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## EFFECTS OF EXCHANGE RATE ON JOB CREATION IN NIGERIA

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### ABSTRACT

Job Creation has been the source of social and human engineering towards economic development. Creation of Jobs remains crucial in eradicating social menace, thereby bringing strong connection between macro and micro economic space. The study used annual observation time frame of 2000 to 2018, to reveal effects of exchange rates on job creation. A developing country (Nigeria) was selected as a case study due to its high level of jobless growth, inspite of currency depreciation of Naira against Dollar. The study employed the unit root test, co-integration test, error correction model and the granger causality test. The study found out that exchange rate has positive influence on job creation, though insignificant in the short run, but with 80% error correction model, the variables have the capacity of being significant at the long run. It was further seen that a unidirectional causality exists among exchange rate and job creation. In light of the findings, the study recommended for concerted

efforts by stakeholders as regards policies and programmes that provide enabling environment for stable exchange rate and sustainable foreign investment inflow into Nigeria that will lead to increased trend of Job Creation.

**Keywords:** Exchange Rate, Job Creation, Employment, Foreign Direct Investment and Foreign Portfolio Investment.

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## INTRODUCTION

Generally, lack of job creation has negative economic and long-run social effects especially on developing nations (ILO, 2019). Effects of jobless growth or unemployment on the society and even business organization is such that the basis of the functioning firms is dependent on average demand by the labour market as well as the consumer demand for both goods and services (Michaillat and Saez, 2015). Therefore, displacement of workers or a heavy impact on labour market, especially by price or exchange rate variation, and changes in economy, can negatively affect consumption and cause businesses to fail due to consumption that is positively related to disposable income (Liu, Idrees, Satti and Nazeer, 2015). Exchange rates, after bringing down the fixed exchange rate system, (Bretton Woods) have had various changes (Ehsani, Khanalipour and Abbasi 2009).

Challenging issue in emerging countries like Nigeria after World War two has been on issue of changes in exchange rate and job destructions. It is evident that the effects of exchange rate fluctuations on job creation vary from one country to another. The ability to create jobs in any economy is very imperative, if you consider its macro-economic performance (Abdel – Moneim, 2015). Creation of Jobs is so vital and very integral to economic development and welfare of the citizens (Hull, 2009). According to UNDP (2015) Job creation composes the basis on which the foundation of human development is formed. Meanwhile, Foreign Direct Investment inflows appear as main catalyst to job creation. It a major source to increase productivity in relation to import substitution and export expansion, which will create earning capacity, massive jobs, raising employment, promoting the growth of huge investment more than other sectors within the economy, more so widen and have more efficient linkage among different sectors (Fakiyesi, 2005).

Nigeria's economy has been under pressure with the phenomenon of jobless growth, becoming a growing problem due to insecurity, poor technology and innovation. Incessant structural unemployment has major negative long run impact on both individuals and organizations at large. Over the years, fiscal and monetary policy implementation, with micro and macroeconomic management has not yielded the desired fruit, for the past decades, as it has produced jobless growth. Foreign Investments is expected to play a critical role on job creation as exchange rate remains attractive to investors in conducive business environment. Exchange rate depreciation is expected to bring about much money in the hands of foreign investors willing to invest in a given economy.

Guitan (1976) and Dornbusch (1988), reveals that the good thing about currency devaluation is that it leads to promoting trade balance which will depends on switching demand in good direction, more so on the capacity of home economy to meet more demand by supplying more goods. Nigeria with good population size like China has exchange rate as at today N360 to \$1, which is expected to be a magnetic sweetener to foreign investors, which ordinarily should lead to creation of more jobs. The major challenge here is to know the significance of this exchange

rate depreciation, whether it has attracted the desired foreign investments to create more jobs in Nigeria business environment. In addition, exchange rate depreciation is expected to increase the preference of foreign investors, who will increase foreign investments that will likely increase job creation which will determine good economic performance.

To examine effects of exchange rate, there is limited empirical study conducted in Nigeria, however, existing evidence around the world economies has conflicting results which shows the relationship between appreciation and depreciation of currency and job creation.

Ngandu (2008) shows that exchange rate appreciation promotes job growth while results by Yokoyama, Higa and Kawaguchi (2015) show that appreciation of Yen decreases jobs or employment of exporting firms. Therefore, these conflicting results among other empirical results from various countries, calls further research on this topic. It is very crucial to examine effects of exchange rate on job creation in Nigeria.

