

The relationship between poverty and remittances in South Africa

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Abstract

There is a large and growing body of literature on the impact of internal remittances on poverty. However, most of the empirical work has been done for Latin American and Asian countries, and very few studies if any have been conducted in South Africa. Thus the aim of this paper is to examine the relationship between poverty and remittances in South Africa using the 2008 National Income Dynamics (NIDS) dataset. This paper follows a basic approach of comparing actual *per capita* income excluding remittances with *per capita* income including remittances. Our analysis of the data shows that poverty rate calculated from observed income without remittances is significantly higher compared to poverty rate derived from income with remittances. More specifically, poverty rate in the former scenario is 67%, while poverty rate in latter scenario is only 47.7%.

1 Introduction

Despite the role and importance of internal remittances in developing economies, there has been little effort to analyse their economic impact in South Africa. Thus the aim of this study is to fill the gap in the literature, by undertaking an impact analysis of remittances on poverty in South Africa. This study is justified for two main reasons: first although there has been a slight decline in poverty at a national level, it remains astonishingly high, particularly in rural areas where it's reported to be around 77% (see Leibbrandt, Woolard et al. 2010). Secondly, although a large number of studies have highlighted the importance of remittances in South Africa (Woolard and Klasen 2004; Wilson and Ramphela 1989; Cross 2003; Carter and May 1999; Posel 2001; Posel 2010; Casale and Posel 2006) very few studies if any have investigated their economic impact on poverty and other socioeconomic variables in South Africa.

This could be attributed to the lack of data on remittances and migration in South Africa. Casale and Posel (2006) for instance, argue that part of the reason why migration has been less explored in South Africa has to do with the fact that there is inadequate and incomplete data to investigate these important issues. Thus the aim of this study is to investigate the impact of remittances on poverty in South Africa using the most recent (2008) NIDS dataset, which has attempted to incorporate a lot of questions which were missing in the previous surveys such as LFS, OHS and income and expenditure surveys. This study is divided into an introduction and five subsections: Section 2 provides some statistical evidence of high levels of poverty in South Africa. Section 3 reviews the literature on the effects of remittances on poverty and will shed some light on the levels of remittances in South Africa. Section 4 provides evidence for the link between the remittances and poverty in South Africa. The last section provides some concluding remarks.

2 The distribution of poverty in South Africa

Although poverty is very high in South Africa, many countries are also in the same boat. At a global level poverty is astonishingly high; for example estimates by the World Bank show that about 1.4 billion people were living below the international poverty line of US\$1.25 a day in 2005. Among other implications, this means that millions suffer hunger and poor health resulting in deaths during childhood, and (especially among girls) loss of education. The African continent, especially its Sub-Saharan region contains numerous nation states which are among the poorest and most vulnerable in the world. It is estimated that 314 million to 366 million people survive on less than \$1 a day. More worryingly, previous studies have shown that in South Africa alone, 22 million people (roughly half of the population) are poverty stricken – that is, they survive on less than R160 per month. These studies have also shown that poverty varies from one province to another with Eastern Cape, Limpompo and KwaZulu Natal being among the poorest provinces.

Table 1, Poverty in South Africa by Province, 2008 -- poverty Line of R502 per Capita per Month

	Pop share	Poverty rate	Poverty share
Western Cape	10	23	5
Eastern Cape	13	64	17
Northern Cape	2	33	2
Free State	6	46	6
KwaZulu-Natal	22	63	29
North West	7	44	6
Gauteng	21	30	13
Mpumalanga	7	44	7
Limpopo	11	64	16
Total	100	48	100

Source: author's calculation based on NIDS data 2008

Table 1 above seems to confirm the figures produced by previous studies. The Table shows poverty rates in South Africa using the 2008 NIDS dataset. The poverty line of R 502 is used in this study. As expected, the analysis of poverty by province shows substantial differences across provinces. What really stands out from the Table above is that the Eastern Cape, Limpopo and KwaZulu Natal Provinces have amongst the highest poverty rates. More specifically, their poverty rates are a little higher than 60%! Although poverty rates are relatively lower in other provinces, Gauteng and Western Cape have the lowest poverty rates: 30% and 23% respectfully. In terms of Poverty share (i.e. share of total number of poor households in country), KwaZulu-Natal has the highest compared to other provinces. It is also one of the two provinces with a higher poverty share than population share.

