. They posit that foreign direct investment outflows though exerted a positive effect on economic growth that it was not statistically significant.

Nguyen, Pham, Tran and Nguyen (2021) examined the impact of foreign financial inflows on economic growth in Vietnam, and employed secondary time-series data set for the period of 1995–2018 to determine the impact of foreign direct investment (FDI), foreign aid, foreign loans, and exports on economic growth in Vietnam by using a linear approach, and that the data was collected from the World Bank and relevant agencies in Vietnam. Their results showed that FDI (net inflows), foreign aid, foreign loans, exports, and GDP (current), had a positive effect at a 1% significance level on economic growth and that an increase in FDI (net inflows), foreign aid, foreign loans, and exports had beneficial effects on the Vietnamese economy during the period of study.

Monogbe, Okereke and Ogunbiyi (2021) examined the extent to which Foreign Financial inflows promote Economic Development in Nigeria using time series data sourced from the World Bank Data base and the Central Bank of Nigeria Statistical Bulletin for the period of 1980 to 2019. The

study decomposed foreign financial inflows into Foreign Direct Investment (FDI), Foreign Portfolio Investment (FPI), Foreign Aids (FAS), External Borrowing (EXTB) and Personal Remittance (PRT), while Misery Index was used as proxy for economic development. The study employed Auto Regressive Distributed Lag and Granger Causality Test, and concluded that of the five decomposed measure of Foreign Financial inflows, only two (Foreign Direct Investment and External Borrowing) significantly influenced Economic Development in Nigeria.

Anidiobu, Okolie, Onyia and Onwumere (2020) conducted an empirical investigation on the ECOWAS sub region, considering the contribution of foreign capital surge on its growth. They employed a panel data that covered the period of 1986 to 2017 (32 years). External debt and its servicing costs were proxies for international financial inflows while nation output level of the ECOWAS region was used as a measure for growth. The study employed panel least square regression and hausman test; and found that international financial inflows in the form of public debt does not contribute to growth in ECOWAS region.

Ndiweni and Bonga-Bonga (2021) assessed the relationship between international financial inflows and economic growth in developing economies for the period of 1996 to 2019. According to them (2021) the study employed methods of threshold regression to examine whether capital flows had different effects in developing economies with weak institutions as compared to those with good institutional infrastructure. Their findings showed that a threshold effect existed in the financial inflows and growth nexus, and that the results obtained demonstrated that the impact of financial inflows on economic growth was positive and significant when a defined threshold level of institutional quality was exceeded. In addition, at any point below that threshold, the level of the financial inflows-growth relationship appeared to be non-existent.

Methodology

The longitudinal time series cross-sectional research design, a type of Quasi-experimental research design was adopted in this study. This study is structured with gross domestic product per capita as the dependent variable while foreign financial flows (foreign direct investment, foreign portfolio investment, external debt, and remittances) is the independent variable.

Sources of Data

Secondary data was used in this study. Yearly time series data from 1991 to 2022 were obtained for Real Gross Domestic Product (RGDP), Public External Debt (PEXD) and Foreign Direct Investment Inflow (FDII) as well as Foreign Portfolio Investment Inflow (FPII), and Official Development Assistance (ODA) from the Central Bank of Nigeria Statistical Bulletin 2022, while Remittances (REMIT) was sourced from World Bank data and <https://www.knomad.org/> 2023.

Method of Data Analysis

The Autoregressive Distributed Lag (ARDL) model approach to cointegration developed by Pesaran and Shin (1999) was adopted in this study. The Autoregressive Distributed Lag (ARDL) Model Approach to Cointegration is a least squares regression containing lags of the dependent and explanatory variables. The ARDL was chosen for the analysis because it allows the researcher to combine regressors that are I(1) or I(0) and still yield consistent estimates of the long run coefficients that are asymptotically normal (Pesaran, Shin, and Smith (2001). Again, this technique according to Harris (2003) as cited in Aboutorabi (2012) “provides unbiased estimates of the long run model and valid t-statistics even when some of the regressors are endogenous”.

To illustrate the ARDL modeling approach, the following simple model is considered:

$$y_t = \alpha + \beta x_t + \delta z_t + e_t, \dots \dots \dots 1$$

where y_t , x_t and z_t are three different time series; e_t is a vector of stochastic error terms; and α and β are the parameters. For the above equation, the error correction version of the ARDL model is given by:

$$\Delta y_t = \alpha + \sum_{t=1}^p \beta_1 \Delta y_{t-1} + \sum_{t=1}^p \delta_1 \Delta x_{t-1} + \sum_{t=1}^p \varepsilon_1 \Delta z_{t-1} + \lambda_1 y_{t-1} + \lambda_2 x_{t-1} + \lambda_3 z_{t-1} + u_1 \dots \dots \dots 2$$

In the equation above β , δ and e capture the short run dynamics of the model while λ represents the long run relationship.