### **LITERATURE REVIEW**

Exchange rate can be defined as the value of one currency when compared with another, the price at which one country exchanges her currency with customers of another country (Okonkwo, Osakwe & Nwadike 2021; Mordi 2006). This exchange rate can be seen as depreciation, appreciation, devaluation and revaluation (Dornbusch, Fisher and Startz, 2011). During devaluation, price of foreign currencies under a fixed rate regime is officially increased. Thus, devaluation means that foreign investors have much money to establish companies, industries, businesses which attracts or create more job opportunity for employment, whereas on revaluation, reverse is the case. On the other hand, depreciation or appreciation refers to a change in price of foreign currencies under flexible exchange rates. While currency depreciation is when it becomes less expensive in terms of foreign currencies, under floating rates, currency appreciation is when it becomes more expensive in terms of foreign currencies (Dornbusch, Fisher and Startz, 2011). If the domestic currency is depreciated, it shows its value in terms of other currencies is low, meaning that foreign investors will spend less with small quantity of their currencies to establish businesses for job creation here.

According to Obi, Oniore and Nnadi (2016), the policies of exchange rate has undergone many changes which has developed from a fixed parity in 1960, during British Pound Sterling, while US Dollar was included in the parity exchange, after devaluation of the Pound Sterling. Eze and Okpala (2014) revealed in 1972 that due to emergence of a stronger US Dollar, the parity exchange with British Pound Sterling was suspended. However, in 1973 due to devaluation of US Dollar, Nigeria went back to fixed parity with British Pound Sterling. Meanwhile, to minimize the effects of devaluation of single currency, Nigeria tied her currency to both Pound and Dollar. In 1970s, due to increase in price of oil in the international market, there were constant appreciations of the nominal exchange rate against US Dollar. This led to much reliance on importation, thereby leading to capital flight, and discouraging non-oil exports which affected the balance of payment negatively leading to depletion of external reserves.

According to Osaka, Mashe, and Adamgbe (2003), due to much importation, marginal propensity to import increased, this affected other sectors, especially the agricultural sector. During 1978, the naira was pegged to a basket of 12 currencies, which are major trading partners, but that 1978 policy was abrogated to favour quoting the naira against the dollar. As stated by Obi, Oniore and Nnadi (2016) existing exchange rate policies before 1986, supported over-valuation of Naira, however, to solve that problem, deregulation was done in September

that year, under the Structural Adjustment Programme. During that period, there were introduction of Second-tier Foreign Exchange Market (SFEM) to encourage implementation of Structural Adjustment Programme. Meanwhile, the essence of SFEM, was to introduce a mechanism for exchange rate determination and allocation which will bring stability and balance of payment equilibrium.

Mordi (2006) stated that the main reason of SFEM is to achieve a realistic naira exchange rate, by market forces of demand and supply, efficient allocation of scarce resources, encouraging non-oil export, also encourage foreign exchange inflow and discourage more outflow, thereby removing currency trafficking by wiping out unofficial parallel market, which lead to improved Balance of Payments. Obadan (2006) stated that in a bid to achieve exchange rate policies, several modifications were made in order to achieve the objectives of SFEM, through exchange rate policies, many modifications have been made, which includes, from Foreign Exchange Market (FEM) to Autonomous Foreign Exchange Market (AFEM), then to Dutch Action System and to wholesale Dutch Auction System. Foreign Exchange Market came in because of challenges encountered during First and Second tier market rates, during July 1987. Thereafter, Bureau De Change came in 1989 to enlarge the scope of FEM.

Obadan (1994) reveals that, fixed exchange rate system was re-introduced IN 1994, meanwhile in 1995; the policy of reversal of Autonomous Foreign Exchange Market (AFEM) was reversed. But in 1999, Interbank Foreign Exchange Market (IFEM) was re-introduced, bringing the merger of the official exchange rate. However, the high demand for foreign exchange and constant depletion of the external reserves led to re-introduction of Dutch Auction System (DAS) in 2002.

To further deepen the market, and evolve a realistic exchange rate, wholesale DAS was introduced in 2006. As at today, exchange rate in Nigeria is still associated with fully managed and freely floating regimes. This study consequently considers to what extent exchange rate affected job creation in Nigeria has.

### **Exchange Rate and Job Creation**

Klein and Shambaugh (2012) consider that rate of exchange is very crucial price factor in any economy. Whereas Gourinchas (1999) looks at it as way to measure the cost of domestic currency as it relates to foreign goods and services. As stated by Klein, Schuh and Triest (2003) labour adjustment cost arise with hiring costs especially during training, in case of job creation. Therefore, measures of job creation provide additional information on the dynamics of labour markets. (Davis, Haltiwanger and Schuh, 1996).

According to Fernando, Pedro, Joao, and Miguel (2009), the rate of job creation in sector argue that job creation is interconnected with a function of exchange rate, foreign direct investments and foreign portfolio investments. This simply refers that total number of job created is a reflection of total foreign investments as driven by amount of exchange rate in a given economy at a particular period. Thus, exchange rate is a major factor to consider on the amount of foreign investments put together. However, an emerging country like Nigeria, exchange rates are usually volatile. This was supported by Ozturk (2006) who astray such volatility as risk associated with unanticipated shocks in exchange rate.

