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International Remittances and GDP Growth in Nigeria

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ABSTRACT---- ***In developing countries, remittance from citizen working outside their countries contribute in explaining the behaviour of their home country's economic growth. Nigeria like any other developing nation,international remittances are considered second largest source of finance after FDI. Remittances and GDP growth in Nigeria has been analysed for the period from 1970 to 2014. Using the Generalized method of moments (GMM) to control endogeniety problem and to also handle unobservable effects. The study showed that remittances are positive as well as significant with GDP growth and also plays an active role in explaining the Nigeria's economic growth. Also, financial sector's impact on GDP growth is positive and significant as well as trade openness and world growth GDP. The policy recommendation based on this research finding is that, the financial sector should be improve and be encouraged with necessary legal framework and some basic infrastructures to facilitatethe smooth and horizontal transaction of remittances and also for this sector to perform the role of productive investment.***

Keywords--- remittances; FDI; GMM; financial sector

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1. INTRODUCTION

Developing countries' economy remain extremely vulnerable to remittance fluctuation as an exogenous factor. The global financial crisis and food price crisis of 2008 experienced by many less developed countries serve as pointer to the macroeconomic distortion that can emanate from remittance fluctuation (Combes, Ebeke, Etoundi, & Yogo, 2014). In addition, developing countries have increasingly been subjected to natural disasters which have severe consequences on their output and fiscal balances. A gap that has constantly been salvaged by remittance proceed in most of the developing countries especially those in Africa (Noy & Nualsri, 2008; Raddatz, 2007). As a result of the observed role of remittance in developing countries, policy debate is now focusing on how best it can be manage an utilized(Schneider, 2005).

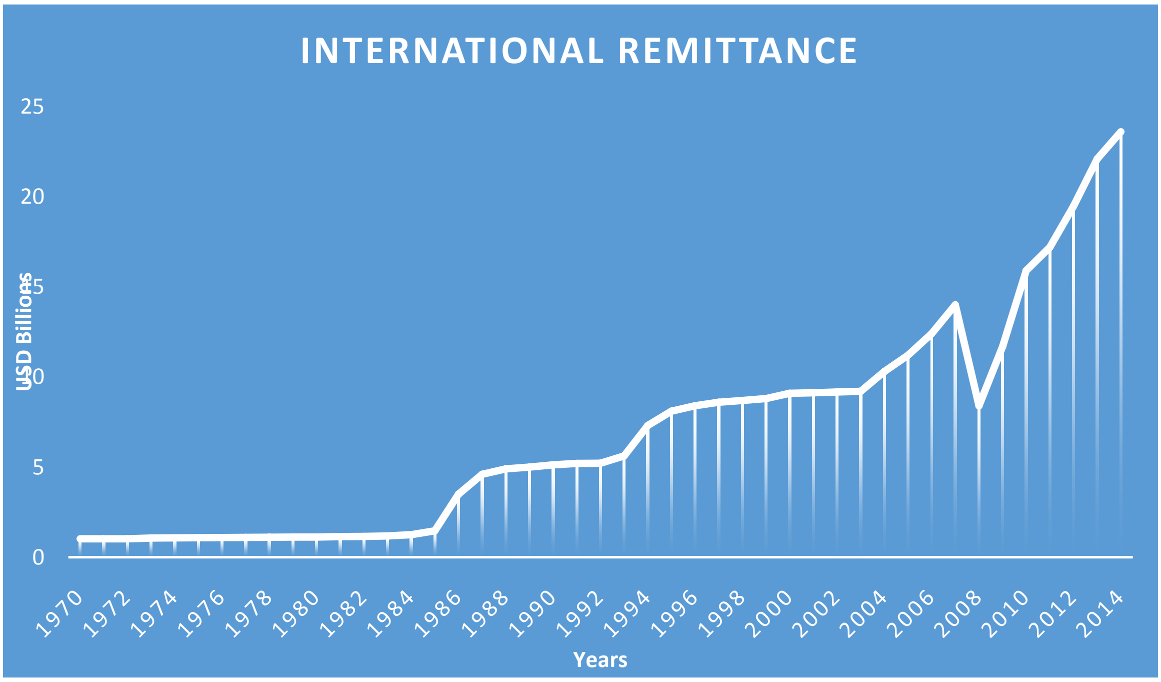
International remittance which can also be referred to as global remittance is the percentage of an individual living in a foreign land salary or wage that has been returned home to assist the living condition of his people back home or for the purpose of any economic activities (Gupta, S., Pattillo, C. and Wagh, 2007). According to Russell and Teitlbaum (1992)international remittances constitute an important mechanism for the transfer of resources from developed to developing countries. Remittances, over the years have increased the inflow of capital for investment and consumption to the Less Developed Countries (LDCs)from developed countries (DCs)due increasing mobility of labour galvanised by globalization.Remittance has become an important source of foreign capital inflow for developmental purpose in many LDCs.Productivity level of many economieshave been life line by proceed from remittance in many countries in Africa.

