The Impact of Remittance on Poverty: Evidence from the South African National Income Dynamics Study (NIDS)

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Abstract

The study uses two approaches to assess the impact of remittance on poverty in South Africa. The first approach compares the level of poverty between remittance receiving households and non-receiving households using the FGT index. The second approach uses the logit regression model to estimate how remittance determines the probability of falling into a state of poverty. The findings show that remittance non-receiving households have a higher head count ratio compared to remittance receiving households. The probability of remittance non-receiving households being in a state of poverty is also higher than remittance receiving households. Whereas the poverty gap is higher for remittance receiving households compared to remittance non-receiving households, both groups of households have the same poverty severity level.

Keywords: Migration, Foster-Greer-Thorbecke, Logistic regression, Upper Bound Poverty line.

Introduction

Remittances from migrants have grown into an important source of foreign currency for developing countries across the globe. Official estimates place the remittances for developing countries at US$ 334 billion (World Bank, 2010). Unrecorded remittances are assumed to amount to more than 50 percent of the official records. Overwhelming evidence indicates that remittances reduce poverty. This paper makes use of the South African National Income Dynamics Study, 2012 to determine the impact of remittances on poverty in South Africa. The next section reviews the

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existing literature on remittances and poverty. This is followed by an explanation of the methodology and findings of the study. Finally, the policy implications of the research are discussed.

Literature Review

Poverty and Migration Patterns in South Africa

Migration and poverty are two important development issues globally. To date not much literature has focused on the link between these two issues. The Human Development Report 1990 (UNDP, 1990) estimated that 3.1 percent of the 7 billion world population was living and working away from their birth country in 2008 and that this number is rising. Recent trends indicate that 41 percent of the migrants are based in developing countries and that from the total number of migrants, 47 percent were moving from one developing country to another developing country (United Nations, 2011). This trend in global migration is attributed to regional income inequalities, and the rise in demand for both skilled and unskilled labour.

The Southern Africa region has for a long time had steady cross-border migration patterns for labour purposes. In South Africa, several factors are considered to be responsible for the changes in mobility patterns that are currently being experienced in the 21st century. One of the key reasons is the end of apartheid, a system which curtailed the mobility of people within the country and limited the migration of foreigners into South Africa (Crush et al. 2005). South Africa is a major source of skilled labour in the Southern African Development Community (SADC) region and a major labour exporter into countries such as Botswana with estimates indicating that there are more South Africans working in Botswana than the reverse (Crush et al., 2005).

The most common form of human mobility in South Africa as in the rest of the SADC region has been rural-urban migration (Crush et al. 2005). This is thought to have a direct impact on rural livelihoods through remittances. Rural or peri-urban households, particularly among the black African population, are highly likely to have one, and sometimes more, migrants who send money back from urban workplaces to the remaining household members (Kok and Collinson, 2006). The main reasons for migration within the country are education and employment.

The poverty level in the sub-Saharan region is one of the highest in the world. The World Bank estimates that at least 314 million people in the

region live below the international poverty line of US$ 1.25 per day. This is a clear indication that far too many people lack access to adequate food, healthcare, education facilities, and other basic human necessities. Although South Africa has experienced a slight fall in poverty levels recently, poverty rates in the country are still very high with nearly half of the population (48 percent) living in poverty. The Eastern Cape and Limpopo are two of the poorest provinces both having poverty rates of 64 percent, while the Western Cape and Gauteng provinces have the lowest poverty rates at 23 percent and 30 percent, respectively. Rural areas are the worst affected with poverty levels as high as 77 percent (Leibbrandt et al., 2010). Moreover, in racial terms, the black population is more poverty stricken than the other races with an estimated 56 percent living below the international poverty line.

Trends in Remittances for Developing Countries

The term "remittance" describes the flow of money or goods from a migrant to their place of origin, It is estimated that between 2004 and 2008 remittances grew by an of average 17.7 percent with the highest increase being in Europe and Central Asia at 32.5 percent. In sub-Saharan Africa the increase in remittances has been estimated to be 29.3 percent (United Nations, 2011). Total remittance inflows in developing countries across the globe amounted to US$ 338 billion, with sub-Saharan Africa receiving the lowest percentage of this amount.

An estimated half a billion people, or nearly 8 percent of the world's population, were said to be the beneficiaries of remittances in the year 2005. Between 2002 and 2007, a 107 percent increase in remittances was experienced in the developing countries, and mostly the low and middle income ones. In South Africa, the remittance amounted to US $0.7 billion and was much lower compared to Nigeria, the highest earner at US $3.3 billion (Vargas-Lundius et al., 2008).