Meanwhile, Hooper and Kohlhagen (1978) found out that there is a negative relationship between exchange rate volatility and trade volume, when players in the economy are risk averse. They equally suggested that players who are risk averse will end up experiencing a

decrease in their utility gains associated with trade if exchange rate is still volatile as a result of negative effects on profit, thereby reducing volume in international trade. However, taking about the exchange rate volatility in international trade, it depends on importers and exporters behaviour towards risk, if the players are risk takers, exchange rate volatility can have positive effects on international trade.

Meanwhile, Vandermerwe and Mollentze (2010) looks at measuring of exchange rate from the point of real and nominal rate, whereas, Ngandu (2008) considers that changes in domestic production cost are being influenced by fluctuations in a nations currency. While Nucci and Pozzolo (2010) refers that the channel of appreciation or depreciation of currency has effects on the labour market as it relates to job creation. Ribeiro (2004) considers that exchange rate has effect on gross job flows which is uneven, pointing out that an appreciation of country's currency will lead to decrease in total job growth. Compa and Goldberg (2001) opined that job creation is being determined by movement in exchange rate, based on various source such as increase import penetration through demand shock, which are influenced by increase competitiveness of local goods in the market.

Secondary, export orientations through increased sectoral focus, results in competitiveness shocks. Finally, use of imported input cost, will definitely affects the cost of factors of production, meaning that depreciation in domestic currency will lead to high variation in cost and prices of output. Again, an open economy or industry is a determining factor as to level of real exchange rate changes which affects the level of job creation according to Klein, Schuh and Triest(2003). Moreover, the extent of the labour market response to exchange rate movement is heavily relied on size of market and regulatory organization according to Burgass and Knetter (1998). Erdal (2001) pointed out the cost of reversing the decision to hire a worker is high, considering the employment and investment decision in the face of corporate structure. Also Klein *et al* (2002) stated that trade liberalization and changes in real exchange rate affects directly the level of job creation as well as the rate at which jobs are destroyed.

### **Foreign Investment and Job Creation**

Foreign investment remains a major job driver and it is crucial to macroeconomic factor for encouraging job enabling environment (Okonkwo et al., 2021; Amain 2001). Foreign Investments serves as pre-requisite in gaining job-enabling economic and social platform (Altman 2003 and Chili 2000). According to Schmid (2008), ascertaining the number of jobs created depends on the direction of foreign investments. Atman (2003) reacted to difference in the behavior of job –enabling growth dynamic, by showing the employment and investment multiplier effect that are limited to nations supply challenges within its product capacity, which is very capital intensive. The nation's job growth is not on labour absorbing as it relates to capital intensive, rather than extensive growth which is within the production capacity. However, nations with high protective labour union have low responsive of employment to changes in economic growth. Sogner and Stiassny (2000) mentioned that such nations are usually characterize with higher level of unemployment rate due to strong labour law, meaning that reaction of job creation to foreign investment in those nation is weak, this may be the case of Nigeria. Therefore, one will be asking if Nigeria is experiencing job growth or jobless growth.

### **Empirical Literature Review**

Several studies have empirically investigated the effects of exchange rate on job creation in most countries of the world. For instance, Alexandre, Bacao, Cerejeira and Portela (2010) examined the relationship between exchange rate and labour market as it affects employment. The study employed model-based predictions which are consistent with estimate obtained using panel data for 23 Organization for Economic Cooperation Development countries. The result suggested that employment in low technology sectors that have a very high degree of openness to trade and are located in countries with more flexible labour markets are more sensitive to exchange rate changes. This added evidence on the importance of relationship between foreign exchange rate and employment. Bhorat, Tian and Ellyne (2014) studied the effects of exchange rate fluctuations on sectoral employment in South Africa from 1975 to 2009. The model by Chen and Dao (2011), Campa and Goldberg (2001) compared South African results to theoretical predictions. The results reveal a real exchange rate appreciation shows negative and significant employment decline in the tradable sector, limited evidence of a positive employment impact in non-tradable sector and generally no effect on aggregate employment.

Alexandre, Bacao, Cerejeira, and Portela (2017) also examined the effect of labour market rigidity on the impact of exchange rate shocks on employment. Panel data set comprising 22 manufacturing sectors across 23 Organization for Economic Cooperation Development countries. The effects of exchange rate fluctuations on sectoral employment are mediated by the degree of openness and by a measure of labour market rigidity. The OECD's employment protection legislation (EPL) index was used. The findings suggest that greater labour market rigidity reduces the impact of exchange rate shocks on employment. This effect is statistically significant for low-technology sectors.

Yokoyama, Higa and Kawaguchi (2015) examined effects of exchange rate on employment of regular and non-regular workers in a labour market. Analysis of Japanese firm level panel data reveals that while appreciation of the Yen decreases the employment of exporting firms, depreciation of Yen promotes the growth of local jobs in the manufacturing and non-manufacturing sectors (tradable sectors).