The incidence of the poverty rate is by no means even across the races as is shown in Table 2. Perhaps unsurprisingly, 56% of the African population is poor, and a mere 1% of the white population is poor, with other racial groups intermediate. This big gap in poverty between these races can be largely attributed to the past policies which discriminated against black South Africans. Terreblanche (2002) when explaining poverty, he also does insist on the relevance of the legacies derived from the colonial phases, and from the periods of segregation (1900-48) and apartheid (1948-94). The legacies he points to are (1) " land deprivation, proletarianisation and repressive labour systems" (which he links with "chronic

community poverty" and "social and cultural disruption of Africa and coloured communities"); (2) "discriminatory measures to protect the white... proletariat against black competition in labour markets" - affecting skill-acquisition, asset-accumulation and attainment of status and social confidence; (3) "discrimination in social spending" a closer look at the table reveals that poverty share is not only substantially high among Africans than other races, but also high than population share.

Table 2, Poverty in South Africa by Race -- poverty Line of R502 per Capita per Month

	Pop share	Poverty rate	poverty share
African	79	56	94.1
Coloured	9	27	5.1
Asian/Indian	3	9	0.5
White	9	1	0.3
Total	100	47	100.0

Source: author's calculation based on NIDS data 2008

Where are the poor? According to Woolard (2002) rural poverty is more common than urban poverty. The income and Expenditure Survey of 1995, showed that 62% of rural dwellers were poor, compared to 32% of people living in small towns, 25% of those in secondary cities, and 13% in major metropolitan areas. Our analysis based on the NIDS 2008 dataset is consistent with Woolard's findings. It shows that most of the poor live in the rural areas of South Africa with the poverty rate for those living under tribal authorities being equal to 73% compared to only 27% in urban formal. In a nutshell the picture painted by these figures is that of a dramatic difference in the poverty levels of the different race groups and different geographical areas.

Table 3, Poverty in South Africa by Geo-Type -- poverty Line of R502 per Capita per Month

	Pop share	Poverty rate	Poverty share
Rural Formal	7	39	5
Tribal	36	73	55
Urban Formal	47	27	27
Urban Informal	11	58	13
Total	100	48	100

Source: author's calculation based on NIDS data 2008

Further, they show very clearly that the Africans are more likely to be victims of poverty than their counterparts and that Africans are predominantly located in the rural areas.

It is however important not to take poverty figures at face value given the controversies and confusion surrounding poverty figures. The following quotation from Van der Berg and Louw (2003:2) provides a nice summary of the central informational problem involved and suggest why a certain amount of "heat" and frustration has been involved: "One of the main areas of contention regarding post-transition trends relates to whether poverty has increased or decreased. Confusion was fed by the release of IES 2000 (the Income and Expenditure Survey 2000 conducted by Statistics South Africa) and in particular by a publication by Statistics South Africa (Stats SA 2002) comparing the results of this survey with the IES 1995. This comparison concluded that income in South Africa has been declining in real terms between 1995 and 2000 - contrary to all national income and demographic statistics also compiled by Stats SA — that racial income distribution has worsened and that poverty has substantially increased. However, Statistics South Africa has since admitted that this survey is not comparable with the IES 1995".

By the same token, perhaps there is a danger of exaggerating what is in dispute, or is uncertain, concerning poverty. No-one denies that approximately 48% of the population lives in poverty. No-one denies that about 56% of the African population is poor, and that this number is higher compared to other groups. No-one (presumably) would deny that the South African performance at poverty-reduction is miserable by international standards. Thus there is clearly enough human deprivation and misery associated with poverty in this country to justify the search for policies that will be poverty-reducing - whether that poverty is worsening or not. In what follows an attempt will be made to investigate the role of remittances in and whether remittances can be used to alleviate poverty.

3 The impact of remittances on poverty

There is a large and growing body of literature on the impact of remittances on poverty. Although, most of the empirical work has been done for Latin American and Asian countries, very few studies if any have been conducted in South Africa. This section will attempt to review some of the completed relevant studies.

