External Capital Inflows and Job Creation in A Capital-Deficient Economy: The Case Of Nigeria

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Abstract

Unemployment is a serious problem in Nigeria. Capital is needed to increase labor employment. But due to the deficiency of domestic capital in Nigeria, it is necessary to attract external capital for better job creation in the country. This study therefore examined the impact of external capital inflows on unemployment in Nigeria. Specifically, the study examined the impact of foreign direct investment, foreign portfolio investment and migrant workers' remittances on unemployment in Nigeria. The study applied Johansen co-integration test and error correction mechanism (ECM) on annual time series data covering the period 1986 to 2019. The results showed that foreign direct investment (FDI) and foreign portfolio investment (FPI) inflows strongly aggravate unemployment in Nigeria. On the other hand, remittances (RMT) strongly contribute to job creation in Nigeria while gross fixed capital formation insignificantly reduces unemployment in Nigeria. The main recommendation, inter alia, is that there should be a general improvement in the country's macroeconomic environment so as to attract the inflows of more external capital and also stabilize them for improved job creation in the country.

Keyboard: External capital, Unemployment, Johnansen, cointegration

1. INTRODUCTION

Nigeria as the most populous nation in Africa is blessed with enormous human resources. But this huge human resource potential has not been productively utilized because of the deficiency of capital which is an important co-operant factor in the production process (Babasanya, 2018; Central Bank of Nigeria, 2010). Consequently, the country has been experiencing high and rising levels of unemployment of labour over the years, (Njoku & Ihungba, 2011). To reduce unemployment therefore, capital formation is necessary. Capital formation leads to increase in national output, market expansion and ultimately, creation of employment opportunities (Anyanwu, Oyefusi, Oaikhenan & Dimowo, 1997).

To generate employment opportunities, Nigeria need to improve her process of capital formation. But the accumulation of capital depends on savings out of current income (Ahuja, 2013). However, due to the general prevalence of low income and consequently, low savings among the people, it will be difficult to generate large enough capital required for reasonable levels of labour employment. The main reason for low income is that, the oil sector, which is the mainstay of the economy, is vulnerable to both internal and external shocks and therefore, unstable. Besides, the oil sector is characterized by a unique mode of operation and privileges. This makes it difficult for increases in the amount of oil resources exported to be reflected in the peoplesø income, (Robinson, 2003). It is therefore necessary to attract the inflow of external capital to augment domestic capital for sustainable job creation.

External capital plays a crucial role in the process of job creation. In the face of domestic capital deficiency, less developed countries depend on external resources for job creation (Chorn and Siek, 2017). Therefore, the need for external capital as an engine of growth and employment generation in developing countries can never be over stressed. Chorn and Siek (2017) õopine that foreign capital inflow is an essential avenue through which modern technology, knowledge, skills and innovations of developed countries are transferred to less developed countries.ö This helps in accelerating their process of job creation.

Based on the foregoing, this study examines the impact of external capital, inflows on unemployment in Nigeria. In specific terms, the study examines the impact of foreign direct investment, foreign portfolio investment and migrant workersø remittances on unemployment in Nigeria.

2. CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

2.1 Conceptual Framework

2.1.1 The Concept of External Capital

Capital in economic parlance is used to denote any produced means of production (Deweth, 2009). External capital therefore refers to the capital which originates from outside the domestic economy. For the purpose of this study, external capital includes foreign direct investment, foreign portfolio investment and migrant workersø remittances.

Foreign direct investment refers to a condition when foreign investors acquire productive facilities in another country (the host country) and manages it or take part in its management (Akpakpan, 1999). Foreign portfolio investment takes place when foreign entities such as banks, insurance companies, private individuals etc acquire securities, bank deposits, and/or give private loans in the financial markets of other countries (Akpakpan, 1999; Ahuja, 2013). The international monetary fund (2003) defines remittances as that portion of international migrant workersøearnings sent home from the country of employment to the country of origin.

2.1.2   The Concept of Unemployment

Ohale and Onyema (2002) define labour unemployment as the number of persons within the working age bracket who are willing and able to work at the prevailing wage rate but cannot find any job. The unemployment rate is defined as the number of persons considered unemployed expressed as a percentage of the total labour force.

