Urban Rural Pattern of Remittances and Effects on Food Security of Rural Households in Nigeria

Temitayo Adenike ADEYEMO and Oluwafunmiso Adeola OLAJIDE
Department of Agricultural Economics, University of Ibadan, Nigeria

Abstract

Remittances form a large part of the income sources of households in Africa, and especially in Nigeria. Relatives from abroad and in other urban areas serve as sources of formal, and informal, regular and occasional sources of extra income for the rural households. Thus, such incomes could be a substantial part of the family decision making matrix. The study identified the pattern of remittances that come from the urban areas in terms of cash transfers, food transfers and other forms of transfers. The study examined the extent to which such remittances determine the food security status of rural households, in terms of the food poverty line and their expenditure on basic food groups. Using the Nigerian Harmonized National Living Standard Survey, (HNLSS), 2009/2010 as the data source, the study revealed that remittances flow more from the urban to the rural areas. However, with the increased urbanization process and the line between urban and rural being blurred, the study showed that certain parts of the urban areas also receive remittances with implication for their wellbeing. The results also show that these remittances are highly correlated with dimensions of well being, such as food security. With food poverty line of N44346.73, from the data, it is seen that rural areas have more households below the line. The presence of remittances as additional income or food sources was found to raise rural households above the food poverty. The study provides policy relevance in terms of the need for development of more structured means of flow of funds from urban to rural areas, especially in the provision of infrastructures that could also aid economic development in the rural areas.

Key Words: Urban, Rural, Remittances, Pattern, Food Security

Introduction

Food security exists when all people at all times have access to safe nutritious food to maintain a healthy and active life (FAO, 1996, 2006). This definition brings to the fore the four dimensions of food security- availability, access, utilization and sustainability. Although all dimensions are important, the prevalent problem is the situation where households do not have access to the kind of food they need for nutrition and sustainable living, (Baro, 2002). Access here presupposes the ability of the households to have purchasing power (in terms of income or assets) to take the available food within their immediate environment.

In Nigeria, as in most developing countries, remittances form a large part of the income of rural households, (Akay et al, 2012, Olowa, 2013). The incidence and depth of poverty has been found to decrease with an increase in remittances from household members across the country, (Olowa, 2013). Foreign remittances have also been found to be welfare improving in Nigeria, (Fonta et al, 2011). Remittances have also been found to have positive effects on the wellbeing of families of individuals who have migrated from the hometowns in China, Akay et al, 2012). This study differs in exploring the effect of remittances on the food security status of rural households in

Nigeria, using the food poverty line of N44346.73 of the Nigerian Harmonized National Living Standard Survey, 2009

The data, the Nigerian Harmonized National Living Standard Survey is the latest in the survey of living standards, wellbeing and poverty in Nigeria. The data contains a total of 34, 769 sample, and out of which 25,442 are rural households. The representative sample is the household head.

The study explored the relationship between the different remittances available to rural households and whether they are food poor or food secure. Specifically:

-Identify the different levels and types of remittances by the socioeconomic characteristics of the rural households.

-Determine the effects of remittances and other socioeconomic characteristics of the households on their food security level.

Material and Methods

1. Descriptive statistics was used for the first objective. Tables and graphs were used to present the socioeconomic characteristics, remittance flow and the link between remittances and the socioeconomic characteristics of the rural households' heads.

2. Rural Household Food Security Level; Foster, Greer and Thorbecke (1984) (FGT) class of poverty measures was adopted with slight modification using per capita food expenditure of households (FAO 2003a; Omonona and Agoi, 2007). This is defined as:

$$Pi = \frac{1}{N} \sum_{i=1}^{q} \left[\frac{Z - Y_i}{Z} \right]$$

Where,

$$Gi = \left[\frac{Z - Y_i}{Z} \right] = \text{food expenditure deficiency of household i}$$

Head count ratio (H) = q/N

Z = food security line (2/3 mean per capita food expenditure), q is the number of households below the food security line, N is the total number of households in the total population, Yi is the per capita food expenditure of household i, P is the extent at which a household is food insecure (food insecurity gap short fall index). Thus,

Food poor households = 1, if per capita food expenditure < food poverty line

Food non poor households =0, if per capita food expenditure >= food poverty line

3. The Probit regression

Probit regression was used to determine the effects of cash remittances and other socioeconomic characteristics on food security level of the households. The general representation of the probit is given as:

$$y_i = \alpha_1 + \beta_i R_i + \delta_i X_i + \mu_i \ldots\ldots\ldots 1$$

y_i is the vector of the dependent variable (food security status of household), Food poor ==1, Non Food Poor =1

α, β, δ are the vectors of parameters to be estimated

R_i is the vector of the remittances, R1 is cash remittance, R2 is food remittance, R3 is other remittances

X_i is the vector of the socioeconomic characteristics of the household head in the sample.

μ_i is the vector of the error term in the equation.