In the literature predominantly two approaches are used to study the impacts of remittance on poverty: one considers remittances as an “*exogenous transfer*”. Here the focus is on how remittances, in total or at the margin, affect the observed level of poverty. The second approach considers remittances as a “*potential substitute*” for home earnings. When treated as a potential substitute for home earnings, the focus is on how the observed level of poverty in a country compare with a counterfactual scenario without migration and remittances but including an imputation for the home earnings of migrants had those people stayed and worked at home

Shaw attempts to distinguish between those studies that treat remittances as an “*exogenous transfer*” and those that regard it as a “*potential substitute*”. The latter studies include the works of Gustafson et al 1993. For example, Gustafsson and Makonnen (1993) used the data of 7,680 households from a 1986–1987 survey to examine the impact of remittances on poverty and welfare in rural and urban Lesotho. They found that those households depended very much remittance – constitutes 35% of income for households in Lesotho. This leads these authors to conclude that without these remittances the consumption of these households would be much lower (i.e. by 35%).

The former studies on the other hand, include the works of Gubert et al (2010), Adams (2005), Adams (2006), Brown and Jimenez (2008) Acosta et al (2008), Barham and Boucher (1998) and others.

Adams (2005) studied the impact of remittances on poverty and inequality in Guatemala using counterfactual estimation method. Using predicted equations to develop counterfactual income estimates for households with and without remittances, his findings show that both internal and international remittances reduce the level, depth, and severity of poverty in Guatemala. The author also points out that, the impact of remittances on poverty depend very much the how poverty is measured. According to the poverty headcount measure, the inclusion of internal remittances in household expenditure reduces the level of poverty by only 1 percent and the inclusion of international remittances in such expenditure actually increases the level of poverty by 1.6 percent.

Using a 2006 household survey in Mali, Gubert et al (2010) compared current poverty rates and inequality levels with counterfactual ones in the absence of migration and remittances

and found that remittances reduce poverty rates by 5% and the Gini coefficient by about 5%. They also discovered that households in the bottom quintiles are more dependent on remittances, which are less substitutable by additional workforce.

Evidence from Ghana reveals that the impact of remittances on poverty depend very much on the nature of remittances: (i.e. whether they are internal or international remittances) and the poverty measure in question. Evidence suggests that international remittances have a bigger impact on poverty gap than internal remittances. That is people who are seriously poverty stricken tend to benefit more from international remittances (Adams 2006).

Brown and Jimenez (2008) found that remittances decreased poverty in Fiji and Tonga while the effect on inequality is negligible. In Fiji where 43% of the households receive international remittance the head count and the poverty gap ratios respectively fell from 49% to 34% and from 17% to 15%. In Tonga where the remittance receivers account for 90% of the sample, the head count and poverty gap ratios dropped from 62% to 32% and from 27% to 12% respectively.

Using similar method, Acosta et al (2008) found that remittances reduced both inequality and poverty in 10 Latin American and Caribbean countries. The poverty reducing effect is exaggerated when remittances are considered as exogenous additions to income while the impact of such assumption on inequality is mixed

In their paper Barham and Boucher (1998) used a similar method to examine the net effects of migration and remittances on income distribution. Potential home earnings of migrants were imputed, same as the earnings of non-migrants in migrant households, in order to construct no-migration counterfactuals to compare with the observed income distribution including remittances. They found that remittances increased inequality as reflected by a rise in the Gini coefficient from .38 to .43 (while it decreased from .47 to .43 when remittances are treated as exogenous additions to income).

Another strand of literature using different methods has broadly confirmed the results obtained by above mentioned studies.

Adams and Page (2005) examine the impact of international migration and remittances on poverty using household surveys of 71 developing countries. After controlling for certain variables such as the level of income, income inequality, and geographical region, they find that international remittances have a strong statistically significant negative impact on poverty. A 10 per cent increase in the share of remittances in a country's GDP, lead to a reduction of 1.6 per cent of people living in poverty.

Lopez-Cordoba (2004) analyse the impact of remittances on poverty indicators, using a cross-section of 2,443 Mexican municipalities. His results show that, a 1% increase in the proportion of remittance-receiving households in a community leads to a 4.5% decline in the proportion of the population earning less than the minimum wage.