2.1.3   Overview of Nigeria's Unemployment Situation

Unemployment of labour is a global challenge, but it is worse in developing countries including Nigeria. In Nigeria, unemployment is not a recent challenge as the national unemployment rate rose from 4.3 percent in 1970 to 6.4 percent in 1980. It fluctuated around 6.0 percent until 1987 when it rose to 7.0 percent (Akintoye, 2003).

The Structural Adjustment Programme (SAP) was introduced by the Federal Government of Nigeria in 1986 to address several macroeconomic problems facing the country including unemployment (Anyanwu, 1993). Due to the benefits of SAP, the unemployment rate declined from 7.0% in 1987 to as low as 1.9 percent in 1995. Thereafter, it rose to 2.8 percent in 1996, and has been growing worse since, hovering between 2.8 percent and 13.1 percent between 1996 and 2000 respectively (Njoku & Ihungba, 2011).

Data from the Central Bank of Nigeria show that the unemployment rate increased from 13.1 percent in 2000 to 14.8 percent in 2003. It however dropped to 11.9 percent and 10.6 percent in 2005 and 2007 respectively. The unemployment rate declined to 10.0percent and 7.8 percent in 2013 and 2014 respectively. By 2016 when the country plunged into recession, the annual unemployment rate was 14.2 percent. Youth unemployment reached 17.6 million people (about 22 percent of the labour force) in the second quarter of 2016 (Ministry of Budget and National Planning, 2017). The national unemployment rate was 18.8% in 2017. It rose to 23.10% in the third quarter of 2018 (National Bureau of Statistics, 2018).

2.2   Theoretical Framework

2.2.1   The Solow Neoclassical Growth Model

One important aspect of the neoclassical free-market orientation is that opening up of domestic economies attracts additional domestic and foreign investments which help in increasing the rate of capital formation. The Solow Neoclassical growth model, for which Robert M. Solow of MIT won the Nobel Prize, represents a key contribution to the neoclassical growth theory (Todaro & Smith, 2011).

The Solow model of economic growth which was formulated as an alternative to the Harrod-Domar growth model, considered a two-factor continuous production function with capital and labour as determinants of output. Besides, Solow added technology as an exogenously determined factor to the production function. Thus, according to Solow, economic growth results from three factors: increases in labour quantity and quality (through population growth and education), increases in capital (through saving and investment), and technological progress (Todaro & Smith, 2001; Ahuja, 2013).

Formally, following Ahuja (2013) specification, the Solow fundamental growth equation can be derived starting with the basic identity:

$$S = sY \quad \text{............................ 2.2.1}$$

where S = total national savings, Y = national income or output, and s = saving ratio or propensity to save. Equation 2.2.1 states that national saving (S) is a proportion(s) of national output (Y).

Given that output is produced with capital and labour, technological possibilities are represented by the constant-return-to-scale production function:

$$Y = F(K, L) \quad \text{............................ 2.2.2}$$

where Y = national output, K = the stock of capital and L = amount of labour.

Substituting equation 2.2.2 into equation 2.2.1, we have:

$$sY = sF(K, L) \quad \text{............................ 2.2.3}$$

Since in neoclassical theory, planned investment is equal to planned saving, net addition to the stock of capital (i.e, K), which is equal to investment (I), can be derived by subtracting depreciation of capital during a given period from the planned saving. That is,

$$K = I = sY – D \quad \text{............................ 2.2.4}$$

where K = net addition to the stock of capital, I = investment and D = depreciation.

Given that depreciation takes place at a certain percentage of the existing capital stock, the total depreciation can be expressed as:

$$D = dk \quad \text{............................ 2.2.5}$$

Putting dk for D in equation 2.2.4, we have:

$$K = sY – dk$$

$$\text{or} \quad sY = K + dk \quad \text{............................ 2.2.6}$$

If we divide and multiply the first term of the RHS of equation 2.2.6 by K, we have:

$$sY = K.\frac{\Delta K}{K} + dk \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad 2.2.7$$

Recall that for the steady state equilibrium, growth of capital (i.e, $\frac{\Delta K}{K}$) must be equal to the growth rate of labour (i.e, $\frac{\Delta L}{L}$), so that capital per worker and hence, income per head remain constant. If we denote $\frac{dL}{L}$ by n, then in steady state $\frac{\Delta K}{K} = n$

