

# “Do foreign remittances encourage investment in the rural non-farm economy sector? Evidence from Igbos of Southeast Nigeria”

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| <b>AUTHORS</b>      | Emmanuel Innocents Edoun<br>Samuel Ezeanyika Ezeanyika<br>Charles Mbohwa  |
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## SECTION 2. Management in firms and organizations

Emmanuel Innocents Edoun (South Africa), Samuel Ezeanyika Ezeanyika (South Africa), Charles Mbohwa (South Africa)

### Do foreign remittances encourage investment in the rural non-farm economy sector? Evidence from Igbos of Southeast Nigeria

#### Abstract

In recent years, foreign remittances have become a major source of external development finance. In the past decade, Nigeria has become the single largest recipient of foreign remittances in Sub-Saharan Africa, receiving between 30 to 60 percent of flows into the region. However, because of the conventional view that the bulk of household income from foreign remittances is used particularly for consumption purposes, their deliberate investment by some recipients in the rural nonfarm economy (RNFE) has not yet undergone rigorous econometric analyses. The thrust of this paper is to estimate the impact of foreign remittances on the RNFE of the Igbos of Southeast Nigeria, using sample data from foreign remittance-receiving households engaged in rural nonfarm income-yielding investments. Key findings from the regression analysis show that households' ratio of foreign remittances invested in rural nonfarm activities (RNFA) to the total amount of foreign remittances received by them tend to decrease with the increase in remittances received. There is, however, a positive correlation between remittances and expenditure on the rural nonfarm sector. The remittance elasticity for investment in the sector and the marginal foreign remittances share confirm that foreign remittance-receiving households spend a higher proportion of remittances on profit-oriented RNFA.

**Keywords:** foreign remittances, investment, rural nonfarm economy, poverty alleviation, Igbos, Southeast Nigeria.

**JEL Classification:** A10.

#### Introduction

Inflows of foreign remittances have become an increasingly important source of finance in many African countries. In 2007, recorded inflows of remittances to developing countries were estimated at US \$251 billion (World Bank, 2008). Again in 2007, available records from the World Bank indicated that in developing countries as a whole, remittance were quite higher than official development assistance (ODA), and were about half as large as both net inflows of foreign direct investment (FDI) and private debt and portfolio equity. In many African countries, remittances surpassed ODA, net exports, tourism receipts, and FDI. Remittances are less volatile than other international private capital flows, are counter-cyclical, and bypass the state and official aid bureaucracies (Adelman, 2003).

Consequently, remittance studies have been taken up by policymakers and officials of multilateral institutions, by those working with non-governmental organizations (NGOs) and by social scientists. In this literature, we principally find efforts to map remittances and to measure and leverage their microeconomic contributions. A widespread presumption in recent literature is that remittances are beneficial. This view of remittances contrasts with earlier studies in this field (in the mid-1980s to the mid-1990s) that largely saw these flows as unproductive insofar as they were seen principally to

fuel consumption, some of it wasteful and conspicuous, and much of it import-dependent (Lipton, 1980; Rubenstein, 1992; Brown, 1994; Durand, Kandel, Parrado, and Massey, 1996).

There was a shift in perception in the 1980s, when the new economics of labor migration (NELM) emerged as a response to the diverging views that dominated in the previous decades. NELM viewed migration as a potentially vital source of investment capital that is important in the context of imperfect credit and insurance markets which prevail in many developing countries. Hence, migration was now considered as a livelihood strategy to overcome various market constraints, potentially enabling households to invest in productive activities and improve their livelihoods (Stark, 1991; Taylor and Wyatt, 1996).

It is our purpose in this paper to bring remittance studies into focus by examining financial management concerns that have traditionally characterized scholarship on international capital flows to the developing world, but which have largely been ignored in the remittance studies literature. To achieve this goal, this paper draws together findings from the rapidly growing multi-disciplinary study of remittances; identifies what we know, what we do not yet know, and what we still need to know about their economic, political and social consequences; and argues that there are a range of important issues of concerns raised by remittances.