Interpretation of ARDL

(a) Bounds Tests for the Existence of Cointegration

The first step is to determine if the variables are cointegrated and this is done using Bounds Test of cointegration. The Bounds Test displays the output of the Bounds Test of cointegration, displaying the F-statistic and the 10%, 5%, 2.5% and 1% bounds for both I(0) and I(1) cases.

Hypothesis: H_0 : No cointegration

Decision criteria: F-statistic $< I(0)$ accept H_0 ; $I(0) < \text{F-statistic} < I(1)$ area of indecision.

F-statistic $> I(1)$ reject H_0 .

(b) Cointegration and Long Run Form

If the variables are found to be cointegrated, the Cointegration and Long Run Form test follows.

This displays the cointegration form of the estimated ARDL model, along with the long-run coefficients and error correction representation for the ARDL Model. The error correction

representation for the ARDL Model result indicates the speed of adjustment back to the long run equilibrium after a short run shock. It is also indicative of any causal effects running from the predictor variables to the dependent variable.

Model Specification

In this study, the model tested is presented in regression form below.

The functional relationship is shown below in equation 1

$$CGDPPC = f(CFDII, CFPII, CODA, CPEXD, CREMIT) \dots\dots\dots 1$$

The econometric equation based on the above functional relation is presented in equation 2 below.

$$CGDPPC_t = \alpha_0 + \beta_1 CFDII_t + \beta_2 CFPII_t + \beta_3 CODA_t + \beta_4 CPEXD_t + \beta_5 CREMIT_t + \mu_t \dots\dots\dots 2$$

Apriori expectations, $\beta_1 > 0$, $\beta_2 > 0$, $\beta_3 > 0$, $\beta_4 > 0$, $\beta_5 > 0$

Where;

CGDPPC = Change in gross domestic product per capita

CFDII = Change in foreign direct investment inflow

CFPII = Change in foreign portfolio investment inflow

CODA = Change in official development assistance

CPEXD = Change in public external debt

CREMIT = Change in remittances

μ_t = Error Term/Stochastic variable

α_0 = Constant

$\beta_1, \beta_2, \beta_3, \beta_4$ and β_5 are parameters to be estimated

Results and Discussion

Descriptive Statistics

Table 4.1: Statistical Description of CRGDP, CGDPPC, CFDII, CFPII, CODA, CPEXD and CREMIT

STATISTIC	CGDPPC	CFDII	CFPII	CODA	CPEXD	CREMIT
Mean	28774.56	-2630.220	60601.12	2.79E+12	575113.7	267934.5
Median	23777.94	13620.34	-87.10550	2.93E+10	211411.2	46985.15
Maximum	100890.1	500875.3	3778732.	9.98E+13	3683197.	1745427.

Minimum	845.3523	-1434635.	-3089099.	-1.64E+14	-2243611.	-1133304.
Std. Dev.	25247.41	346691.9	1183418.	3.91E+13	1259966.	576783.7
Skewness	1.062217	-2.108297	0.602479	-1.641268	0.398368	0.996298
Kurtosis	3.663150	10.35922	6.534479	13.19200	4.017419	4.807173
Jarque-Bera	6.603983	95.91711	18.59262	152.8692	2.226571	9.648419
Probability	0.036810	0.000000	0.000092	0.000000	0.328478	0.008033
Sum	920786.0	-84167.04	1939236.	8.94E+13	18403637	8573904.
Sum Sq. Dev.	1.98E+10	3.73E+12	4.34E+13	4.74E+28	4.92E+13	1.03E+13
Observations	32	32	32	32	32	32

Source: Researcher's Desk 2025 (E-Views 12 output)

The descriptive statistics results above in table 4.2 indicate as follows:

1. Skewness

From table 4.2 above, CFDII and CODA are negatively skewed while CGDPPC, CFPII, CPEXD and CREMIT are positively skewed.

2. Kurtosis

Following the results of the descriptive statistics, table 4.1 above show that CPEXD have distribution that approximate that of a normal distribution. On the other hand, CGDPPC, CFDII and CFPII, as well as CODA and CREMIT have leptokurtic distributions with Jarque-Bera test statistic probability less than 0.05.