Importance of remittance cannot be over emphasised. Remittance has proven to be the source of finance the powered the real sector of many developing countries. Remittance magnitude has continued to increase in size and influence in world economy explanation. IMF (2013) reported that in Africa, remittance has transformed to be the second largest source of foreign finance after Foreign Direct Investment (FDI).Ratha (2003) believed remittance is the most stable source of foreign finance in developing economies as compared to FDI, foreign aid and foreign debt. From The empirical literature, remittances to developing economies have increased tremendously.Remittances to developing countries are projected to reach USD540 billion by 2016. This amount to three times the size of official development assistance to these countries in the said period (Bank, 2013).The consistency of remittance in financing many LDCs economies has been obvious since the onset of the global financial crisis.World Bank (2012) reported that remittances to developing economies accounted for an increase of 11.7% growth rate and forecasted that the flow of remittances to developing economies is expected to have a growth rate of eight percent,10 percent, and 10.7 percent in 2013,2014 and 2015 respectively.

Since the mid-1980s, the exodus of Nigeria to Europe and America increases rapidly. Although, before this time, Nigerian who reside and work outside the country were few until the popular "Andrew's checking out" sage of the mid-1980s.Before Structural Adjustment Programmes (SAP) of 1986, remittance contributed less than 0.05 percent of the country's GDP. However, in 1987, remittance contribution has risen to 0.31 percent of the GDP. This increase as been consistent and persistent since then. In 2013, remittance contribute 2.01 percent of Nigeria GDP(CBN, 2014).

With the rapid increase in the numbers of Nigerian working in diaspora, the expectation of remittance contribution to the GDP in the years ahead is high. A projection of US$20 billion was made for 2014 fiscal year, but US$ 22 billionwas realised instead (CBN, 2014). Thisincrease in remittances can be justified by the increase in the number of workers migration and higher skill levels of migrating workers(World Bank, 2011). As been depicted by figure 1, the movement of international remittances to Nigeria have more than doubled in the last ten years(CBN, 2014). Like other developing countries international remittances is also a key factor of productivity growth rate inNigeria. Empirically study indicates that remittances inflow to Nigeria play significant role in GDP growth rate, better balance of payments, poverty reduction, reduction in unemployment problem and improve the living standard of receiver households.

Figure 1. Remittances to Nigeria (Billion US$): 1970-2014



As depicted in figure 1, remittance has persistently been on the increase in Nigeria. In the early part of the country history, capital inflow from remittance was not much thereby having less impact on the country's GDP. Since 1986, remittance inflow to Nigeria keep increasing in amount and influence. Remittance has transformed from consumption role to investment determinant n Nigeria. Obadan (2010)opined that during the 2009 Nigeria general election, remittance has been one of the sources of fund for campaign. He emphasised that remittance which hitherto gives a meaning to life of the worker's family member has transformed into determinant of policy direction in the society. CBN (2014)submitted that if properly accounted for, remittance in Nigeria determined investment more than any other source of foreign investment. Mainly uses of remittances in Nigeriahas often be related with household consumption but little or no remarkable attention has been given to remittance for investment in Nigeria in literature despite all these importance. This study's main objective is analyse therelationship between remittances and GDP growth in Nigeria within the scope of the study (1970-2014) and also, to examine the cyclical behaviour of remittances inflow to Nigeria. This study is divided into five section with this introduction as section one, literature review as section two, methodology and result and discussion as section three and four respectively. Section five is the conclusion and policy implication.

2. REVIEW OF LITERATURE

The debate of impact of remittance on the economy (GDP) remain an inconclusive debate. This occurrence is due to the existence of scholars having divergent view on the direction of this relationship. Some scholars are of the view that the relationship is positive but other believed the relationship is negative. Scholars likeAdams and Page(2005) and Gupta, Pattillo and Wagh(2007) posited that remittance galvanized the process of economic growth since it serve as a source of income for the recipient who are the relation of the workers. They maintained that the recipient used to remittance inflow either for consumption or investment which will ultimately encourage the country's economic activitiesSimilarly, Antom(2010) Woodruff and zenteno (2007) and Yang (2008) submitted that remittance encourage economic growth through some of the determinants of economic growth like heath, education and entrepreneurship. Also, Agarwal, Demirtgur-Kunt and Martinez (2010) opined that remittance stimulate economic growth through financial institution. He maintained that, the recipient of remittance deposit their receipt in the bank which will serve in boosting the economic activity of the country.