Estimates on remittances are generally considered to be inaccurate, and under-reported, because they include only amounts sent through official channels such as banks and money transfer services; they fail to include remittances through unofficial channels, such as money sent home with returning migrants, which are estimated to constitute an additional 50 percent (Gupta et al. 2007). The cost of sending remittances is very high, with the sub-Saharan region having the highest rates. Based on the World

Bank's 2011 estimates, the average cost of sending $200 in the region amounted to US$24. 8 which is double the cost in South Asia where it costs only US$ 12.3 (Ratha, 2012). Currently there is no officially recognised framework for determining in kind remittances including goods.

Remittances, have become the second most important source of external funding after Foreign Direct Investment (FDI) in developing countries (World Bank, 2004). Most of the remittances go to rural households and are mainly related to intra-regional migration, especially in Western and Southern Africa (Vargas-Lundius et al., 2008). This indicates that migrant workers have a major impact on the economies of developing countries, particularly African countries where remittances as a proportion of the GDP were estimated to constitute a 0.9 percent GDP increase between 1995 and 2009.

Studies based on household data in various sub-Saharan African countries have found that the majority of remittances go towards meeting basic consumption needs. A survey of migrants indicates that 69.7 percent of migrants send remittances to their home countries to meet essential household needs (United Nations, 2011). Remittances are mainly personal transactions to relatives and friends, and they make a significant contribution to the welfare and of the recipient households. It has also been found that remittances have a multiplier effect due to an increase in household expenditure and welfare (Gupta et al., 2007).

Impact of Remittances on Poverty

Remittances play an important role in reducing poverty. They do not, however, appear to have a similar effect on inequality since it is argued that migrants, particularly international migrants, do not come from the poorest households (Vargas-Lundius et al., 2008). Nevertheless, recent studies in the Pacific region suggest that the negative impact of remittances on income inequality is only short term as the formation of networks helps reduce migration related costs making it affordable for poor people (Brown, 2008).

Remittances are expected to lessen poverty since they can be received directly by the poor. Evidence suggests that remittance-receiving households generally have higher incomes and greater expenditure, as well as a lower likelihood of suffering extreme poverty, compared to households that do not receive remittances (Ratha, 2013). The impact of remittances

on the reduction of poverty can be understood from both the micro and macro perspectives (United Nations, 2011). While poverty may be a motivating factor in migration and subsequent incoming remittances, the relationship between remittances and poverty does not appear to be unidirectional. In Senegal, for instance, poor households pool resources to cover the migration costs for skilled members who in turn remit their income, creating a steady flow of income to supplement the poor household (Gupta et al. 2007). Other research on the dynamics of poverty and migration suggests that economic conditions such as the GNP per capita and the distribution of income play important roles in international migration. In an empirical analysis using 233 poverty surveys from 76 developing countries, 24 of which are in sub-Saharan Africa, it was found that a 10 percent increase in remittances as a percentage of GDP is related to slightly more than a 1 percent decline in the poverty headcount and poverty gap which measures how far below the poverty line one's income lies (Gupta et al. 2007).

Evidence from the Philippines reveals that wealthier households derive a larger share of their income from international remittances. Data from the Family Income and Expenditure Survey 2000 (FIES) indicate that high income households have a higher amount of income from international remittances as a proportion of the total household income (Bargess and Haksar, 2005). However, the FIES includes both remittances and income from investments and therefore may be an indication of the share of capital income from migrants. A study conducted on 1000 households in three villages in Egypt found that the number of poor households in rural Egypt was reduced by 9.8 percent where household incomes include remittances. In addition, it was found that 14.7 per cent of the total income of poor households came from remittances (Adams, 1991:73-74). More recently, during the Arab Spring remittances in Egypt grew exponentially from US $7.15 billion to US $14.32 billion between 2009 and 2011, giving a clear example of how remittances can act as a lifeline to poor households (Ratha, 2013).

In a study to determine whether international migration and remittances reduce poverty in developing countries, Richard et al. (2005) constructed and analysed a set of data on international migration, remittances, poverty and inequality from 71 developing countries. The study looks at income levels, income inequality and the geographical setting. Results indicate that migration and remittances lead to a significant decline in the level, depth

(amount by which the average expenditures (income) of the poor fall short of the poverty line) and severity of poverty in developing countries. "After instrumenting for the possible endogeneity of international remittances, a 10% increase in per capita official international remittances will lead to a 3.5% decline in the share of people living in poverty."