Taylor et al (2005) examine the effect of the remittances on inequality and poverty using the rural data of 1782 household collected from 14 Mexican states. Using the decomposing method they found that, while remittances tend to worsen inequality, their impact varied from one region to another. For example, in the West-Central Mexico, where migration prevalence is the highest, remittances have equalizing effect whereas in South-Eastern region where migration is the lowest remittances have the highest unequalizing effect on the margin. Similar result is observed for poverty. Even if the overall effect is a fall in poverty, the magnitude differs starkly across regions. The largest effect is registered for the highest migration region while the effect is very small or zero for the lowest migration region.

In their paper Yang and Martinez (2006) exploits a unique natural experiment that helps identify the causal impact of remittances on poverty in migrant's household of origin and in remittance-receiving areas more broadly. Their study estimates that the regional poverty rate would decline by 1.8 percentage point with a 3% improvement in the region-level migrant remittances.

Gyimah-Brempong et al (2011), Use both cross section data from Ghana Living Standards Survey wave 5 (GLSS5) and pseudo-panel data constructed from GLSS3-GLSS5, bivariate probit and GMM pseudo-panel estimators, they find that international remittances decreases the probability of a family being poor or chronically poor.

Based on the household surveys, carried out in 1994-95, Lachaud (1999) looked at the impact of remittances on the inequality and poverty in Burkina Faso. Treating remittance income as a potential substitute for home earnings, he found that the percentage of the population living below the poverty line was reduced by 7.2 per cent in rural households as a result of international remittances from Côte d'Ivoire.

A study by Ratha (2005) also found that remittance flows tend to reduce the proportion of people living in absolute poverty in many developing countries such as Uganda, 4 Bangladesh and Ghana by 11, 6 and 5 per cent respectively.

In South Africa the importance of remittances particularly in rural areas has been highlighted by various studies. For example in their paper, Woolard and Klasen (2004), find that changes in remittance income alone accounted for around 10% of household transitions into and out of poverty in KwaZulu-Natal province between 1993 and 1998.

Litchfield and Waddington (2003) uses the Ghana Living Standards Survey (GLSS) data to examine welfare outcomes of migrant households in the 1990s. They conclude that migration generally improves household welfare as measured by the probability of being poor, household expenditures, and primary school enrolment.

Campos and Palomo (2002) find that, in 2000, remittances helped reduce the national poverty rate by 4.2 per cent in El Salvador as well as reduced the Gini coefficient from 0.55 to 0.53.

Adams (1991) analyzed the effect of international remittances on poverty in Egypt. He reports that remittances provide negative and significant impacts on poverty.

Using a panel data set of developing Asia and the Pacific countries during the period 1993-2003, Jongwanich (2007) examines the impacts of remittances on economic growth and poverty. He finds that a 10 per cent increase in remittances leads to a reduction in poverty incidence by 2.8 per cent.

Reaching a similar conclusion, Esquivel and Huerta-Pined's paper which examined the impact of remittances using different definitions of poverty (i.e. food-based, capability based and asset based). find that remittances reduce poverty irrespective of the poverty measure used (Esquivel and Huerta-pined 2007)

Spatafora (2005) reports similar results using data from a sample of 101 countries for the period 1970 – 2003. Her results show there is a link between poverty reduction, whether measured using the poverty headcount or the poverty gap, and remittances.

Munzele (2005) uses a cross-country data set composed of 71 developing countries to estimate a growth-poverty model. His results show that “official international remittances reduce poverty in the developing world”, but he finds that “in South Asia, official remittances have no statistical impact on the level and depth of poverty.” When he adds estimated values for unofficial remittances to official remittances figures, however he finds that total remittances reduce the level of poverty in South Asia.

According to the World Bank (2006), remittances do tend to reduce poverty, have a weak impact on inequality, and lead to higher household expenses in health and education

Regardless of approach used, empirical studies produced above on the poverty effects of remittances depict the vital role of remittances in alleviating poverty. However, there are few studies which present the contrasting view. These studies show that migration and remittances will not have any significant impact on poverty. The reasons for insignificant impact of remittances vary from one study to another.

