CHANGES IN REMITTANCE INFLOW AND PRIVATE SECTOR DEVELOPMENT IN NIGERIA: THE NEXUS

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ABSTRACT

This study examined nexus between changes in remittance inflow and private sector development in Nigeria. The main objective of this study is to determine the role the nexus between fluctuations in remittance inflow and economic growth in SSA. Ou results show that remittances are anti-growth. This could explained by the fact that consumption takes a greater part of remittances in Nigeria. Finally, the coefficient of inflation and trade openness are negatively signed and individually significant at the 1 per cent level; an indication that rising inflation rate (a symptom of macroeconomic instability and uncertainty) has a detrimental effect on economic growth in Nigeria. Without doubt, accelerating inflation has a destabilizing effect on economic growth as it engenders uncertainty and instability in the macroeconomic and investment environment. The findings support the findings of Narayan et al. (2011).

1. Introduction

Remittances can be explained as the money sent to family members back in a person's home country. Currently, remittances have constituted one of the largest sources of foreign capital inflows to the Nigeria economy as it accounts for about 12.7 percent of the gross domestic product (Peria, 2017). To an extent, makes up a significant portion of a country's Gross Domestic Product (Rashid, 2006 and Oshikoyo 1994). These fluctuations in remittances have consequences on the performance of several sectors of an economy, including the private sector which encompasses small and medium enterprises and other forms of businesses owned by citizens of a country (Nasr, 2019). Remittances are highly becoming essential external sources of development finance after foreign direct investment for the developing and emerging economies (Moniruzzaman, 2016; Williams, 2016; Sobiech, 2019). Furthermore, extant literature shows that remittances are predominantly used for consumption, purchase of land and other ordinary household spending which have little impact, if any, on the economic development of the receiving country (Gebregziabher, 2016; Quartey, 2019; Kassa, 2017). The argument underlying this traditional perspective is that households have no incentive to save and remittances are meant to cushions household against adverse economic situations (Jahjah et al., 2003; Connel & Conway, 2000). The objective of this research work is to determine the nexus between changes in remittance inflow and private sector development in SSA like Nigeria and to examine the relationship between remittances and economic growth in Nigeria.

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2. Literature Review

2.1. Conceptual Issues: The term remittance is used to describe money sent by someone working abroad to his or her family back home. Consequently, the sector teams up with foreign partners to invest in promising sectors like transportation, power, communications, and information technology and this provides a springboard for foreign direct investment in vital infrastructure. It often forms partnerships with some companies in their strategy of relocating industrial and other activities in order to remain globally competitive and maintain market shares. All these benefits accrue to an economy from the private agent wealth maximizing model of private enterprises and this is because a private economic agent has a well-defined economic goal (Olayiwola and Busari, 2001).

2.2. Theoretical Review

The Economic Growth Theory: Neo-Classical theory as analyzed by Roel (2006) opined that real salary differences between economies gave rise to bidirectional flows that culminated into a new international equilibrium in which real wage earning of all countries are the same. De la Brière et al. (1997), Hoddinott (1994), Osili (2004), and Schrieder & Knerr (2000) stated that, the more the quest for asset acquisition by migrants, more the amount of remittances sent. The pure altruism theory further asserts that the reasons behind the altruistic behavior are of the emotional and social kind and are aimed at enhancing the standard of living of their family and at preserving and strengthening the ties between remitters and their relatives at home (Ambrosetti et al, 2011). The theory, therefore, noted a positive relationship between the amount of remittances and migrant's income and an inverse relationship with the income of the household in the country of origin (Durand et al., 1996; Lucas and Stark, 1985; Osili, 2004).

Theories of Remittances: Several ideas are proposed on remittances to elucidate why migrants prefer to transfer funds (cash and products) to their relative back home. Solimano (2003), claims that the motives behind remittances are often summarized in four approaches. These approaches include: (I) The Altruistic Motive and (ii) The Self-Interest Motive.

The Interest Rate Theory: At high interest rates, lending or credit institutions have to contend with a larger portfolio of sub-optimal risk assets (loans) because, according to Soyibo and Olayiwola (2000), low risk investors tend to shy away from bank loans while high risk investors are the ones who apply for such loans.

2.3. Empirical Literature: As noted in Lopez-Feldman et al., (2017), comparing indexes with and without remittance income provides useful insight into whether the elimination of this income would increase inequality and/or poverty. There are three outstanding peer-reviewed works at the micro level in SSA like Nigeria. The first by Chukwuone et al. (2019) is based on a large, nationally-representative household survey, the 2014 Nigerian National Living Standard Survey (NLSS, 2004). Using the propensity score matching (PSM) technique, the authors found that both internal and international remittances reduce the incidence, depth and severity of poverty. Other minor studies that found a strong positive influence of remittance income on household poverty and inequality in Nigeria include the works of Ajayi, et al., (2019), Odozia et al., (2020), Babatunde & Martinetti, (2011), and Olowa & Shittu, (2012). On the macroeconomic level, although the literature appears rich, the empirical findings are quite mixed.

Agu (2019) for example, found a very weak link between remittances and the real sector including other components of aggregate demand with the exception of private consumption, for which the impact was marginally significant. Whereas Oduh and Urama (2018) found a negative correlation between remittances and the current account balance, a study by Ojapinwa (2012) found a strong positive effect of remittances on real GDP, labour market situation and population growth. Other important macro level analyses in Nigeria include studies by Ojapinwa and Adekunle (2013), which found a strong positive effect of remittances on fixed capital formation; Kure and Nwosu (2008); Uadiale et al., (2011) and Udah (2019) that found some strong positive effects of remittances on financial development and economic growth through loanable funds, human and material investments respectively.