This research is thus important as remittances “are emerging as an important source of external development finance” (Kapur, 2004). This is particularly because globalization is enabling migrants abroad to remain connected to their native countries, thus diminishing their loss of identity and the negative effects of separation (Page and Plaza, 2006). Consequently, remittances are now viewed as a resource or extension of the nation.

Foreign remittances are transfers of value by emigrants or their descendants to their country of origin (Carling, 2004, p. 9). It is a widely held opinion that foreign remittances are mainly spent on consumption items and as a result, very little of it is productively invested (Appleyard, 1992; Sørensen, van Hear & Engberg-Petersen, 2002; Guilamoto & Sandron, 2003; Kwadwo, Takyi & Arthur, 2006). This view seems to be oblivious of the fact that spending on the nonfarm economy sector is usually an insurance against poverty, likely to mitigate future adversities. Recent studies carried out in some African countries have shown that the investment of foreign remittances in the rural nonfarm economy (RNFE) has a multiplier effect as it impacts positively not only on consumption, but also on expenditure on human capital (family health, nutrition, clothing, etc.). Many of these studies mainly carried in rural Africa suggest that the use of the remittances has significant socio-economic effects for individuals, their families and society at large (Ellis, 1998, 2000; Ellis and Freeman, 2004; Chukwuezi, 2001; Barret, Reardon & Webb, 2001; Adi, 2003; Haggablade, Hazell & Reardon, 2006; Ezeanyika, 2007).

It was observed in this survey that the major asset of rural families in Southeast Nigeria is land. But its yield was diminishing tremendously as a result of overuse and loss of fertility. As a resultant effect, a considerable number of households now depend on foreign remittances from their relations overseas. They often remit or send a sizeable share of their incomes to their families in the origin country. In Nigeria and in many other developing countries, these foreign remittances have become a major source of finance capital.

In some Igbo households in southeastern Nigeria, foreign remittances constitute a significant source of income. With a population estimated at 30 million, it is projected that one-fifth of the Igbos of southeastern Nigeria live outside the country.

The Igbo Diaspora is a community of Igbo people outside the country. In the majority, they generously support their families and relatives in Nigeria with recurrent transfers. The available evidence indicates

that the Igbos of Southeast Nigeria (and indeed most Nigerians) overseas have strong links with each other and with their communities of origin (Nwajiuba, 2005; Osili, 2007). The survey found that the majority of Igbos in Diaspora maintained contact with their relatives and had returned to Nigeria to visit families and friends within the last one year of the survey. It has also been observed that most Igbo migrants send foreign remittances on a fairly regular basis. The findings from the household consumer survey in Southeast Nigeria show that 75% of the respondents receive foreign remittances.

The Igbos of Southeast Nigeria’s investment of foreign remittances on food production and non-agricultural activities has been recorded (Nwajiuba, 2005; Senghor and Poku, 2007). Their deliberate investment in the RNFE sector has not yet undergone rigorous econometric analyses. Thus, the aim of this article is to estimate the effect of foreign remittances on the RNFE. This is a functional strategy targeting poverty alleviation.

This article is structured into five sections. After the introduction, Section 1 provides a review of literature on the use of foreign remittances. Section 2 focuses on data and methods of analyses. Section 3 shows estimated results. Final section, which is the conclusion, also presents some implications and recommendations.

## 1. Literature review

### 1.1. Conceptual framework of foreign remittances.

Foreign remittances are financial resource flows arising from the international movement of migrants (Kapur, 2004). Foreign remittances have contributed quite a lot in countries such as the Philippine and Mexico. The funds received from relatives abroad have helped substantially to sustain the leaving conditions of those who are left home. Petkovski, Dodeva and Georgieva (2012) convincingly studied the macroeconomic effect of remittances in Southern Europe. In their analysis, they found that, remittances play a pivotal role in foreign exchange activities in that part of Europe. Goschin (2014) who considered remittances as an economic development factor conducted an empirical study in Central and Eastern European countries. In his findings, he inferred that, remittances could be viewed as capital flows that have macroeconomic growth potential. This could certainly encourage investments in rural and urban areas of any given countries depending on the volume of the capital made available to potential investors. It is therefore clear from the above that, remittances inflows may play the same developmental role in Egypt, Nigeria, Cameroon, Kenya and South Africa if managed effectively

through decentralization principle to support local development initiatives, be it in urban or rural areas (Edoun, 2012).