Results and Discussion

The socioeconomic representation of the rural households reveals that there are more male household heads (86.6%) than female (13.4%). Most of the household heads are married (either in monogamous or polygamous relationships). Most rural household heads do not have any form of formal education (53.6%), followed by primary education (23.6%); college degree graduate

make up only about 6% of the rural households. The result also shows that the average age of rural household head is 48 years old, with household size of 5 members. Average per capita expenditure on food is given as N559, 917.6, while the food poverty line is N44, 346.73. The mean cash, food and other remittances are estimated at N15, 277.25, N2367.58 and N959.16 respectively, while total remittance is on the average of N18, 603.99. On the whole, cash remittances flow more to rural households than other types of remittances.

Remittance patterns based on selected socioeconomic characteristics are presented. In terms of age category of household heads, household heads within the 30 to 60 years age bracket receive more remittances followed by those who are at least 30 years old. The results also show that female headed households receive more cash and food remittances than male headed households. Households with at least 3 members receive more remittances than other household size categories.

The probit regression, presented in Table 1 shows the effect of remittances and other socioeconomic characteristics of the rural households on their food security level.

Table 1

Variables	Coefficient	Marginal Effects
Cash Remittances	-3.04e-07 (6.01e-08)***	-1.08e-07(.00000)***
Food Remittances	2.59e-07(1.47e-07)*	9.22e-08 (.00000)*
Other remittances	-6.16e-07 (3.87e-07)	-2.20e-07 (.00000)
Sex of Household Head (Male= base). Female	-.1833136(.0369561)***	-.0672596 (.0139)***
Age ($\leq 30\,years$ =base)		
31-60 years	.0874792(.0250085)***	.0313586 (.00901)***
$\geq 61\,years$	-.0166225(.0302662)	-.0059428 (.01085)
Household Size (≤ 3 = base)		
4-6 member	1.092545(.0206218)***	.3567027(.00608)***
$\geq 7\,members$	1.73049 (.0299832)***	.4291347(.00467)***
Educational Level (None = base)		
Primary	-.3156669 (.0222719)***	-.1162986 (.0084)***
Secondary	-.3877214 (.0268149)***	-.1454034 (.01039)***
Post Secondary	-.3795094 (.0386376)***	-.1436873 (.0152)***
College	-.6997436(.0579363)***	-.27101 (.02255)***
Marital Status (Monogamous marriage = base)		
Polygamy	-.017659 (.114286)	-.0063241(.04109)
Informal Union	-.2661846 (.114995)*	-.0999054(.04486)*
Divorced	-.2598385 (.0541222)***	-.097232 (.02102)***
Widowed	-.2560879 (.0415557)***	-.0951107 (.01594)***
Constant	-.1653511 (.0241044)***	

Source: Researchers' Computation, 2013
   i.   Figures in parentheses are the standard errors
   ii.   ***,**, *, represent significance at 1%, 5% and 10% levels respectively

Cash remittance is seen to significantly reduce the probability of the rural household being food poor by a factor of -3.04e-07, while food remittances actually increase the probability of being food poor. Being in female headed households reduces the probability of being food poor than

being in male headed households. This is obvious since female headed households receive more remittances than male headed households. The larger the household size, the higher the probability of the household being food poor. Increased educational attainment of the household head increasing reduces the probability of being food poor.

The marginal effects show the result of a marginal change in the independent variable and their effects on the dependent variables. It is seen that a marginal increase in cash remittance will significantly reduce the probability of being food poor for rural households. Other results follow the same pattern as the explanation of the coefficient above.

Conclusions and Outlook

The study reveals that the pattern of remittance flows from urban to rural households involve more of cash remittances than other types of remittances.

-Cash remittance is found to significantly decrease the probability rural households' being food poor

-Education significant reduces the probability of being food poor, while increased household size significantly increases the probability.

- Policy recommendations is geared towards improving rural infrastructure, human capital (in terms of education) and ensure more formal flow of remittances that will be useful in building rural community in order to ensure more sustainable welfare and food security.

References

Akay A., Giulietti C., Robalino J.D. and Zimmermann K. F., 2012, 'Remittances and Wellbeing among Rural to Urban Migrants in China'. Institute for the study of Labour (IZA), Discussion Paper, DP 6631.

FAO, (1996): Declaration on world food security. World food summit, Food and Agriculture Organization, Rome.

FAO, (2006): Food Security. In FAO Policy Brief: Food and Agriculture Organization of the United Nations.

Fonta M. William, Onyukwu E Onyukwu and Nwosu O. Emmanuel, 2011, 'International Remittance Inflow and Household Welfare: Empirical Evidence from Nigeria'. Research Journal of Finance and Accounting, Vol 2, No 3.

Omonona B.T and Agoi G.A. (2007): An Analysis of Food Security Situation among Nigerian Households: Evidence from Lagos State, Nigeria. Journal of Central European Agriculture, Vol 8, No 3, PP 397-406

Olowa W. O., Awoyemi T. T., Shittu A. M., and Olowa A. O., 2013, 'Effects of Remittances on Poverty among Rural Households in Nigeria'. African Journal of Agricultural Research, Vol 8, No 10, pp 872-883.