Another study uses survey data from 7680 households between 1986 and 1987 to determine the impact that remittances have on poverty and welfare in Lesotho's rural and urban population (Gustaffson and Makonnen 1993). Results show that 35 percent of the total household income is from remittances. The study further shows that if the households received no remittance at all, there would be a 32 percent fall in consumption levels as well as a 26 percent rise in poverty head count. There would also be a 52 percent rise in the poverty gap index (measure in percentage terms of how far the average expenditures/income of the poor falls below the poverty line).

Similarly, Taylor et al. (2005) using data from 1782 households from a 2003 survey of a rural population in Mexico show that both the poverty headcount and poverty gap reduced by 77 and 53 percent, respectively with a 10 percent increase in remittances. Household surveys carried out in Burkina Faso in the period 1994-5 were used to determine the impact of remittances on income inequality and poverty. The study, which considered remittance income as a potential substitute for household earnings, showed that in rural households the percentage of people living below the poverty line declined by 7.2 percent owing to international remittances (Lachaud, 1999). In another study, Chukwuone et al. (2012) use data from the Nigerian National Living Standard Survey, 2004 to analyse the impact of remittances on poverty in Nigeria. Nigeria is an important remittance-receiving country, having the highest remittance in the sub-Saharan region. Using a logit model and introducing instrumental variables and the propensity score matching method they estimate that internal remittances reduce the number of people living below the poverty line by 11.14 percent. They also lead to a 9.7 percent drop in the country's poverty gap.

In South Africa, previous research has found remittances to be particularly important in poverty alleviation especially in rural areas. Woolard and Klasen (2004) for instance, found that from 1993 through 1998, the change in income from remittance was responsible for 10 percent of the household

poverty transitions in KwaZulu-Natal. A few studies have concluded that remittances have no significant impact on poverty. For instance, Knowles and Anker (1981) showed that urban-to-rural remittances in Kenya do not have a significant effect on the overall income distribution. Internal remittances might even have a negative impact on income inequality, widening the gap between the rich and the poor, as has been found in some studies. For instance, comparing the Gini coefficients of households with and without remittance income in the Punjab in India, Oberai and Singh (1980) found that urban-to-rural remittances deepen the inequality gap in rural areas. However, the overwhelming empirical evidence indicates that remittances from migrants do alleviate poverty.

Data

This study used the third round of the South Africa National Income Dynamics Study (NIDS) (Wave III). NIDS is a national panel dataset covering all of South Africa. The First Wave (Wave I) was conducted in 2008, while the second round (Wave II) was carried out in 2010 and third round (Wave III) was collected in 2012. The dataset includes different socio-economic information of a nationally representative sample of over 28,000 individuals in 7,300 households selected from 400 Primary Sampling Units across the country.

Empirical Methodology

Two different approaches were followed to assess the impact of remittance on poverty in South Africa. The first was to compare the level of poverty between remittance receiving households and non-receiving households using the FGT index and the second was the estimation of the logit model to see how access to remittance determines the probability of falling in a state of poverty.

a) Foster-Greer-Thorbecke (FGT) measurement of poverty

FGT measurements of poverty were used to measure the impact of remittance on poverty. According to Foster et al. (1984) the FGT measurement of poverty is grounded on calculations of poverty measures taking income shortfalls of the poor as weights. For the purposes of this study FGT is used to analyse the impacts of remittance on the incidence,

depth and severity of poverty. In our analysis we use the national upper-bound poverty line (R620).

The Foster-Greer-Thorbecke formula is expressed as:

$$\boldsymbol{P_{ai} = \frac{1}{n}\sum_{i=1}^{q}\left(\frac{y_i - z}{z}\right)^{a}} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots [\mathbf{1}]$$

b) Logistic regression model

The logistic regression model is a binary regression model in which the dependent variable takes the binary value (0 and 1). For the purpose of this study, households were classified as poor and non-poor. Poor households are households whose per capita expenditure is less than the poverty threshold and non-poor households are those whose incomes are above the poverty threshold. The logistic model for the purpose of this study is stated as follows:

$$\Pr(Yi=1) = \alpha + \beta_1 RD_i + \beta_2 X_i + \epsilon_i \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots [2]$$

Where,

- Yi is the probability that the household will be classified as poor
- RD_i is a remittance dummy which represents 1 for households that receive monthly remittance and 0 for households that do not receive monthly remittance.
- X_i represents different household characteristics which include: household size, per capita income (in Rand), geographical type (urban or rural) and characteristics of household head; gender (male or female), population group (Black, Coloured, Indians/Asians, White), age (years), education status (years).