These remittances could be formal, that is, through official channels of transfer (money, assets) or informal or in non-monetary forms, which could include clothing, gifts, tools and equipment. The position that foreign remittances play a significant role in recipient households in Africa, and indeed, most of the developing world has been established (Carling, 2005; Senghor & Poku, 2006; Palme & Tamas, 2006; Senghor & Poku, 2007). It has been observed that foreign remittances flows are becoming increasingly important to the economies of the migrant-sending countries. This notwithstanding, data on the nature, volume and use of remittances is scant. The officially recorded foreign remittances represent only the tip of the iceberg (Bilsborrow, Hugo, Oberai & Zlotnik, 1997; World Bank, 2004, 2006).

Foreign remittances contribute to the socio-economic development of senders' families and by extension, their communities through regular transfers (Senghor & Poku, 2007). Total foreign remittances to Africa amounted to US \$9 billion in 1990, US \$ 14 billion in 2003 and US \$ 16 billion in 2005 (Carling, 2005). In Sub-Saharan Africa (SSA), Nigeria is the highest recipient, taking between 30 and 40 percent of the region's receipts. Table 1 below shows the flow of workers' foreign remittances to Nigeria and its share in imports and exports of goods.

Table 1. Flow of workers' foreign remittances and its share in imports and exports of goods in Nigeria

| Year | Foreign remittances | As a percent of |         |
|------|---------------------|-----------------|---------|
|      |                     | Exports         | Imports |
| 1998 | 1544.000            | 16.7            | 16.2    |
| 1990 | 1628.000            | 10.0            | 15.0    |
| 2000 | 1705.000            | 8.5             | 18.7    |
| 2001 | 1303.000            | 7.6             | 41.5    |
| 2002 | 1421.000            | 9.0             | 13.0    |
| 2003 | 2086.000            | 6.9             | 14.8    |
| 2004 | 2751.000            | 11.4            | 23.3    |

Source: Global Economic Prospects (2006). *Economic Implications of Remittance and Migration*. Washington, DC: World Bank.

Note: The percentage of foreign remittances to exports and imports were computed from Central Bank of Nigeria: Annual Reports and Statements of Accounts (2002) and (2004).

Motivation to remit could be conceptualized into three major schools of thought. They are risk sharing; altruism or livelihood; and risk sharing with altruism. According to the risk sharing school, foreign remittances are installments for individual risk management (Stark and Lucas, 1988). The altruism or livelihood school considers foreign remittances as

obligation to the household and they are sent out of affection and responsibility toward the family (Chimhowu, Piesse & Pinder, 2005). The migrant feels like a part of a spatially extended household that is engaged in reducing the risk of poverty by diversifying its activities (de Haan, 2000; de Haan & Rogaly, 2002; Agrawal & Horowitz, 2002). The third school perceives both altruism and self-interest as important factors in the motivation to migrate and remit (Ballard, 2001; Clarke & Drinkwater, 2001).

With regards to the kind of impact resulting from foreign remittances, two major perspectives are emerging in literature. One is the neo-liberal-functional approach which posits that foreign remittances are beneficial, particularly to the individual, the household, the community and the national levels (Orozco, 2002; Skeldon, 2002; Ratha, 2003). It is perceived that foreign remittances are very important in developing local level capital markets and productive infrastructure. They can also increase the effective demand for local goods and services. The other approach is the historical-structuralist approach. It considers foreign remittances as a means of creating a dependence syndrome between the sending and receiving countries (Portes & Borocz, 1989). The belief here is that foreign remittances cause inequality in households and macro-economic distortion, particularly in countries with low GDP.