Unit Root Tests

Unit root test was conducted to ensure that all the variables satisfy the underlying assumption of the ARDL model before proceeding to the estimation stage. One of such assumptions is that the variables must be a mixture of $I(0)$ and $I(1)$ and the dependent variable should be $I(1)$. The results are presented in table 4.3 below.

Table 4.2: Summary of Unit root test results

Variable	$\sim I(d)$	Stationarity	Level of Significance
CGDPPC	$I(1)$	First difference	5%
CFDII	$I(0)$	Level	5%
CFPII	$I(1)$	First difference	5%
CODA	$I(0)$	Level	5%
CPEXD	$I(1)$	First difference	5%
CREMIT	$I(0)$	Level	5%

Source: Researcher's Desk (2025)

Following the results of the unit root tests in table 4.2 above which show a mixture of I(0) and I(1) variables, the study estimate the long run relationship between foreign financial inflows and changes in gross domestic product per capita employing the Auto-Regressive Distributed Lag (ARDL) model approach to cointegration developed by Pesaran, Shin and Smith (2001). The estimated results are shown in table 4.4 below.

Table 4.3: ARDL result

Dependent Variable: CGDPPC

Selected Model: ARDL(1, 2, 2, 2, 0, 1)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
CGDPPC(-1)	0.670127	0.111201	6.026249	0.0000
CFDII	-0.016303	0.009893	-1.647856	0.1189
CFDII(-1)	0.030318	0.014047	2.158375	0.0464
CFDII(-2)	0.046635	0.012914	3.611082	0.0023
CFPII	0.000516	0.003052	0.169046	0.8679
CFPII(-1)	-0.007264	0.003980	-1.825175	0.0867
CFPII(-2)	0.006140	0.003561	1.724285	0.1039
CODA	1.93E-10	6.77E-11	2.852286	0.0115
CODA(-1)	-2.17E-11	5.95E-11	-0.365437	0.7196
CODA(-2)	9.10E-11	5.77E-11	1.577712	0.1342
CPEXD	0.006518	0.002048	3.182533	0.0058
CREMIT	0.004685	0.004912	0.953851	0.3543
CREMIT(-1)	0.006790	0.005417	1.253402	0.2281
C	2617.708	3483.683	0.751420	0.4633

R-squared 0.904119, Adjusted R-squared 0.826215, F-statistic11.60562, Prob(F-statistic) 0.000009 and Durbin-Watson stat 2.882132

Source: Researcher's Desk 2025 (eviews12output)

In the above estimated ARDL model results (table 4.3), CGDPPC was specified as the dependent variable. The iteration evaluated a total of 243 models from which ARDL(1, 2, 2, 2, 0, 1) was selected following Akaike information criterion (AIC). Below in figure 4.1 is presented the top 20 models out of 243 models considered.