If we put n for $\frac{\Delta K}{K}$ in equation 2.2.7, we have:

$$sY = k.n + dk \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad .. 2.2.8$$

Factorizing the RHS of equation 2.2.8, we have

$$sY = (n+d)K \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad .. 2.2.9$$

Equation 2.2.9 is the fundamental growth equation of the Solow neoclassical growth model. It states the steady state equilibrium when capital per worker and output per head remains constant even though labour or population is increasing. Hence, to attain steady state equilibrium growth, capital must be increasing equal to (n+d)k. Thus, (n+d)k represents the required investment (i.e, change in the capital stock or net addition to the stock of capital) which ensures steady state when capital and income must be increasing at the same rate as labour force or population (Ahuja, 2013; Jhingan, 2016).

2.2.2 The Two-Gap Model

Hollis Chenery and other writers developed the two-gap model of economic development. Chenery and his co-writers (Chenery & Strout, 1956; Chenery & Bruno, 1962; Chenery & Adelman, 1966) explain that the development process depends on accumulation of external capital. They brought in external capital on the ground that savings from foreign countries in the form of capital inflows to the local economy can be used by developing countries to augment the domestic savings and foreign exchange gaps (Ibrahim & Akinbobola, 2017). The two gaps (i.e, savings and foreign exchange gaps) can be expressed in terms of the national income accounting identities as:

$$E ó Y \quad I ó S \quad M ó F í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad í \quad 2.2.10$$

where E = national expenditure, Y = national output, I = investment, S = savings, M = imports, X = exports, and F = net capital inflow. (I-S) is the domestic savings gap while (M-X) is the foreign exchange gap (Jhingan, 2016).

Hence, the two-gap model helps in explaining the extent to which foreign resources are required to fill the savings gap and the foreign exchange gap so that the goal of achieving sustainable growth and development of the less developed countries can be actualized (Jhingan, 2016).

2.3 Empirical Literature Review

Some of the studies conducted on the relationship between foreign capital and unemployment are reviewed in this section.

Anthony-Orji, Orji, Ogbuabor and Nwosu (2018) studied the impact of foreign direct investment, foreign portfolio investment and remittances on unemployment in Nigeria for the period 1977; Q1 to 2013; Q4. The autoregressive distributed lag approach was used. The findings showed that foreign direct investment and foreign portfolio investment have negative effects on unemployment while remittances have positive impact on unemployment.

Kurtovic, Siljkovic and Milanovic (2015) studied the nexus between FDI and unemployment in the Western Balkan countries using annual panel data from 1998 to 2012. Using panel data techniques, the outcome indicated that FDI reduces unemployment.

In Nigeria, Idowu and Ying (2013) analyzed the impact of FDI on agricultural output and employment generation for the period 1980 to 2007. Through the application of the vector autoregressive (VAR) model, the result indicated that FDI has significant direct impact on employment generation.

Nelson, Ekokeme, Okoyan and Dumani (2018) studied the effects of FDI on unemployment in Nigeria. Applying cointegration test on annual data from 1980 to 2015, the outcome of the study showed a weak inverse relationship between FDI and unemployment.

Applying Johansen Cointegration test on annual data from 1999 to 2016, Babasanya (2018) investigated the impact of FDI on job creation in Nigeria. The outcome indicated that FDI has a significant direct impact on job creation in Nigeria.

Onuoha, Okoro and Okere (2018) studied the impact of foreign portfolio investment on macroeconomic variables in West Africa. Applying system generalized method of moment on annual panel data for the period 1980 to 2016, the outcome of the study showed that portfolio equity has weak negative impact on unemployment while portfolio bond has weak positive impact on unemployment.

Elekwa, Aniebo and Ogu (2016) explored the causal link between foreign portfolio investment and employment in Nigeria for the 1980 to 2014. The outcome of the study indicated a long-run positive and significant impact of foreign portfolio investment on employment in Nigeria.

Azizi (2018) examined the effects of migrant workersø remittances on human capital and the supply of labour in 122 developing countries selected from East Asia, the Pacific, Europe and Central Asia, Latin America and the Caribbean, the Middle East and North Africa, Sub-Saharan Africa, and South Asia. Using panel data techniques on panel data from 1990 to 2015, the findings showed that remittances reduce female labour force participation rate but has no significant effect on male labor supply.