Huang and Tang (2016) estimated effects of foreign exchange rate on U.S.A. employment, exploring differences in industries across major cities. The result discovered that a 1% appreciation of export weighted real exchange rate reduces employment by 0.52%, this has direct effect on manufacturing employment, suggesting an appreciation of exchange rate is detrimental to employment growth in tradable sectors and non-tradable sector (Manufacturing Sector). Cities with heavy manufacturing employment concentration has indirect effect that is statistically significant and about 60% large as the direct effect measured by the number of jobs.

Gourinchas (1999) examines empirically the number of job creation and destruction in response to real exchange rate movements in France between 1984 and 1992, using disaggregated firm level data. Traded-sector (non-manufacturing) is very responsive to real exchange rate movements. The results show that estimation of 1% appreciation of real exchange rate destroys 0.95% of tradable jobs over the next two years, noting that job creation is more volatile than job destruction. It also indicates the importance of large unanticipated changes in the real exchange rate.

Klein (2003) estimated how the real exchange rates affected the labour reallocation using a new model of gross job creation and destruction as it applied to U.S.A. manufacturing industries between 1973 and 1993. Result shows that real exchange rates significantly affect job reallocation, not necessarily the net employment, but cyclical real exchange rates significantly affect net employment through job destruction. Burgess (1998) evaluated empirically the effects of exchange rate on employment at industry level for G-7 countries, using an empirical framework that places little structure on the data. The result found that European industries, such as France and Germany, are much less affected by exchange rate shocks and much slower to adjust to long-run steady states. United States, Japan, Canada, United Kingdom and Italy appear to adjust more quickly; however, German and France employment is quite insensitive to exchange rate variation.

Nucci and Pozzolo (2010) estimated the response of job to foreign exchange fluctuations, using a representative panel of manufacturing firms in South Africa. Result shows that it depends on firm's exposure to foreign sales and reliance on imported goods/inputs. It also reveals that given international exposure, response to exchange rate variation is amplified, if firms' shows lower monopoly power and face foreign pressure in domestic market through import penetration. Exchange rate swings affects import substitution and other inputs plus the required type of workers needed as to the nature of employment.

Ngandu (2009) analyzed the effects of appreciation of rand on employment in South Africa, using a computable general equilibrium model. The idea is to astray the effects of exchange rate on aggregate employment and sectoral output. The result indicates that traded sectors are negatively affected, while non-traded sectors experience are negatively growth due to appreciations. Belke and Kaas (2004) worked on the impact of real exchange rate variation and total employment growth in Central and Eastern European country, using the cross-country panel analysis. Result show that real exchange rate volatility reduces employment growth. Moreover, Belke and Gros (2002) also analyzed the effects of exchange rate volatility on employment growth and changes in unemployment between 1973 and 1999 in Germany. The study shows that an increase in exchange rate volatility reduces employment growth and increases unemployment rate.

Frenkel and Ros (2006) analyzed the relationship that exist between real exchange rate and unemployment rate in four Latin American countries such as; Argentina, Brazil, Chile and Mexico, using Ordinary Least Squares (OLS). The results show that real exchange rate appreciation increases unemployment rates in these nations, while stating that persistence high unemployment rates is due to show process of funds accumulation and style of trade specialization which is oriented towards natural resources intensive products.

Galindo, Izquierdo, and Montero (2007) examined the effects of real exchange rate fluctuation on employment and its significant impacts on trade openness and liability dollarization in 9 Latin American countries using a panel data analysis. The result shows that real exchange rate depreciation increases employment growth in countries with high degree of trade openness.

Kim (2005) analyzed the relationship on exchange rate and employment in the manufacturing sector including all industries to show aggregate level of employment response to exchange rate shocks in Korea from 1970 to 1995 using panel data analysis. The result reveals that real exchange rate appreciation leads to decrease in employment whereas at United Kingdom, an appreciation has a positive but no significant impact on employment.

Udoh and Egwaikhide (2008) examined effect of exchange rate volatility and inflation uncertainty on foreign direct investment in Nigeria, which covers between 1970 and 2005 using the GARCH Model. The results show that exchange rate volatility and inflation uncertainty have significant and negative effects on foreign direct investment. It also shows that infrastructural development, goods or adequate size of government sector and international competitiveness are vital determinants for FDI inflows. This support the commitment of policy makers that exchange rate and macro-economic stability is key to FDI boom in Nigeria.

Babajide and Lawal (2016) ascertained the relationship between FDI and selected macroeconomic variables at short run and long run equilibrium in Nigeria, using ARDL estimation techniques. Reason is to ascertain, if the selected macro-economic variables have significant effects on FDI, what macroeconomic variable(s) need manipulation to enhance more inflows, what policy implication should be adopted? Results shows, policy that expand trade increases government expenditure, manipulate exchange rate system; lower inflation and interest rate are useful in attracting FDI inflows.