Results

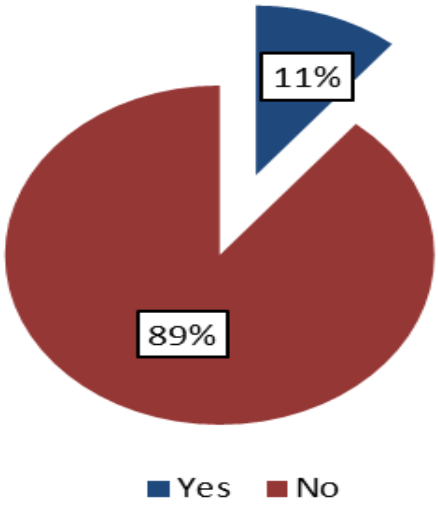
In this section we present the results of the analysis. It will begin with a presentation of descriptive statistics on household demography and

characteristics, followed by an FGT index analysis of poverty and logist regression, and give interpretations thereof.

a) Households and remittance income

This study uses the third wave of the NIDS survey. The third wave was released in 2012. It includes 10,236 households and 31,994 individuals in urban and rural areas in all the nine provinces of South Africa. From the total of 10,236 households 11% of the households received some kind of remittance from relatives or non-relatives that live in South Africa or abroad. The remaining 89% of the households do not receive any kind of remittance income. Figure 1 shows the distribution of households by monthly remittance income.

Figure 1: Distribution of households by monthly remittance income



Source: Own calculation using NIDS wave 3 survey

The total household income of remittance receiving households was divided into four quartiles. This indicates the proportion of remittances to household income. The result in Table 1 show that the poorest households receive more than half of their income from remittances (56.8%). Low income countries generate 36.45% of their income from remittance. The middle income and richest households derive 28.6% and 21.2% of their income from remittances, respectively. On average low income households remit more than high income households.

Table 1: Proportion of remittance income to total income by different income group

4 quantiles of household monthly income	**Summary of monthly total income per remittance**		
	Mean	**Std. Dev.**	**Freq.**
Poorest	0.568	0.283	349

Low Income	0.364	0.234	284
Middle Income	0.286	0.247	260
Richest	0.212	0.256	226
Total	0.379	0.291	1119

Source: *Own calculation using NIDS wave 3 survey*

The average remittances by different household income groups were compared. Households with lower total household income derive a larger proportion of that income from remittances, however, they receive lower average amount of remittance compared to higher income households (See Table-2).

Table 2: Average monthly remittance income by different income group

4 quantiles of household monthly income	**Summary of monthly total income per remittance**		
	Mean	**Std. Dev.**	**Freq.**
Poorest	663.1	440.8	349
Low Income	954.2	625.5	284
Middle Income	1336.3	1197.5	260
Richest	3026.7	6606.8	226
Total	1370.8	3167.2	1119

Source: *Own calculation using NIDS wave 3 survey*

The average remittance income by different household size was analysed. Table 3 shows that households with from 6 to 10 members receive a higher amount of average remittance income per month, followed by households with from 1 to 5 members. Households with higher members of between 21 and 39 receive lower average remittance income. This shows a negative relationship between monthly household remittances and household size.

Table 3: Average monthly remittance income by household population size

Household Size	Summary of monthly total income per remittance		
	Mean	**Std. Dev.**	**Freq.**
1-5	1372.8	2654.2	806
6-10	1403.3	4441.6	278
11-20	1095.7	1526.2	33
21-39	558	780.6	2
Total	1370.8	3167.2	1119

Source: *Own calculation using NIDS wave 3 survey*

Remittances to households in urban and rural areas were considered. Households in rural areas on average receive R614 monthly remittance which is higher than urban households that receive on average R505. The result strengthen the argument that rural households receives higher remittance income compared to urban households. The difference in average income between rural and urban households is statistically significant at 95% confidence interval (see Table 4).

Table 4: Average monthly income by geographic type

	Household geographic type			t-value
	Urban	**Rural**	**Total**	
Monthly remittance income	614	505	1119	3.3261

Source: *Own calculation using NIDS wave 3 survey*

Remittances to households in the different provinces were analysed. Households in Gauteng and the Northern Cape receive higher average monthly remittance income. Households in the Western Cape receives a lower amount of monthly average remittance income. Table 5 below shows the monthly average remittance income by province (see Table 5).