Salman (2016) examined the impact of remittances on self-employment status of remittance recipient households in Nigeria. The study applied switching probit model, treatment-effect

model, and propensity score matching technique on data from Migration and Remittances Household Survey conducted by the World Bank in 2009 and 2010. The results showed that remittances decrease the likelihood of recipients being self-employed.

Onimisi (2014) studied the effect of FDI on job creation in Nigeria using annual data from 2002 to 2012. Through the application of ordinary least squares (OLS) technique, the findings showed that FDI strongly aggravates unemployment in Nigeria.

2.3.1 Evaluation of the Empirical Literature Reviewed

From the empirical literature on the external capital ó unemployment nexus, it is observed that much attention has not been paid to the phenomenon in Nigeria. Thus, there is paucity of empirical evidence on the topic in Nigeria. It is also observed from the available empirical evidence that it is only Anthony-Orji, Orji, Ogbubor & Nwosu (2018) that incorporates the three components of foreign capital inflows (i.e., FDI, FPI and remittances) in a single study. Other studies concentrated on only one aspect of foreign capital (i.e., either FDI or FPI or remittances).

Furthermore, the most recent studies conducted on the relationship between external capital inflows and unemployment in Nigeria are Babasanya (2018) and Onuoha, Okoro and Okere (2018) whose data periods covered 1999 to 2016 and 1980 to 2016 respectively. Our argument is that, between 2016 and 2019, significant changes must have taken place both in the volume of foreign capital inflows and the situation of unemployment in the country. It is therefore necessary to study the phenomenon with recent empirical data on the relevant variables. This study therefore is an attempt to fill the gaps identified above.

3.1 METHODOLOGY

3.1 Model Specification

Our model is specified based on the Solow neoclassical growth model and the model employed by Anthony-Orji et al., (2018). However, the adopted models were slightly modified to accommodate the variables of the present study.

The mathematical from of the model is specified as:

UNPR = f(FDI, FPI, RMT, GFCF)   í í í í í í í í í í í í í í 3.1

where UNPR = Unemployment Rate,

      FDI   = Foreign Direct Investment,

      FPI   = Foreign Portfolio Investment,

      RMT   = Migrant Workersø Remittances,

      GFCF = Gross Fixed Capital Formation

(a proxy for domestic capital), and F = functionality.

An econometric transformation of the functional relation in equation 3.1, is expressed as:

UNPR = $_0$ + $_1$FDIt + $_2$FPIt + $_3$RMTt + $_4$GFCFt + Ut í í í í í í 3.2

where $_0$ is the regression intercept term, $_1$, $_2$, $_3$, and $_4$ are the coefficients of the parameter estimates, and U is the error term. UNPR is the dependent variable while FDI, FPI, RMT and GFCF are the explanatory variables. All other variables are as earlier defined.

Transforming equation 3.2 into logarithm form, we have:

UNPRt = $_0$ + $_1$logFDIt + $_2$logFPIt + $_3$logRMTt + $_4$logGFCFt + Ut 3.3

Where log is the natural logarithm of the variables and all the variables are as earlier defined.

Apriori Theoretical Expectations

Based on economic theory, we expect the following signs of the coefficients of the parameter estimates.

UNPRt = $_0$ + $_1$logFDIt + $_2$logFPIt + $_3$logRMTt + $_4$logGFCFt + Ut

$$(_0 < 0, \quad _1 < 0, \quad _2 < 0, \quad _3 < 0, \quad _4 < 0)$$

The above signs imply that we expect negative relationship between each of the explanatory variables and unemployment. That is, an increase in the value of each of the explanatory variables will bring about a reduction in unemployment rate.

3.2   Nature and Sources of Data

Annual time-series data on the variables specified in the model were used for the study. The data which covered the period 1986 to 2019 were obtained from secondary sources, namely the Central Bank of Nigeria Annual Statistical Bulletin for 2019, Central Bank of Nigeria Annual Reports and Financial Statements (various years), and World Bank Development Indicators (various years).

3.3   Techniques of Data Estimation

The ordinary least squares (OLS) technique was used to estimate the specified model. However, due to the problems of non-stationarity and spurious regression associated with time-series analysis, the OLS technique was preceded by unit root test. The essence of the unit root test is to check if the series are stationary or not and also to determine their order of integration.