## 1.2. Rural nonfarm economy and development.

For the Nigerian economy, the scale of foreign remittances and the way in which they are used is very important. The most widely held view is that foreign remittances are mainly spent on consumption and other unproductive or personal items. This opinion stresses that foreign remittances are dispensable and therefore usually squandered. However, such a pessimistic view is gradually changing. A number of recent studies have emphasized that migrants' foreign remittances can function as investment capital in the origin country (Galor & Stark, 1990; Dustmann & Kirchkamp, 2002). Some of these studies posit that for many Nigerian families, the transfers that migrants send from abroad have induced a visible expansion of their economic and social opportunities. This has been translated into some investments in the non-agricultural sector which seem to increase the overall importance of investment in human capital (Carling, 2004; Nwajiuba, 2005; Osili, 2007). Besides, it has been strongly argued that as the material well-being of those receiving foreign remittances improves, expenditure of foreign remittances on food items should not be considered as simply unproductive because they contribute significantly to the formation of human capital needed for development (Serageldin

et al., 1983; Straubhaar, 1985; Choucri, 1986; Berry, 1989, 1993; Hart, 1995; Bryceson, 1996; Ellis, 1998).

Findings from studies conducted in Africa indicate that there is a positive correlation between foreign remittances, the growth of the RNFE and education (Atchoerena & Gasperini, 2003; Avila & Gasperini, 2005). Surveys of estimates for Zimbabwe by Lachaud (1999) and de Haan (2000), for Ghana by Schoorl et al. (2000), for Somalia by Lindley (2005), and for Ghana and North Africa by Adams (2006) show that foreign remittance-receiving households spend a considerable proportion of total income on the RNFE and education.

Foreign remittances play an important role in alleviating acute, extreme and disproportionate poverty and in smoothening income inequality (Ezeanyika, 2006). They could also affect a wide range of economic decisions made by the recipients in their drive to mitigate the adversities of poverty (Adi, 2003; Ezeanyika, 2007). A study of Southeastern Nigeria conducted by Nwajiuba (2005) reported that although most respondents declined to reveal specific amounts, all agreed that foreign remittances were an important means of meeting family needs. He estimated that about 20 to 65 percent of family needs were met through foreign remittances. This is definitely a significant contribution to Nigeria's economy. With regards to the use of foreign remittances, Nwajiuba (2005) also reported that they were put to some household and community uses which impact on livelihoods. He stated that the predominant use of these remittances was partly for farm purposes and non-agricultural activities.

Surveys can be used to understand how patterns of foreign remittances, transfer and expenditure are associated with other characteristics and behaviors of foreign remittance senders and receivers. However, surveys on foreign remittances are few and far in between in relation to the volume and complexity of international remittance flows, and their value is often reduced by methodological problems (Bilsborrow, Hugo, Oberai & Zlotnik, 1997). The information from such surveys can be useful for examining the social and micro-economic dynamic of foreign remittances, to assess the importance of unrecorded transfers in total flows, and to determine the spending and investment decisions made by the recipients.

In Southeast Nigeria, no rigorous analysis of the use of foreign remittances on the RNFE has been done so far. The existing evidence shows only a descriptive analysis of the dataset. The proportion of foreign remittances spent on the RNFE can be understated, if remittance dataset aggregates all foreign remittance-receiving households. One cannot expect recipients

not engaged in non-agricultural activities to spend much on rural nonfarm activities (RNFA). For the avoidance of aggregation problem, this study places emphasis on a set of foreign remittance-receiving households that invest it mainly on profit yielding activities in the RNFE.

*1.2.1. Empirical studies on the economic impact of foreign remittances.* The effort to conduct empirical studies capable of explaining the impact of foreign remittances on economic and social development was first made in the early 1990s. The researchers found that households that were ensured by foreign remittances flows tended to shift their portfolios towards riskier investments. Most of these studies are generalist in scope and none is African-centered (Adams, 1991; Stark, 1991). The necessity for an African survey based on the continent's most populous nation, Nigeria is appropriate and timely. Situating it in Southeast Nigeria is dynamic because of the mobility of the people.

## 2. Data and methods of estimation

The data is randomly drawn from 125 foreign remittance-receiving households that were identified as participating in the RNFE. Data collection was carried out by the author (during 2006-2007) in Urualla autonomous community (in Orlu Senatorial district) and Ubahaeze autonomous community (in Owerri Senatorial district) of ImoState in Southeast Nigeria. The goal of the survey is to analyze the expenditure of foreign remittances on the RNFE. Respondents were asked to give information on their yearly income from employment, yearly amount of cash remittances received from overseas, yearly amount of remittances spent on RNFA, number of family members in the age group 7-20 who attend school, number of children in the 7-20 age bracket who do not go to school, father's occupation (dummy), father's level of education, and the total number of years the mother completed in school.