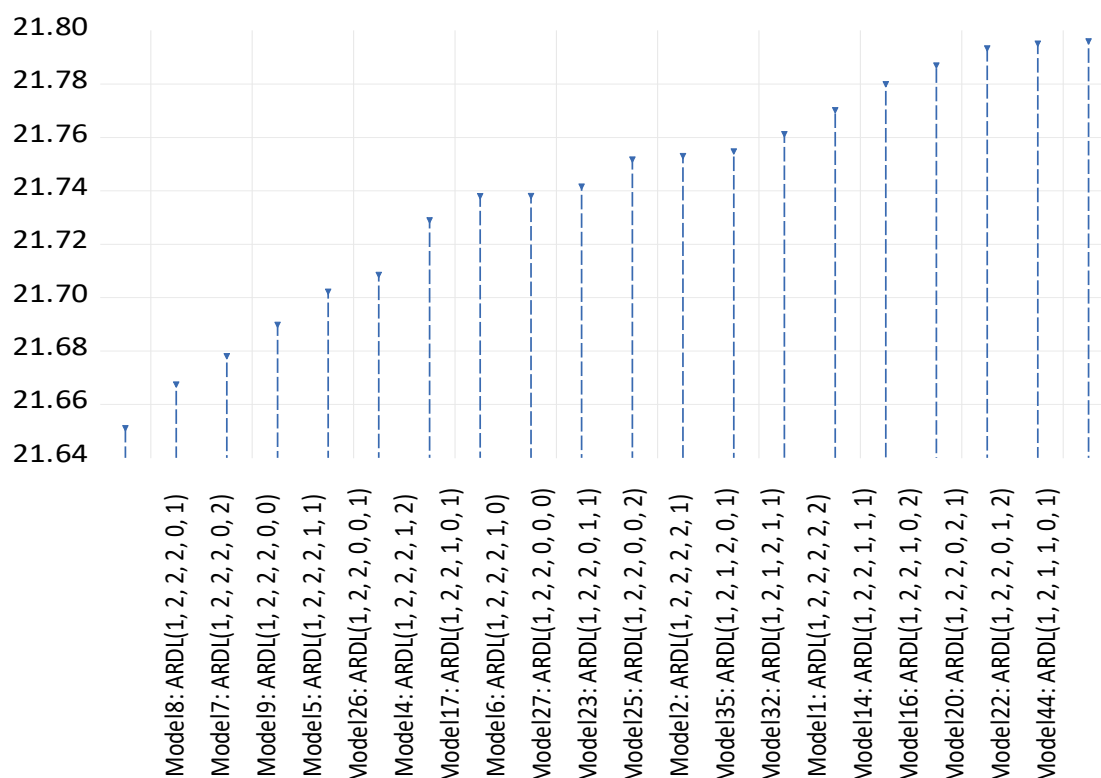


Figure 4.1 Akaike Information Criteria (top 20 models)

Source: Researcher's Desk 2025 (eviews12 output)

The results of the ARDL estimated equation shown in table 4.4 above apart, the interpretation of the ARDL model comes from the ARDL Bounds Test for Cointegration of variables. The results are shown below on table 4.4.

Table 4.4: Bounds test of cointegration

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Significance	I(0)	I(1)
			Asymptotic: n=1000	
F-statistic	3.128797	10%	2.08	3
K	5	5%	2.39	3.38
		2.5%	2.7	3.73
		1%	3.06	4.15

Source: Researcher's Desk 2025 (eviews12 output)

The decision rule states that if the test statistic i.e. F-statistic value is less than the I(0) value at 5% level of significance, the null hypothesis of no long-run relationship will be accepted but if F-statistic

value is greater than $I(1)$ value at 5% level of significance, the null hypothesis will be rejected and when $I(0) < F\text{-statistic} < I(1)$ defines the area of indecision.

The results above on table 4.4 with F-statistic value of 3.128797 being greater than the $I(0)$ value of 2.39 and less than $I(1)$ value of 3.38 at 5% level of significance defines an area of indecision. Thus, the study could neither accept nor reject the null hypothesis of no cointegration between foreign financial inflows and gross domestic product per capita in Nigeria.

The study further examined the short-run relationship between foreign financial inflows and gross domestic product per capita and results are summarized below.

Table 4.5 below presents the result of the individual test of hypothesis between foreign financial inflows and the gross domestic product per capita. The results show that foreign financial inflows in their current state proxy by CFDII, CFPII and CODA as well as CREMIT have no significant relationship with gross domestic product per capita as confirmed by the individual t-statistic probabilities of the variables greater than 5%. But only CPEXD has a t-statistic probability value of less than 5%, thereby confirming a positive and significant relationship with gross domestic product per capita. However, all the variables except CFPII have positive relationships with GDPPC. Of important observation is the value of the t-statistic probability of foreign direct investment inflow at 0.0655 and remittances at 0.0860. This implies that these two variables have great potential to contribute significantly to GDPPC in the short run at 10% level of significance. The study therefore indicates that all the variables of foreign financial inflows except CPEXD have no significant relationship with gross domestic product per capita for the period under review.

Table 4.5: short-run statistics

Levels Equation

Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CFDII	0.183858	0.092976	1.977481	0.0655
CFPII	-0.001844	0.022466	0.082088	0.9356
CODA	7.95E-10	4.77E-10	1.668937	0.1146
CPEXD	0.019760	0.007214	2.739191	0.0146
CREMIT	0.034788	0.019014	1.829584	0.0860
C	7935.497	9177.842	0.864637	0.4000

EC = CGDPPC - (0.1839*CFDII - 0.0018*CFPII + 0.0000*CODA + 0.0198
 *CPEXD + 0.0348*CREMIT + 7935.4970)

Source: Researcher's Desk 2025 (eviews12 output)

Conclusion

The findings of this study revealed that foreign financial inflows in their current state, represented by change in foreign direct investment inflows (CFDII), change in foreign portfolio investment inflows (CFPII) and change in official development assistance (CODA), as well as change in foreign remittances (CREMIT) have no significant relationship with economic development represented by change in gross domestic product per capita, except for change in public external debt (CPEXD) which has a positive and significant relationship with CGPPC. Hence, the study concludes by stating that foreign financial inflows have a mixed relationship with economic development in Nigeria, and recommends that, going forward, the government should promote foreign financial inflows to improve the welfare of the citizens. Also, critical attention should be paid to foreign portfolio investment to uncover the reasons instead of contributing positively it shows a negative relationship.

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