Adedoyin, Asale and Oluwafunke (2016) investigated empirically the effects of exchange rate fluctuation on economic growth in Nigeria using CBN Statistical Bulletin Data from 2003 to 2013, and Autoregressive Distributed Lag (ARDL) Model. The results show that exchange rate fluctuation has no effect on economic growth at the long run, though at short run, a relationship exists between them. The further recommended for strong foreign exchange control policies to help determine value of the exchange rate.

Saheed and Ayodeji (2012) examined the effects of capital flight on exchange rate and economic growth in Nigeria, adopting Ordinary Least Square method to analyze the Central Bank of Nigeria and National Bureau of Statistics secondary data. The results show that capital flight has a positive and statistically significant effects on the exchange rate in Nigeria, and in difference to previous work, capital flight has a positive effect on economic growth in Nigeria.

Ayadi (2008) investigated the linear determinants of capital inflow in Nigeria utilizing the ordinary least squares (OLS) and Error Correction Method (ECM). Findings show that exchange rate significantly explains capital inflows at the long run in Nigeria. However, the study builds on the findings by investigating the reverse case study, which is the effect of exchange rate on capital inflows in Nigeria.

Busari (2010), on this study examined the effects of capital flight on economic recession indicators in Nigeria. Capital flight was regressed against the variables of GDP, Inflation, Interest rate, Unemployment and Exchange Rate, using Ordinary Least Square method.

Results show that capital flight has negative effects on GDP, Inflation, Interest Rate and Unemployment, while GDP and Unemployment were statistically significant, others were insignificant.

## METHODOLOGY

This study employs the classical linear regression model (CLRM) to analyze the effects of exchange rate on job creation in Nigeria. The study specifies an output model wherein Job Creation (JBC) is expressed as a function of exchange rate, foreign direct investment and foreign portfolio investment. The model is presented thus:

$$JBC_t = f(EXR_t, FDI_t, FPI_t) \quad (1)$$

(+    +    +)



$$JBC_t = \alpha_0 + \alpha_1 EXR_t + \alpha_2 FDI_t + \alpha_3 FPI_t + \mu \quad (5)$$

Where

JBC	=	Job Creation
EXR	=	Exchange Rate
FDI	=	Foreign Direct Investment
FPI	=	Foreign Portfolio Investment

## RESULTS AND DISCUSSION

### Unit Roots Tests

Table 1 present the result of Augmented Dickey Fuller (ADF) Unit root test for the order of integration of the variables considered. The purpose of the test is to examine if Job Creation (JBC); Exchange Rate (EXR); Foreign Direct Investment (FDI) and Foreign Portfolio Investment (FPI) are Stationary, meaning if they have unit roots, and also their order of integration. Therefore, essence of the test is the null hypothesis of nonstationarity. To reject this, the ADF statistics must be more positive or negative than the critical values and significant.

Table 1  
*Unit Root Output (Augmented Dickey Fuller)*

Variable	ADF t-statistics	Critical Value 5%			Order of Integration	Prob.
		1%	5%	10%		
D(JBC)	-3.824771	-4.004425	-3.098896	-2.098896	I(1)	0.0138
D(EXR)	-4.152099	-3.886751	-3.052169	-2.666593	I(1)	0.0059
D(FDI)	-4.478334	-3.886751	-3.052169	-2.666595	I(1)	0.0031
D(FPI)	-4.800711	-3.920350	-3.065585	-2.673459	I(1)	0.0019

From Table 1, shows that all employed variables are reliably stationary at the first difference. This further indicates that their attributes are within their respective mean and they possess a viable trend that can be used for non-spurious analysis. In light of this, we proceed to the long-run test.

### Co-integration Test Results

Table 2 present the results for the Trace test and Max-Eigenvalue statistics in the Johansen co-integration test with intercept and no trend. The trace statistic shows one co-integrating equation ( $p \leq 1$ ) at 0.05 level of significance. However, the null hypothesis of no co-integration equation ( $p=0$ ) is accepted for the Max-Eigenvalue as it failed to support Trace test results. The results obtained in the Max-Eigenvalue, of no co-integration compared to the Trace statistic, remain in favour of the study. The Trace test statistic has proven to be superior and outperforms the Max-Eigenvalue when working with large data samples (Saikkonen and Luetkepohl, 2000). Therefore, the null hypothesis of no co-integrating equation is rejected. This suggests that variables are co-integrated or that a long-run relationship exists within the series.

Table 2  
*Johansen Co-integration Test Results*

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None*	0.554395	20.44743	15.49471	0.0082
At most 1*	0.325962	6.705970	3.841466	0.0096
At most 2	0.378414	9.335106	15.49471	0.3353
At most 3	0.070996	1.251917	3.841466	0.2632

Trace test indicates 2 cointegration at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

From Table 2, It shows that both Trace Statistic and Eigen Value indicate the presence of two co-integrating equation. This indicates that job creation has T statistic value of 20.4 with probability value of 0.0082, while exchange rate has T statistic value of 6.70 with probability value of 0.0096, meaning they fall below test value of 5% or 0.005 level of significance. This leads to the rejection of the null hypothesis of no co-integration and the acceptance of its alternate. The study thus concludes that there exist a long run relationship between exchange rate and job creation in Nigeria.