To conduct the unit root test, the Augmented Dickey-Fuller (ADF) unit root test was used. In ADF unit root test, we test for the null hypothesis that the series has unit root (i.e., the series is non-stationary) against the alternative hypothesis of no unit root in the series (i.e., the series is stationary).

Based on the result of the ADF unit root test, the Johansen co-integration test was used to test whether there exists long-run (equilibrium) relationships or not among the variables in the

model. The essence of the co-integration test is to avoid the problem of spurious regression results. Johansen (1988) and Johansen and Juselius (1990) suggested this test which is based on the vector autoregressive (VAR) model. The test starts with a p-lag VAR model specified as follows:

$$Y_t = A_1 y_{t-1} + A_2 y_{t-2} + \text{---} + Ap y_{t-p} + \text{...} \quad \text{..... 3.4}$$

where Y_t is K-vector of non-stationary variables that are generally integrated of order one (i.e, I(I)), A_1, A_2 and AP are matrices of coefficients to be estimated and $_t$ is a K-vector of innovations.

To determine the number of cointegrating vectors, two test statistics are used. These are the Trace test and the maximum Eigen test.

The error correction model (ECM) is used to reconcile any disequilibrium in the short-run to long-run equilibrium trend (Gujarati and Porter, 2009). The ECM was therefore estimated to measure the speed with which any disequilibrium in the short-run is adjusted to long-run equilibrium trend.

4. RESULTS AND DISCUSSION

4.1 Descriptive Statistics

The descriptive statistic result is presented in table 4.1 below

Table 4.1: Descriptive Statistics Result

	UNPR	LOGFDI	LOGFPI	LOGRMT	LOGCFCF
Mean	10.06182	11.6462	9.795316	11.28294	105.0779
Mean	10.00000	12.33137	10.51975	11.86443	118.5700
Maximum	23.90000	14.12320	15.45394	15.99845	306.1900
Minimum	1.900000	6.463029	3.912023	2.397895	3.320000
Std. Dev.	6.320313	2.193182	2.918294	4.270365	89.29979
Skewness	0.50032	-0-.647722	-0.156612	-0.850804	0.636753
Kurtosis	2.329687	2.314226	1.950437	2.543767	2.647786
Jarque-Bera	1.994580	2.954135	1.649577	4.267476	2.400576
Probability	0.368878	0.228306	0.438328	0.118394	0.301107
Sum	332.0400	384.3054	323.2454	372.3369	3467.570
Sum Sq.	1278.283	153.9215	153.9215	583.0524	255182.5
Observation	34	34	34	34	34

Source: Author's Computation from Eview 10.0

4.2   Augmented Dickey-Fuller (ADF) Unit Root Test Result

The result of the ADF unit root test is presented in table 4.2.

Table 4.2: ADF Unit Root Test Result

Variable	ADF Statistic (At Level)	Critical Value (5%)	ADF Statistic (At 1st Difference)	Critical Value (5%)	Order of Integration
UNPR	-0916318	-2.957110	-4353153	-2.960411	1 (1)
LOG(FDI)	-2.636594	-2.957110	-8.215843	-2.960411	1 (1)
LOG (FPI)	-1.585092	-2.957110	-7.144458	-2.960411	1 (1)
LOG(RMT)	-2.207424	-2.957110	-6.247957	-2.960411	1 (1)
LOG(GFCF)	-1.136297	-2.957110	-5335208	-2.960411	1 (1)

Source: Author's Computation from E-view 10.0

The stationarity test in table 4.2 above shows that none of the series are stationary at levels. The series are however stationary after taking their first difference. Hence, all the series are integrated of order one (i.e., I(I)).

4.3   Johansen Cointegration Test Result

The result of the unrestricted Johansen cointegration test is presented in table 4.3 below. The standard test statistics used in interpreting the result are the trace statistic and maximum eigen statistic.

Table 4.3: "Johansen Cointegration Test Result

Hypothesized No. of CE (s)	Eigen Value	Trace	0.05 Critical Value	Prob. **
None*	0.687213	73.71702	69.81889	0.0236
At most 1	0.491433	43.82606	47.85613	0.1137
At most 2	0.407808	22.86513	29.79707	0.2528
At most 3	0.186838	6.623477	15.49471	0.6218
At most 4	0.006812	0.211908	3.841466	0.6453
Hypothesized No. CE (s)	Eigen Value	Max-Eigen Statistics	0.05 Critical Value	Prob.**
None*	0.618721	39.89095	33.87687	0.0139
At most 1	0.491433	20.96093	27.58434	0.2786
At most 2	0.407808	16.24165	21.131162	0.2111
At most 3	0.186838	16.411571	14.26460	0.5610
At most 4	0.006812	0.211906	3.841466	0.6453

Source: Author's Computation from E-view 10.0

Trace test indicates I cointegrating equation at the 0.05 level.