Table 5: Average monthly remittance income by province

Province	Mean	Std. Dev.	Freq.
Western Cape	908.4	1623	107
Eastern Cape	1391.1	4131	158
Northern Cape	1638.5	1721	37
Free State	1287.7	2165	98
KwaZulu-Natal	1390.2	4447	288
North West	1305.7	1597	100
Gauteng	1793.8	3221	126
Mpumalanga	1388.1	1995	47
Limpopo	1315.8	1215	158
Western Cape	908.4	1623	107

Source: *Own calculation using NIDS wave 3 survey*

b) Households head characteristics and remittance income

The different characteristic of household heads for remittance receiving households were analysed. Comparison of the average remittance received by different population group and gender. Table 6 shows Africans, Asian/Indian and White population groups. On average male headed households received higher monthly remittance income than female headed households. For the Coloured population group on average female headed households received higher government grants than male headed households. The average difference between female and male headed households among all population groups is statistically insignificant at 99% confidence interval.

Table 6: Average monthly remittance income by population group and gender of the household head

	Africans		Coloured		Indian/Asian		White	
	Mal	Femal	Mal	Femal	Male	Femal	Mal	Femal

	e	e	e	e		e	e	e
Average Monthly Remittance	1431	1390	610	929	10500	2580	5670	3411
t-value	0.1427		1.1123		1.4951		0.6500	

Source: *Own calculation using NIDS wave 3 survey*

Employment status was coded into two categories, employed and unemployed. Unemployed includes unemployed (strict definition), unemployed (broad definition) and not economically active. It was found that households with household head unemployed received the highest amount of monthly remittance income compared to employed household head. The difference in average monthly income between employed an unemployed household head is statistically insignificant at 90%, 95% and 99% confidence interval (see Table 7)

Table 7: Average monthly remittance income by household head employment status

	Household head employment status			**t-value**
	Employed	**Non-employed**	**Total**	
Monthly remittance income	420	170	590	0.7135

Source: *Own calculation using NIDS wave 3 survey*

Table 8 shows the distribution of average monthly remittance income by household head education status. Households where the household head has college education and above received a higher remittance than other education statuses, followed by high school diploma. Households with a household head education level of no school received the lowest remittance compared to other education statuses.

Table 8: Average monthly remittance income by household head education status

Household head education status	Summary of monthly income from remittance		
	Mean	Std. Dev.	Freq.
No school	894.9	1429.6	73
1 to 5 years	998.4	1294.4	67
6 to 11 years	1233.4	1989	294
High school	2193.7	5095.9	139
College degree	2323.3	2412.9	15
Total	1419.4	2982	588

Source: *Own calculation using NIDS wave 3 survey*

Before analysing the impact of remittance on poverty, the relationship between household expenditure and monthly remittance was tested. The result in Table 9 shows there is a linear positive, but weak relationship between monthly household expenditure and household monthly remittance.

Table 9: Pearson correlation between household monthly expenditure and monthly remittance received

	Total monthly expenditure	Total monthly expenditure
Total monthly expenditure	1.0000	
Monthly remittance	0.1926	1.0000

Source: Own calculation using NIDS wave 3 survey

c) The FGT measurement of poverty

The upper-bound national poverty line (UBPL) of R620 is used to determine the head count, depth and severity of poverty among households. DASP (2.3) software is used to analyse the FGT index.

Table 10: FGT index results

Poverty measures	**Remittance non-receiving household**	**Remittance receiving household**	**Total**
National upper bound poverty line (R620)			
Head count (P0)	52%	49.3%	49.7%
Poverty Gap (P1)	22.6%	23.2%	22.7%
Poverty Severity (p2)	12.9%	12.9%	12.9%

Source: *Own calculation using NIDS wave 3 survey*

As can be inferred from Table 10, the headcount index for the entire survey is found to be 49.7%. This means that out of the total households, 49.7% of the households live below the UBPL. The poverty gap index was found to be 22.7%. This shows that on average the income/consumption needed to eliminate poverty in the country should increase by 22.7%. The poverty severity of the households is 12.9%.

The breakdown of the poverty indices by access to remittance illustrates that remittance non-receiving households have the highest percentage of poor people compared to remittance receiving households. The FGT analysis shows that 49% of remittance receiving households are under the UBPL, while 52% of remittance non-receiving households live below the UBPL.