#### Granger Causality Results

Table 3 indicates the casual relationship between the variables. This is to evaluate for the causal relationship between the employed variables.

Table 3  
*Pairwise Granger Causality Test Result*

Null Hypothesis:	Obs	F-Statistic	Prob.
EXR does not Granger Cause JBC	17	4.56256	0.0336
JBC does not Granger Cause EXR		1.43913	0.2753

From Table 3 it shows that we reject the null hypothesis that exchange rate (EXR) does not Granger cause job creation (JBC). This is because computed F-statistic value is significant. Meanwhile, we accept the null hypothesis that JBC does not granger cause EXR. Thus, there exists a unidirectional causality from exchange rate to job creation in Nigeria.

#### Error Correction Model

Table 4  
*Parsimonious ECM Result*

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(EXR(-1))	2.043253	0.990961	2.061890	0.0731
D(FDI(-1))	0.363170	0.655850	0.553740	0.5949
D(FPI(-1))	-0.002429	0.020737	-0.117154	0.9096
ECM(-1)	-0.804835	0.366383	-2.196703	0.0593
C	-0.284450	0.193548	-1.469663	0.1799
R-squared	0.621277	Mean dependent var		-0.171607
Adjusted R-squared	0.542553	S.D. dependent var		0.519356

S.E. of regression	0.452002	Akaike info criterion	1.554793
Sum squared resid	1.634450	Schwarz criterion	1.995906
Log likelihood	-4.215745	Hannan-Quinn criter.	1.598641
F-statistic	1.640450	Durbin-Watson stat	2.073171
Prob(F-statistic)	0.049772		

The error correction term as shown in Table 4 is of the expected adverse sign and also statistically substantial at 5% level of significance. The absolute value of the coefficient of the error Ccorrection term indicates that about 80% of the disequilibrium in the level of job creation is offset by short run adjustment in each year. It is also shows that the coefficient associated with exchange rate is 2.043253 while its probability value is 0.0731. The associated F-Statistic value of 1.640450 is statistically substantial at the 5% (0.05) significance level, which confirms a good line of fit and since Prob(F-statistic) of 0.049772 is less than 0.05 level of significance, we therefore reject  $H_0$  and conclude that there is a significant relationship between all identified variables and job creation in Nigeria.

### Discussion of Results

This study empirically investigated effects of exchange rates on job creation in Nigeria and found out that exchange rate shows a positive relationship though insignificant influences on job creation at the short run. However, with 80% ECM, the variable is expected to be significant with positive relationship at the long run. This results was in line with the study of Yokoyama, Higa, and Kawaguchi (2015) a Japanese researcher who discovered a positive, though significant relationship, that appreciation of Yen, decreases the employment of exporting firms, while depreciation of Yen promote the growth of local jobs in manufacturing and non-manufacturing sector. Saheed and Ayodeji (2012) a Nigerian researcher shows significant effect on positive direction, that capital inflow and exchange rate increase has a positive effect on the economy, leading to job creation. Huang and Tang (2016) estimated the effects of exchange rate on U.S. employment, exploiting differences in industrial composition across major cities and discovered that a 1% appreciation of export-weighted real exchange rate reduces employment by 0.52%.

Gourinchas (1999) examines empirically the number of job creation and destruction in response to real exchange rate movements in France between 1984 and 1992, using disaggregated firm level data, as results show that estimation of 1% appreciation of real exchange rate destroys 0.95% of tradable jobs over the next two years, noting that job creation is more volatile than job destruction.

Meanwhile, Kim (2005) analyzed the relationship on exchange rate and employment in the manufacturing sector including all industries to show aggregate level of employment response to exchange rate shocks in Korea from 1970 to 1995 using panel data analysis and discovered that real exchange rate appreciation leads to decrease in employment but contradict at United Kingdom, an appreciation has a positive but nosignificant impact on employment. Udoh and Egwaikhide (2008)examined effect of exchange rate volatility and inflation uncertainty on foreign direct investment in Nigeria, which covers between 1970 to 2005 using the GARCH Model, and found out that exchange rate volatility and inflation uncertainty has significant and negative effects on foreign direct investment. This connotes that in a developing country like Nigeria, an increase in exchange rate brings about foreign direct investment which leads to an

increase in job creation. Therefore, with an increase in exchange rate, production will be encouraged and this will help create jobs in the country.

### CONCLUSION AND RECOMMENDATIONS

Job creation has been the pivot of any economic growth and development, which has the capacity to reduce insecurity, improve social stability. Exchange rate and Foreign Investments play a critical role on job creation as good business environment remains attractive to foreign investors. The basis of this study has been to examine the extent of effects exchange rate has on job creation in Nigerian. The work employed variables such as exchange rate, foreign direct investment, foreign portfolio investment and number of job creation which covers the period of 2000 – 2018, using the Johansen Co-Integration test, Pairwise Granger Causality, and Error Correction Model after conducting the stationary test.