3. Methodology
This study is based on the theory of investment growth rate and economic growth by Giuliano and Ruiz-Arranz(2009) and zazzaro (2012), the theory explained that investment and interest rate remain a fundamental characteristics of the global economic growth.

Model Specification: From the theoretical review contained in the theoretical framework above, we hypothesize a functional relationship between remittances and economic growth as follows:

$$GRQ = f(I, R, TOPN) \qquad (1)$$

The econometric model is

$$GRQ = a_0 + a_1 I + a_2 R + a_3 TOP + U_t \qquad (2)$$

Where; GRQ = Growth rate of output, R = Interest Rate, I = Investment Growth Rate, TOP = Openness Measure (Export plus Import and Capital Account Balance/GDP), and U_t = Error Term or Stochastic Variable. a_0, a_1, a_2, a_3 and a_4 are parameters to be estimated.

The expected signs of coefficient or a priori expectations are $a_1>0$; $a_2>0$; and $a_3>0$; Interest rate, Investment growth rate, while inflation rate is expected to have an inverse relationship with Output Growth Rate i.e. a_0, a_1, a_2, a_3 and $a_4>0$

The time lag model becomes:

$$GRQ_t = f(I_t, R_t, TOP_t) \qquad (3)$$

$$GRQ_t = a_0 + a_1 I_{t-1} + a_2 R_{t-1} + a_3 TOP_{t-1} + U_t \qquad (4)$$

Data Sources: The study obtains data from CBN statistical bulletin (2021) and World Development reports of the World Bank and related issues (2021)

4. Data Presentation, Analysis and Interpretation
This section embraces the empirical analysis and interpretation of results derived from the estimation exercise. The study examined the nexus between changes in remittance inflow and private sector development in Nigeria. This will also provide a rich background for the investigation.

4.1. Descriptive Statistics
Table 1 presents the summary statistics for all the variables used in this study, growth rate of private sector investment, interest rate, trade openness and growth rate of output are 5200.93, 17.70, 32.30 and 3.15, respectively. From the descriptive statistics, output has standard deviation of 5.47, an indicator of close fluctuation/volatility in output over time. All the variables (except growth rate of output) have positive skewnesss, kurtosis; an indication that more of the series reported lower values than the average. With high and significant J-B values, there is clear indication of non-symmetric and not-normally distributed are 2,040.9 series. The implication of this is that there is heterogeneity among the data series. Endogeneity problem is therefore expected in the models if the OLS technique is employed. This is a

clear justification for the adoption of the dynamic method of estimation (i.e. the dynamic OLS).

Table 4.1: Descriptive Statistics

	I	R	TOP	GRQ
Mean	5200.93	17.70	32.30	3.15
Median	2996.37	17.55	34.02	4.20
Maximum	12287.0	31.65	53.28	15.33
Minimum	1439.07	8.92	9.14	-13.13
Std. Dev.	3495.54	4.79	12.40	5.47
Skewness	0.71	0.25	0.37	-0.87
Kurtosis	1.88	3.75	2.25	4.64
Jarque-Bera	5.34	1.31	1.80	9.23
Probability	0.07	0.52	0.41	0.01
Sum	202836.30	690.16	1259.72	122.85
Observations	39	39	39	39

Source Author's computation (2021)

4.2. Correlation Analysis

The results of the correlation matrix used to examine the correlation between the variables are presented in Table 2.

Table 2: Correlation Statistics for all Variables Employed

	I	R	TOP	GRQ
I	1.00	-0.22	0.04	-0.02
R	-0.22	1.00	0.57	0.36
TOP	0.04	0.57	1.00	0.48
YGQ	-0.02	0.36	0.48	1.00

Source: Author's computation (2021)

In the correlation matrix, a negative relationship is observed between growth rate of private sector investment (I) has a positive correlation with the regressors, except interest rate. Invariably, high interest rate has negative co-movement on investment. Increases in them tend to cause decline in private sector investment. Output is positively correlated with the explanatory variables, with the exception of interest rate. The correlation matrix further showed that growth rate in output (Y) is positively correlated with, investment, remittances and trade openness, while it is negatively correlated with interest rate.

Unit Root Test

Following Box and Jenkins (1994), that non-stationary time series variables can be made stationary by differencing them, the variables were subjected to the first-differencing mechanism. After the first differences, the variables became stationary.

Table 1: Unit Root Stationary Test for Variables in Levels and First Difference

Variables	ADF Test Statistic (in First Difference)	Order of Integration	Remark
I	-4.386**	I(1)	stationary
R	-6.839**	I(1)	stationary
TOP	-7.478	I(1)	"
GRQ	-4.158	I(1)	"

(**) denotes stationarity at 5% significance level
5% critical value is -3.5367
Source: Authors' computation (2021)

Conclusions

This study examined nexus between changes in remittance inflow and private sector development in Nigeria. The main objective of this study is to determine the role the nexus between fluctuations in remittance inflow and economic growth in SSA. Ou results show that remittances are anti-growth. This could explained by the fact that consumption takes a greater part of remittances in Nigeria. From the analysis, in the correlation matrix, a relationship is observed between growth rate of private sector investment (I) and has a positive correlation with the regressors, except interest rate. Invariably, high interest rate has negative co-movement on investment. Increases in them tend to cause decline in private sector investment. Private sector investment is the engine for economic expansion, job creation and complements public sector investment (Santandrea et al., 2015; Ade et al., 2017; Park et al., 2016).

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