While the average years of schooling of the father were 9.5, the average number of years of schooling the mother completed was 7 (see Table 2). Excluding foreign remittances, households got, on the average, about N70, 144 per year from employment. Also on average, households received around N200, 387 per year from remittances. Despite the assertion that respondents might understate the total amount of (cash) remittances received, the proportion of yearly average remittances received by households to yearly average income from employment is not wide. This shows the largeness of the size of remittances from abroad. The share of remittances that was spent on investment in the RNFE was

around 26.2% on average. The average number of children between the age 7 and 20 who were not attending school was only around 0.6.

Table 2. Descriptions, mean and standard deviation of variables

| Variables | Description   | Mean   | S.D.    |
|-----------|---|--------|---------|
| Y         | Yearly household income from employment                       | 7,144  | 11,404  |
| R         | Yearly foreign remittances received by households             | 20,387 | 14,001  |
| SF        | Years of schooling of the father completed                    | 9.5    | 5.06    |
| SM        | Years of schooling of the mother completed                    | 7.0    | 5.36    |
| CS        | Number of children between age 7 and 20 who are in school     | 3.36   | 1.64    |
| CNS       | Number of children between age 7 and 20 who are not in school | 0.58   | 1.64    |
| RE        | Yearly remittances expenditure on the RNFE                    | 5.719  | 6,111.5 |
| FOC       | Father's occupation, coded 0 for unskilled and 1 for skilled  | 0.328  | 0.47    |

Source: Authors' calculation.

It is difficult to assess the monetary value of in-kind remittances received by households and thus the data only capture cash remittances.

In this study, the equation of interest is derived from the economic theory of consumer demand and thus a modified Engel function. The dependent variable used in this study is the "RNFA ratio", and this variable measures the proportion of remittances which are allocated to the RNFE (i.e. household expenditure on the RNFE out of remittances received). Since our focus is on foreign remittance-RNFE relationships, the chosen mathematical form of the model must have a slope that is free to change with foreign remittances. What this implies is that the elasticities of foreign remittances as well as the marginal propensities (out of foreign remittances) to invest in the RNFE need to be calculated. Hence, a semi-log ratio function is chosen as a basic functional form. The equation for this can be expressed as:

$$\frac{RE}{R} = a + b(\ln R),$$

where:  $RE$  is yearly foreign remittances expenditure on the RNFE,  $R$  is yearly (cash) foreign remittances received by households,  $\ln R$  is logarithm of cash foreign remittances received by households and  $b$  is a parameter for estimating the RNFE expenditure out of foreign remittances.

In using this functional form to compare the expenditure behavior of households (i.e. households' expenditure on the RNFE out of foreign remittances) with different sizes of foreign remittances, a set of

household characteristic variables should be taken into account. Considering *a priori* information, the observed differences in foreign remittances' expenditure on the RNFE are attributed to household income from employment, number of children between the age 7 and 20, parents' years of schooling, father's occupation, and some unobservable characteristics. The complete model can be written as:

$$\frac{RE}{R} = a + b(\ln R) + c(\ln Y) + d(CS) + e(CNS) + f(CF) + g(SM) + h(FOC) + u.$$

The independent variables  $R$  and  $Y$  are logged at base  $e$  (natural logarithm). From this equation, the foreign remittances elasticity for investment in the RNFE ( $E$ ) and the average and marginal remittances shares ( $ARS$  and  $MRS$ , respectively) can be derived as follows:

$$E = \left[ \left( \frac{R}{RE} \right) (b) \right] + 1$$

$$ARS = \frac{RE}{R}; MRS = (ARS)(E).$$

The elasticity ( $E$ ) of the functional form  $\frac{RE}{R} = a + b(\log R)$  can be written as:

$$E = b \left[ \frac{R}{RE} \right] + 1.$$

Since  $MRS = E \left[ \frac{RE}{R} \right]$  and  $\frac{RE}{R}$  is  $ARS$ ,

$$MRS = E(ARS).$$

$$\left[ \frac{bR}{RE} + 1 \right] \left[ \frac{RE}{R} \right] = \left[ \frac{bR}{RE} \cdot \frac{RE}{R} \right] + \left[ \frac{RE}{R} \right],$$

$$b + \left[ \frac{RE}{R} \right] = (b) + (ARS).$$

$$\text{Therefore } MRS = E \left[ \frac{RE}{R} \right] = (b) + (ARS),$$

while  $E$  refers to the proportional change in the amount of remittances spent on the RNFE as a ratio of the proportional change in the total amount of remittances households receive,  $MRS$  shows the amount that expenditure on the RNFE (out of remittances) changes in response to an incremental change in remittances received by households (Adams, 1991).

### 3. Estimated results

From the regression results presented in Table 3, it is evident that foreign remittances receiving households

spend part of the remittances on the RNFE, but the RNFE ratio decreases with the increase in foreign remittances received. With remittances' expenditure on the RNFE as the numerator of the dependent variable, the negative and significant terms for yearly remittances received by households indicate that as total remittances rise, the share of spending on the RNFE falls. This implies that households with high remittances spend a small proportion of their foreign remittances on RNFE on average than those who receive low foreign remittances. As can be seen in Table 3, a 1% increase in remittances received leads to a 0.173 percentage points decrease in the RNFE ratio.

Table 3. Regression results (dependent variable: household)

| Expenditure on the RNFE out of foreign remittances (i.e. the RNFE ratio) |           |           |
|--|-----------|-----------|
| Variable   |           |           |
| Constant   | 1.485     | (3.989)   |
| ln(R)  | -0.173    | (15.54)*  |
| ln(Y)  | 0.03915   | (15.54)*  |
| CS   | 0.03209   | (2.440)** |
| CNS  | -0.00546  | (-0.226)  |
| SF   | -0.0118   | (-1.765)* |
| SM   | 0.004664  | (0.838)   |
| FOC  | 0.06022   | (0.969)   |
| R <sup>2</sup> (adjusted)  | 0.417     |           |
| F-value  | 13.672*** |           |
| Sample size  | 125       |           |

Notes: Values in parentheses are *t*-statistics. Asterisks indicate level of significance; \* significance at 10%; \*\* significance at 5%; \*\*\* significance at 1%. Variables *R* and *Y* are logged. Source: Authors' calculation.

The positive relationship between households' earnings (excluding remittances) and the RNFE ratio indicates that families who get higher income spend a higher proportion of remittances on the RNFE, and vice versa. Since rich families can cover the cost of living from the earnings received, they

can spend a higher proportion of their remittances on profit yielding activities in the RNFE. However, for those who earn low salary, the share of remittances that is spent on the RNFE is also low because it is difficult for such families to spend much of their foreign remittances on the RNFE without having enough to consume. Therefore, an increase of 1% in household income increases the RNFE ratio by around 0.04 percentage points. The estimated regression shows that the RNFE ratio increases by 0.03 if a household invests in RNFA. This is expected because families that invest in RNFA spend more foreign remittances on the RNFE. So long as the expenditure of foreign remittances on RNFE is confirmed, the investments in the RNFA will definitely influence the share of foreign remittances that is spent on the RNFE. Father's level of education has a negative effect on the RNFE ratio, though not important to have a significant effect. Each additional year of father's education decreases the RNFE ratio by 0.0118. This is due to the fact that the private rate of return on an additional year of RNFA is quite substantial and thus parents can pay the cost of schooling for their children out of their earnings.

Table 4 shows the remittances' expenditure behavior on education for the 125 remittance-receiving households. Remittance-receiving households are first ranked into five quintile groups on the basis of remittances received. The average in each quintile is evaluated on the basis of the size of remittances received by households. The above findings are consistent with Engel's Law. According to Engel, consumers will tend to spend an increasing proportion of any additional income upon luxury goods and a smaller proportion on stable goods; so that a rise in income will lower the overall share of consumer expenditure spent on stable goods (such as foodstuffs) and increase the share of consumer expenditure on luxury goods.