The findings suggest that both exchange rate and foreign direct investment has a positive relationship, though insignificant at the short run. The insignificant implies that Nigerian business environment is not fully attractive to investors, meaning that depreciation of exchange rate is not only a factor, it takes other stages to bring inflow for investments that will yield the desired job growth and employment. However, it is expected that with 80% ECM, the variables has the capacity to be significant with positive relationship at the long run. The direction of impact among the explanatory variables indicate that they are positively associated with job creation. Policy makers should not totally rely on exchange rate depreciation instrument, but should use it to compliment other macro-economic policies that will attract more FDI with focus on reducing insecurity in the country.

### References

- Abdel-Moneim, M. A. (2015). *A political economy of Arab education: Policies and comparative perspectives*. New York: Routledge.
- Alexandre, F., Bacao, P. M. A., Cerejeira, J., & Portela, M. (2010). *Employment, exchange rates and labour market rigidity*.
- Alexandre, F., Bação, P., Cerejeira, J., & Portela, M. (2017). Exchange rates, employment and labour market rigidity. *The World Economy*, 40(5), 993-1011.
- Altman, M. (2003). Jobless or job creating growth? Some preliminary thoughts. Employment and Economic Policy Research Program, Human Sciences Research Council. Paper Presented at the TIPS/DPRU Annual Forum. <http://intranet.hsrc.ac.za>.
- Ayadi F. S. (2008). Econometric Analysis of Capital Flight in Developing Countries: A study of Nigeria. A paper presented at the 8<sup>th</sup> Global Conference on Business and Economy, Florence, Italy.
- Babajide, A. A., & Lawal A. I. (2016). Macro economic behavior and FDI inflows in Nigeria: An application of ARDL Model. *British Journal of Economics, Finance and Management Sciences*, 11(1), 84-107.
- Belke, A., & Gros, D. (2002). Designing EU–US Atlantic monetary relations: exchange rate variability and labourmarkets. *World Economy*, 25(6), 789-813.
- Belke, A., & Kaas, L. (2004). Exchange rate movements and employment growth: An OCA assessment of the CEE economies. *Empirica*, 31(2-3), 247-280.
- Bhorat, H., Tian, N., & Ellyne, M. (2014). *The real exchange rate and sectoral employment in South Africa* (No. 201404).

- Burgess, S. M., & Knetter, M. M. (1998). An international comparison of employment adjustment to exchange rate fluctuations. *Review of International Economics*, 6(1), 151-163.
- Cambridge Business English Dictionary. 2019. Definition of Job Creation. (JC). [www.dictionary.cambridge.org/dictionary/english/job-creation](http://www.dictionary.cambridge.org/dictionary/english/job-creation)
- Camp, J., & Goldber, L. S. (1995). Investment in Manufacturing, exchange rates and external exposure. *Journal of International Economics*, 38(3-4), 297-320. [http://dx.doi.org/10.1016/0022-1996\(94\)01348-V](http://dx.doi.org/10.1016/0022-1996(94)01348-V)
- CBN (2018). Statistical Bulletin. Abuja: Central Bank of Nigeria. [www.cbn.org](http://www.cbn.org)
- Chen, R., & Dao, M. 2011. The real exchange rate and employment in China. *IMF Working Papers*, 148(11), 1-50.
- Davis, S., Haltiwanger, J.C., & Schuh S. (1996). *Job creation and destruction*. MIT Press, Cambridge, Massachusetts.
- Dornbusch, R. (1998). *Open macroeconomics* (2<sup>nd</sup> Edition), New York.
- Dornbusch, R., Fisher, S., & Startz, R. (2011). *Macroeconomics* (Seven Edition), New York: McGraw-Hill.
- Ehsani, M., A. Khanalipour, J., & Abbasi, (2009). Effect of exchange rate volatility on exports to Iran. *Journal of Economic Sciences*, 9(1), 13-34.
- Erdal, B. (2001). Investment decisions under real exchange rate uncertainty. *Central Bank Review*, 1(1), 25-48.
- Eze & Okpala (2014). Quantitative analysis of the impact of exchange rate policies on nigeria's economic growth: a test of stability of parameter estimates. *International Journal of Humanities and Social Science*, 4(7), 265-272.
- Fakiyesi O., & Akan. O. (2005). *Issues in money, finance and economic management*. University Press Lagos.
- Frenkel, R., & Ros, J. (2006). Unemployment and the real exchange rate in Latin America. *World development*, 34(4), 631-646.
- Galindo, A., Izquierdo, A., & Montero, J. M. (2007). Real exchange rates, dollarization and industrial employment in Latin America. *Emerging Markets Review*, 8(4), 284-298.
- Gourinchas, P. O. (1999). Exchange rates do matter: French job reallocation and exchange rate turbulence, 1984–1992. *European Economic Review*, 43(7), 1279-1316.
- Guitan, M. (1976). The effect of changes in exchange rate on output, prices and the balance of payment. *Journal of International Economics*, 6, 65-74.
- Hooper, P., & Kohlhagen, S. W. (1978). The effect of exchange rate uncertainty on the prices and volume of international trade. *Journal of international Economics*, 8(4), 483-511.
- Huang, H., & Tang, Y. (2016). How did exchange rates affect employment in US cities? *Contemporary Economic Policy*, 34(4), 678-697.
- International Labour Organization (2019). World employment social outlook. <http://www.ilo.org/wcmsp5/groups/public.pdf>.
- Kim, C. (2005). Modeling surrender and lapse rates with economic variables. *North American Actuarial Journal*, 9(4), 56-70.
- Klein, M. W., Schuh, S., & Triest, R. K. (2003). Job creation, job destruction, and the real exchange rate. *Journal of International Economics*, 59(2), 239-265