Furthermore, Irfan (2011) examined the impact of remittances on poverty in Pakistan and discovered that remittances are prone for alleviating poverty in Pakistan.Karagoz(2009) and Qayyum, Junaid and Arif (2008) reported a positive and significant linkage with economic growth and remittances are also accountable in cutback of poverty in Pakistan. Chami, Fullenkamp & Gapen, 2009; Ratha, (2003) reported that through consumption, remittance increase the level of a country economic growth. He emphasised that the consumption capacity of the recipient increases because they have been financially empowered to participate in active commercial activity that they were unable to do before this empowerment.

However, IMF(2005) opined that remittance enhance foreign exchange inflow in a country. In Africa as an example of a small open economy, remittance leads to exchange rate appreciationwhich encourage lower export competitiveness. Thus, lowering the rate of economic growth. Chami, Fullenkamp and Jahjah (2003) posited that remittance reduces motivation and thereby discourage the participation in active economic activity. They argued that higher inflow of remittance breed laziness which discourage productivity and ultimately falls in the GDP. In corroboration with this position, Amedu (2010)in his study posited that there are long run equilibrium relationship remittance and GDP but this relationship cannot be established in the short run in Nigeria.

3. MODEL AND METHODOLOGY

In this research, the main model that will be used to explain the relationship between remittance and Nigeria economy (GDP) is obtained by adopting and modifying the Rashid and Ghulam (2014) model
As follows;

$$Y_{t=}\ \alpha_t + \beta_t Rem_t + \beta X_t + \delta X_t\ + \mu_t \ldots\ldots\ldots\ldots\ldots\ldots (1)$$

Where

$Y_t =\ GDP\ Growth,$ $\alpha = the\ intercept, Rem = remittance\ ratio\ to\ GDP,$
$\delta = parameter\ that\ estimates\ on\ the\ of\ all\ the\ controlled\ variables\ X.$

$$X = f(WGDP, GC, ER, TOT, TO, FD, PS, INF) \ldots\ldots\ldots. (2)$$

$\mu = error$

Where X in equation 2 is defined as

WGDP = World GDP Growth, GC = Government Consumption, ER = Exchange Rate, TOT = Terms of Trade, TO = Trade Openness, FD = Financial Development, PS = Private sector, INF =Inflation.

Due to the problem of endogeniety envisage in the model for this research, the use of OLS will not be adequate for its estimation. This justify the use of generalized method of moments (GMM) since OLS will be bias in its estimation of the model.

4. RESULTS AND DISCUSSION

Remittances have positive and significant relationship with GDP growth (see appendix 1). The positive relationship indicates that in Nigeria, remittances plays a significant role in fine tuning the Nigeria's economy. This result is in line with the finding of scholars like Antom(2010), Woodruff and zenteno (2007) and Yang (2008). From this research finding, remittances contributes 7.1 percent share ofNigeria GDP, this figure obviouslyshows the importance of remittances cannot be overemphasised. Remittances through some economic growth variables like health, education and entrepreneurship has been responsible for the GDP growth in Nigeria (Antom, 2010; Woodruff, & zenteno, 2007; Yang, 2008). Remittances positively effectsNigeria's economies by the medium of current accounts financing. Remittances inflows to Nigeria by her citizen working in diaspora are purely for altruistic motives. Also, financial development is positive and significant with Nigeria GDP growth. This is an indication that an improvement in financial sector is also an improvement in the economy(Agarwal, Demirtgur-Kunt & Martinez, 2010). Using credit to private sector (share to GDP) as proxy for financial development,we can explained the role played by financial sector in the healthy position of any economy. For remittances transaction, financial sector play a role of mediator, banking sector or other financial institutionsthereby encouraging vibrant economic activities in Nigeria.

Hike in general price level retard any nation economy and from the result of this research, inflation has a negative sign justifying the apriori expectation. Inflation was used in this research as a proxy to monetary policy. If interest rate charged on remittance inflow transaction is high, the impact of remittance on GDP would be less compared to when the charges are less. Nigeria's GDP has a positive and significant relationship with Trade openness. Theinclusion of this variable in the research model is that openness (trading without barriers) is key in any economy that have quest for growth. Trade openness galvanize specialization tendency due to thepresence of comparative advantage. Although, been used as a social welfare indicator, Term of trade as a unit value of export over unit value of import, in this research, indicates that there is negative relationship between Term of trade and Nigeria GDP growth. Actually,Nigeria import are more than her export and Nigeria export primary and non-refined goods and import heavily and costly machinery; thus, thereis bound to be trade deficit that will dampened or lessen her GDP. This implies that the impact of remittance would be neutralised if the country consumption fashion is more import skewed.