However, the poverty gap is higher among the remittance receiving households compared to non-remittance receiving households. For remittance receiving households the cost of eliminating poverty is 23.2% of the poverty line. For non-remittance receiving households the cost reduces to 22.6%. The poverty severity index, on the other hand, is widely used to

compare poverty rankings between two groups. The higher the severity index, the greater the inequality of the distribution among the poor and the severity of poverty. Table 10 shows that both groups have the same amount of poverty severity.

d) Logistic regression

A binomial Logit regression model was used to see if remittance determines the probability that households will fall into the state of poverty or not. The study uses the national upper bound poverty line of R620 to classify the poor and non-poor. Table 11 shows the stata output of the logistic regression.

Table 11: Logistic regression results

Variable	Coefficient	Robust Std. Err.	Odds ratio	Marginal effect	P>|z|	Robust Std. Err.
Remittance grant dummy	-0.011	0.125	0.988	-0.002	0.000*	-0.011
Household monthly per capita income	-0.101	0.046	0.361	-0.241	0.000	-0.101
Household	1.62	0.078	5.09	0.387	0.000	1.62
Gender of the household head	0.098	0.098	1.103	0.023	0.316**	0.098
Coloured dummy	-0.516	0.133	0.596	-0.116	0.000	-0.516
Age of the household head	-0.029	0.003	0.970	0.007	0.000	-0.029
Household education	-0.127	0.014	0.880	-0.030	0.000	-0.127
Geographic type	-0.387	0.095	0.678	-0.92	0.000	-0.387
Constant	7.19	0.391			0.000	7.19
Number of observations= 4,064 LR chi2 (8)= 2505.59 Prob>chi2=0.0000 Pseudo R2=0.4500						

Source: *Own calculation using NIDS wave 3 survey*

In order to check if the model adequately fits the data, the Hosmer-Lemeshow goodness-of fit statistic is used. The result shows that the model fits the data very well as the Hosmer-Lemeshow goodness-of-fit statistic was insignificant (Prob > chi2 = 0.1651) (refer Appendix I).

The remittance dummy is statistically significant at the 90% confidence level. The result of the odds ratio also shows remittance reduces the probability of being in a state of poverty by 98.8%. The sign of the coefficient also shows that remittance reduces the probability of being in a state of poverty. Hence, based on the above analysis it is possible to conclude that while remittance reduces the probability to be in a state of poverty other variables remain the same.

An increase in household monthly per capita income reduces the probity of households being poor. The result of the odds ratio and marginal effect shows that household monthly per capita income significantly reduces the probability of households being poor. In addition, the analysis also shows that living in urban areas reduces the probability of being poor, as opposed to living in rural areas.

The result shows households with a high number of household members have high probability of being in a state of poverty. Other variables remain the same and an increase in one household member increases the probability of households being in state of poverty by 38.7%. The result is significant at 99% level. Gender of the household head is another important characteristic of households that has a positive relationship with the probability of a households being in a state of poverty. However, the result is insignificant at 90% confidence level.

The age and education status of the household head have negative and significant impact on the household probability of being in state of poverty. Moreover, the marginal effect of education shows a contribution of 3% in reducing the probability of being poor, whereas the marginal effects of age are very low (less than 1%). Regarding the race dummy variable, Coloured households have less probability of being poor compared to African households and the result is significant at the 1% level. Asian/Indian and White dummy variables are illuminated in the backward stepwise regression.

Conclusion

This paper, using the third round National Income Dynamism Study of South Africa, attempts to critically evaluate the impact of remittance on poverty. It uses two different approaches to evaluate the impact of poverty on headcount, depth, severity and also the probability of households being poor, comparing remittance receiving and non-receiving households.

The first approach using the FGT indices shows that remittance receiving households have a lower headcount ratio compared to remittance non-receiving households. On the other hand, the poverty gap is higher among remittance receiving households compared to non-receiving households. Both groups of households have the same poverty severity level.

This study has also provided empirical evidence that remittance reduces the probability to be in a state of poverty. Using a multivariate logit model, the empirical finding confirms that remittance reduces the probability to be in the state of poverty by 98.8%, other potential determinants of poverty remained constant. In addition to remittance, household per capita income, education of the household head, age of the household head and living in urban areas compared to rural areas also reduces the probability of a household being in the state of poverty.

Recommendations

Future research might look at the impact of remittance on poverty if the current remittances increase, and understand how migration and remittances affect human capital investments and local labour productivity.

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