Max-eigen test indicates I cointegrating equation at the 0.05 level.

* denotes rejection of the null hypothesis at the 0.05 level

** Mackinnon-Haug-Michelis (1999) p-values

From the Johansen cointegration test result in table 4.3, both the trace and the max-eigen tests indicate I cointegrating equation each. The implication of this result is that the Johansen cointegration test indicates the presence of long-run (equilibrium) relationship among the variables in the model.

4.4   Error Correction Model (ECM) Result

The error correction model was first done with an over parameterized model and then with a parsimonious model. The result of the parsimonious ECM model is presented in table 4.4.

Table 4.4: ECM Result
Dependent Variable: D (UNPR)
Method: Least Squares
Sample (Adjusted): 1989 ó 2018

Variable	Coefficient	Std. Error	T-statistics	Prob.
C	0.892121	0.667578	1.336359	0.1972
D(UNPR(-1))	0.552873	0.170008	3.252044	0.6644
D(UNPR(-2))	0.522747	0.185037	2.825090	0.0108
DLOG(FDI)	2.565101	0.136398	2.257220	0.0360
DLOG(FDI(-2))	2.24832	0.987172	2.275982	0.0346
DLOG(FPI)	0.620646	0.301031	2.028515	0.0508
DLOG(FPI(-2))	-1.05948	0.327316	-3.237083	0.0043
DLOG(RMT)	-1994023	0.965598	-2.065065	0.0528
DLOG(RMT(-2))	-1.298609	0.801193	-1.620844	0.1215
DLOG(GFCF(-2))	-0.045973	0.30443	-1.510148	0.1475
ECM(-1)	-0.875522	0.190490	-4.596163	0.0002
R - squared = 0.677228; Adj. R^2 = 0.507347				
F - Statistic = 3.986500; Prob. (F-statistic) = 0.004653				
Durbin ó Waston Statistic = 1.95835				

Source: Authorø Computation from E-view 10.0

From the error correction model result in table 4.4, the ECM variable (i.e., ECM (-1)) is correctly signed. Hence, its coefficient turned up with the expected negative sign. It is also statistically significant at the 0.05 level of significance. The ECM(-1) variable is -0.875522 indicating a speed of adjustment of about 87 percent from any disequilibrium in the short-run to long-run equilibrium values within a year.

4.5   Post Estimation Tests Result

The results of the post-estimation tests are presented in table 4.5 below

Table 4.5: Post Estimation Tests Result

Test	Value	Prob.	Decision
Linearity (Ramsey Rest) Test t ó Statistic E-Statistic	0.828043 0.685655	0.4179 0.4179	Accept (Model correctly specified)
Breusch-Godfrey Lm Test F-Statistic	0.587661	0.5393	Accept (No Autocorrelation)
Heterosoedasticity Test F- Statistic	0.587661	0.7093	Accept (Residual have constant variance)
Normality (JarqueBera) Test F-Statistic	1.324997	0.5156	Accept (Data normally distributed)

Source: Authorøs Computation from E-view 10.0

The purpose of the post estimation tests was to check if the basic assumptions underlying the classical linear regression model (CLRM) are satisfied.ö From the results in table 4.5 above, the linearity, no serial correlation, homoscedasticity and normality assumptions of the CLRM are satisfied.

4.6   Discussion of Findings

The Johansen cointegration test showed that there exists long-run (equilibrium) relationship among the variables in the model.

The estimated short-run (ECM) regression result showed that lagged values of unemployment (i.e., UNPR(-1) and UNPR(-2) have significant positive relationship with current level of unemployment. This implies that unemployment levels in the past significantly worsen the current level of unemployment in Nigeria. Similarly, current value of foreign direct investment and its value lagged by two periods (i.e., FDI (-2)) have strong positive relationship with unemployment. This implies that FDI inflows in the current and previous periods strongly worsen the unemployment situation in Nigeria.