Table 4. Remittances' expenditure behavior on education for remittance-receiving households

| Households ranked by remittances received (%) | Households in each group (%) | Mean of remittances received (in Naira) | Mean of remittances' expenditure on education (in Naira) | Remittance elasticity shares to | Marginal remittances education |
|---|------------------------------|---|--|---------------------------------|--------------------------------|
| Lowest 20%                                    | 24.0                         | 1,100                                   | 763.3  | 0.75                            | 0.52                           |
| Second 20%                                    | 24.0                         | 2,197                                   | 1,314.7  | 0.71                            | 0.42                           |
| Third 20%                                     | 12.0                         | 3,434                                   | 1,664.7  | 0.64                            | 0.31                           |
| Fourth 20%                                    | 22.4                         | 6,885.7                                 | 2,280.7  | 0.48                            | 0.16                           |
| Top 20%                                       | 17.6                         | 24,991                                  | 3,771.4  | 0.15                            | 0.02                           |
| All   | 100                          | 7,139.67                                | 3,487.73   | 0.64                            | 0.31                           |

Source: Authors' calculation.

Households in the poorest quintile group spend 52% of their increments to expenditure on the RNFE, but those in subsequent groups spend smaller proportions. At the mean level of foreign remittances,

households devote 31% of their increments (of remittances) to the RNFE. This implies that foreign remittance-receiving households spend 31 kobos on the RNFE, if they get one extra Naira of foreign

remittances. Since we do not have any evidence for the overall uses of foreign remittances, it is difficult to know whether the remaining part of remittances received is used exclusively for consumption or for investment purpose. Therefore, a further study on this area is essential.

Similarly, foreign remittances elasticities for expenditure on the RNFE are less than one for all quintiles, implying that the amount of foreign remittances spent on the RNFE is inelastic with respect to the total amount of remittances received by households. On average, a 10% increase in the total amount of foreign remittances received would increase the amount of remittances spent on the RNFE by 6.4%.

### Conclusion, implications and recommendations

In Nigeria, migrant workers' foreign remittances play a significant role in the country's economy. Domestic output (GDP) is substantially augmented by foreign remittances. Many families in Southeast Nigeria depend on foreign remittances for their livelihood. There are widespread criticisms of dependency on migrant foreign remittances. The main argument is that foreign remittances are 'invested' on consumption and other unproductive spending. However, such a broad and generalized view is no longer tenable, as expenditures on the RNFE and education represent investment in poverty alleviation and human capital development. Besides, those consumption goods that have a positive impact on health, education and training can no longer be classified as unproductive.

To critically assess the expenditure of foreign remittances on the RNFE in Southeast Nigeria, data were collected from foreign remittance-receiving households that have children between the age of 7 and 20. From the analysis carried out, it can be concluded that households with higher foreign remittances tended to spend more on the RNFE than households with lower foreign remittances, but that the share of expenditure on the RNFE (out of remittances) in the total remittances received tended to vary inversely. As a whole, the proportion of each

additional Naira of household income from foreign remittances that is used for expenditures on the RNFE is less than one (but still positive), implying that an increase in foreign remittances leads to a smaller increase in expenditure on the RNFE. The positive relationship between household's income (excluding remittances) and RNFE ratio indicates that the opportunity to spend more foreign remittances on the RNFE is relatively higher for families who earn higher income.

Since the amount of foreign remittances that is spent on the RNFE increases with the increase in foreign remittances received, a strategy that motivates emigrants to remit more is essential. For instance, the introduction of attractive exchange rate system is one among different strategies for boosting the flow of foreign remittances. In addition, improvement in transfer system, leading to quick and easy services, and reasonable charge, is going to have a positive impact on the flow of foreign remittances. Strategies for directing foreign remittances to investment in small and medium-scale enterprises also have an indirect positive effect on the RNFE ratio because investment usually brings higher income and higher income, in turn, results in higher RNFE ratio. Finally, the maintenance of sustainable national peace is fundamental to development in general and to efficient and productive use and allocation of foreign remittances in particular.

The study acknowledges the importance of further research on the use of foreign remittances other than for the RNFE. It is important to collect the necessary data and run a regression analysis by spending category.

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