- Klein, M. W., & Shambaugh, J. C. (2012). Exchange rate regimes in the modern era. MIT Press. <http://www.jstor.org/stable/j.ctt5hhbcb>.
- Liu H., Idrees, Z., Satti, J. A., & Nazeer, A. (2015). Exchange rate volatility and Oil prices shocks. *International Journal of Academic Research in Business and Social Science*, 5(1), 249-256.
- Michaillat, P., Saez E., & Landais C. (2015). A Macro Economic Approach to Optimal Unemployment. *American economic Journal; Economic Policy 2018*, 10(2), 152-181.
- Mordi, C.N. (2006). Challenges of exchange rate volatility in economic management in Nigeria.
- Ngandu, S. N. (2009). The impact of exchange rate movements on employment: the economy-wide effect of a rand appreciation. *Development Southern Africa*, 26(1), 111-129.
- Nucci, F., & Pozzolo, A. F. (2010). The exchange rate, employment and hours: What firm-level data say. *Journal of International Economics*, 82(2), 112-123.
- Obadan, M. I. (1994). Nigeria's Exchange Rate Policy and Management. National Center for Economic Management and Administration (NCEMA) Monographs Series. No5, NCEMA Publication, Ibadan.
- Obadan, M. I. (2006). Overview of Exchange Rate Management in Nigeria from 1986 to Date” In the Dynamics of Exchange Rate in Nigeria. *Central Bank of Nigeria Bullion*, 30(3), 1-9.
- Obi. K. O., Oniore. J. O., & Nnadi K. U. (2016). The Impact of exchange rate regimes on economic growth in Nigeria. *Journal of Economics and Sustainable Development*. 7(12).
- Okonkwo, J. J., Osakwe, C. I., & Nwadike, E. C. (2021). Exchange Rate and Foreign Direct Investment in Nigeria 1981-2018. *International Journal of Academic Research in Business and Social Sciences*, 11(1), 213–232.
- Osaka, G.C., Masha, I., & Adamgbe, E. (2003). Issues in Exchange Rate Policy: Economic and Political Consideration In: Nnana, O.J., Alade, S.O. and Odoko, F.O. ed. Contemporary Economic Policy Issues, Abuja, Central Bank of Nigeria.
- Ozturk, I. (2006). Exchange rate volatility and trade: A literature survey. *International Journal of Applied Econometrics and Quantitative Studies*, 3(1), 85-102.
- Ribeiro, P. R., Corseuil, C., Santos, D., Furtado, P., Amorim, B., Servo, L., & Souza A., (2004). Trade Liberation, the Exchange Rate and Job Flows in Brazil. *Policy Reform*, 7(4), 209-223.
- Saheed Z.S., & Ayodeji S. (2012). An empirical analysis of impact of capital flight on Nigeria economy. *International Journal of Humanities and Social Science*, 5(2).
- Schmidt, C. W., & Broll U. (2009). Real Exchange Rate Uncertainty and US Foreign Direct Investment; an Empirical Analysis. *Review of World Economics*, 145(3), 513-530.
- Sogner, L., & Stiassny A. (2002). A Cross-Country Study on Okun's Law, Vienna University of Economics and Business Administration Working Paper Series Working Paper No 13, PP 1-24.
- Udoh. E., & Egwaikhide, F. O. (2008). Exchange Rate Volatility, Inflation Uncertainty and Foreign Direct Investment in Nigeria. *Botswana Journal of Economics*, 5(7) 14-31.
- UNDP (2015). Sustainability and Equity: A Better Future for All. Human Development Report 2015. New York.

- Van der Merwe, E., & Mollentze, S. (2010). *Monetary Economics*. Cape Town: Oxford University Press Southern Africa.
- Yokoyama, I., Higa, K., & Kawaguchi, D. (2015). The effect of exchange rate fluctuations on employment in a segmented labor market. *Research Institute of Economy, Trade and Industry (RIETI)*