Foreign portfolio investment in the current period has significant positive effect on unemployment. The implication is that FPI inflows in the current period strongly worsen the unemployment situation in Nigeria. However, foreign portfolio investment lagged by two periods (i.e., FPI(-2)) has strong negative impact on unemployment. This implies that FPI inflows in the past significantly reduced unemployment in Nigeria.

The current value of remittances inflows has significant negative effect on unemployment. Hence, remittances inflows in the current period strongly reduce unemployment in Nigeria. On the other hand, remittances lagged by two periods (i.e., RMT (-2)) reduces unemployment but in an insignificant manner. Also, gross fixed capital formation lagged by two periods (i.e., GFCF (-2)) makes a weak contribution to job creation in Nigeria. The poor performance of foreign direct investment on job creation in Nigeria may be attributed to the fact that the foreign businesses

operating in the country employed labour displacing techniques of production. It could also be attributed to the fact that, during the period under investigation, the country's macroeconomic environment was not favorable enough to attract and sustain large enough inflows of FDI to create jobs for Nigerians. The general state of insecurity in the country could also be responsible for the poor performance of FDI on job creation. This line of reasoning is supported by the empirical findings of Osemene, Kolawole and Olanpekele (2017) which concludes that macroeconomic variables like GDP growth, export, inflation and interest rates have adverse effects on the inflows of FDI in Nigeria. Similarly, the same argument (i.e., poor macroeconomic environment) could be the reason for the poor performance of foreign portfolio investment. Recall that foreign portfolio investment is highly susceptible to capital volatility. Hence, the least sign of unfavorable investment climate may cause the withdrawal of foreign portfolio capital invested in the country's financial markets.

From the ECM result in table 4.4, the R-squared (R2) is 0.677228. This implies that the explanatory variables jointly account for about 67 percent of the total variations in the dependent variable. The F-statistics is 3.986500 with probability (F-Statistics) of 0.0004653. This shows that the overall regression model is statistically significant at the 0.05 level of significance. Finally, the Durbin-Watson (d*) statistic is 1.958935. This is greater than the critical the lower limit (du) of 1.07 at n = 30 and K1 = 5. This shows that the model is not affected by the problem of auto-correlation.

Our findings on the impact of FDI on unemployment in Nigeria support the findings of Onimisi (2014).ö On the relationship between foreign portfolio investment and unemployment, our findings support the findings of Onuoha, Okoro and Okere (2018). For remittances and unemployment nexus, our findings support the findings of Babasanya (2018).

5   CONCLUSIONS AND POLICY RECOMMENDATIONS

5.1   Conclusions

This study examined the impact of external capital inflows (i.e., foreign direct investment, foreign portfolio investment and migrant workers' remittances) on job creation in Nigeria. The following conclusions were drawn from the findings of the study:

  i.   Foreign direct investment inflows strongly worsen unemployment situation in Nigeria.
 ii.   Foreign portfolio investment inflows significantly aggravate the unemployment situation in Nigeria.
iii.   Remittances inflows significantly contribute to job creation in Nigeria.

5.2   Policy Recommendations

Based on our findings, we therefore suggest the following recommendations for policy:

  i.   To attract sustained inflows of external capital, there is the need for a general improvement in the country's macroeconomic environment. This can be achieved by implementing sound fiscal, monetary and exchange rate policies to reduce inflation, liberalize the foreign exchange market, and improve the ease of doing business in the

country. Also, development of infrastructure in the areas of transportation, power and energy, tourism, etc will help to improve the general business environment in the country.

ii. There is the need to reduce insecurity in the country so as to discourage the outflow or divestment of foreign investments. In this context, the fight against insurgency in the Northeast should be intensified. Also, militancy in the Niger Delta, kidnapping and armed banditry in several parts of the country should be curtailed to enhance the confidence of foreign investors in our economy.

iii. To stabilize foreign portfolio investment and reduce its vulnerability to capital volatility, the government and financial system regulatory authorities should develop and implement sound policies that will enhance better performance of both the money and capital markets. To this end, policies that will deepen the financial system and promote sound and healthy banking system are necessary.

iv. To further improve the performance of remittances on job creation, the government should create an institutional platform through which recipients of remittances can be trained and encouraged to invest what they receive in productive ventures.

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