Furthermore, due to globalization, countries tend depend on each other especially developing countries depend on the developed economies. World GDP growth was included in the model to test thedegree ofother countriesroles in determining Nigeria's GDP growth. From the results, it shows that there is a positive relationship between world GDP growth and Nigeria GDP growth. This implies that, a good economic condition of the rest world encouraged more inflow of remittance by Nigerian working those countries which translate to good economiccondition in Nigeria. Also,government expenditure (Fiscal policy)is pivotal in the determination of a vibrant economy. In this research, it has a negative and significant relationship. Although, reports of previous studies submitted a positive and a significant relationship between government spending and economic growth. The reason for this occurrence might be due to high rate of subsidies and high rate of taxes. Also, it corroborate with our result of negative relationship between inflation and GDP growthfor when there is prevalence of high inflation in an economy, government expenditure is bound to impact negatively on GDP growth. Exchange rate in this research is positive and that implies that as exchange rate increases at that time export of a country increases and import decreases that are responsible to positive impact on economy as in case of Nigeria. When exchange rate increases at that time it also have positive effects on remittances inflow.

In ascertaining the behaviours of remittances inflow we adopt and adapt the formulated equation by Rashid, and Ghulam (2014) which is given as;

$$\boldsymbol{REM_{Nig} = \alpha + GDP_{Nig} + GDP_{World} \ldots\ldots\ldots\ldots\ldots..(2)}$$

In equation (2) remittances of Nigeria is dependent variable and GDP of Nigeria and world is the independent variable, the main purpose of this equation is to evaluate the remittances behaviour inflow to Nigeria. The above equation is estimated by GMM and the results (see Appendix 2) indicates that remittances inflow to Nigeria has countercyclical behaviourlike some Asian countries as presents by Mazhar and Junaid (2013): thus as GDP growth of Nigeria declines at the same time remittances inflow to Nigeria increases, and remittances inflow to Nigeria has positive and significant relationship with world GDP as it increases at that time remittance inflow to developing countries increases. Remittances to Nigeria have increased with highspeed at the time when Nigeria facing recession or facing high economic. Remittance in Nigeria increase tremendously after the introduction of SAP in 1986 and political shock of 1993 (June 12, general election) when many skilled Nigeria worker left the country (Obadan, 2010). Hence we can conclude that remittances have countercyclical approach in term of Nigeria.

5. CONCLUSION AND POLICY IMPLICATION

International remittances play an essential and significant role in developing economies, it is considered as the second largest source of financial inflow after FDI. The importance of international remittances increases with the passage of time in remittances recipient's countries. According to World Bank, Nigeria is rank sixth largest remittances recipients economy in the world (World Bank, 2013). From the result of the finding, remittances has positive impact on Nigeria's economy (GDP). The main objective of the study is to investigate that remittances has a positive relationship with the Nigeria's GDP. Generalized method of moments (GMM) employed to estimate our main two equations the central rationality for employing GMM is that it solve the problems of endogeneity and autocorrelation. The study finds that international remittances has a positive impact on the Nigeria's GDP.

Based on this research findings, our main policies suggestion (i) since Nigeria's remittances inflow are countercyclical, the Nigeria Government or appropriate authorities should improve GDP without minimize remittances inflow. (ii) Nigeriaauthority should encourage manpower movement to developed countries that will have positive and significant effect on Nigeria's economy. (iii)Nigerian government should established facilitation centre in USA and UK to attend to any problem confronting Nigerian international workers and supporting them with reasonable and reliable assistance to cope with their new settlement and also encourage them to saving money and all transection via financial institutions (like issuance of the remittances cards to everyNigerian international worker).(iv) Finally from this research finding, the financial sector should be improve and be encouraged with necessary legal framework and some basic infrastructures to facilitate the smooth and horizontal transaction of remittances and also for this sector to perform the role of productive investment

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Appendix 1. Remittance and GDP growth

	$GDP\ Growth$
$Remittance$	0.26^{*} (0.003)
$Inflation$	-0.07^{*} (0.017)
$Trade\ openness$	0.08^{*} (0.007)
$Term\ of\ trade$	-1.99^{*} (0.005)
$Exchange\ Rate$	0.019 (0.59)
$Government\ Expenditure$	-1.21^{*} (0.0011)
$World\ GDP\ Growth$	0.029^{***} (0.209)
$Financial\ Development$	0.14^{**} (0.07)
$Observation\ 44$ $C\ 7.85 R - square\ 0.71 J - statistic\ 0.002 Durbin\ Watson\ 2.26$	

p *values are given in parentaeses*, $*, **, ***$ *are significant at* 1%, 5% *and* 10% *respectively*

Appendix 2. Cyclical behaviour of remittances inflow to Nigeria

	$Remittances$
$GDP_{Nigeria}$	-2.89 (0.0000)
GDP_{World}	3.09 (0.0028)
$J - statistic$	0.0031
$R - square$	0.82
$Observation$	44