Some studies take the view that poor people don't have enough in the way of resources, or face liquidity constraints which prevent them from migrating to countries or cities endowed with opportunities. A forceful advocate of this view is Stahl [1982], cited in Jongwanich [2007], Who argue that “because the international migration can be an expensive venture, it is going to be the better-off households who will be more capable of producing migration and sending remittances. While poor households would not get the benefit from such remittance flows, they tend to generate inequality so that poverty tends to eventually increase.”

Lipton 1980 reaches a similar conclusion as Stahl that remittances are unlikely to help to reduce rural poverty because pull migration allows the better off migrants to advance in better jobs, while push migration weakens the poor. Likewise, Cattaneo [2005] finds empirical evidence which is contrary to what the previous studies have proven. She uses a data set from 149 labor-sending countries. The study estimates the average income of the poor as a

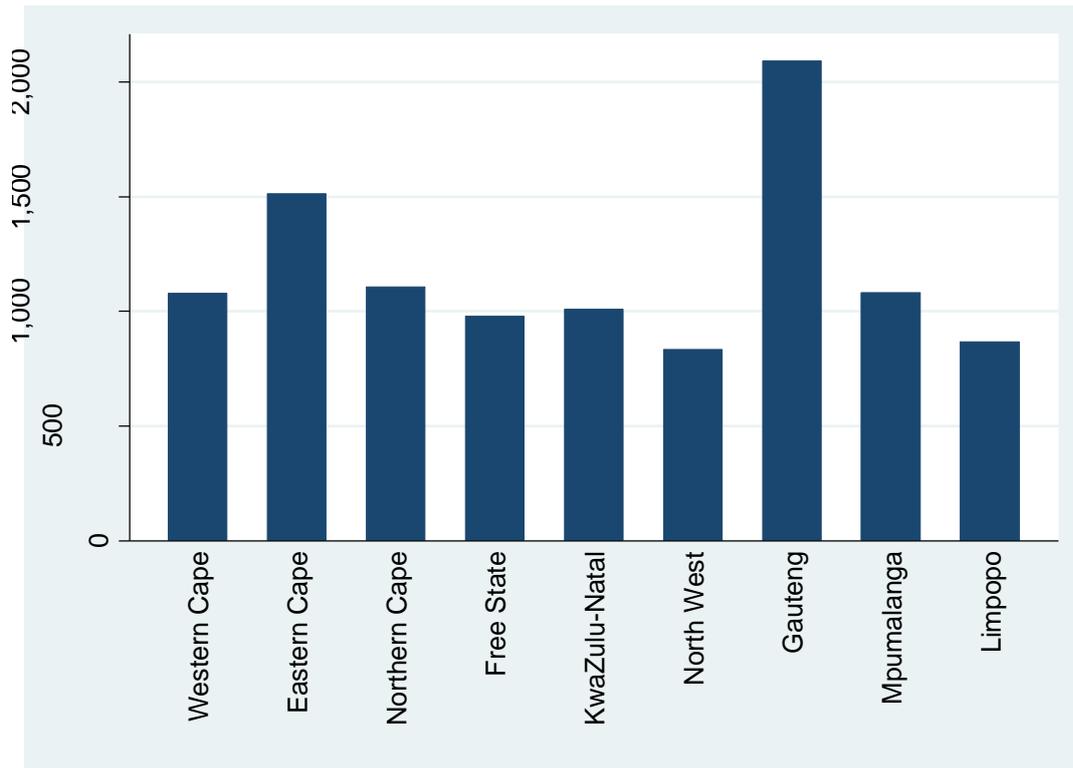
function of the country average income, income inequality, level of migration and remittances and other local factors. The study finds that remittances do not have any impact on poverty while the stock of migrants per capita shows a strong dampening effect on poverty.

Despite the conflicting results regarding the nature of the relationship between remittance and poverty, an overwhelming amount of the empirical literature suggests that remittances helps to reduce poverty in many countries.

3.1 Remittances in South Africa

This section seeks to provide a statistical overview of migrants' remittances in South Africa. Figure 1, below provide a detailed account of the distribution of average household monthly income from remittances by provinces. More specifically, they show that provinces such as Eastern Cape and Gauteng are the major receivers of remittances in the country. Gauteng stands out as particularly remittance dependent. In sharp contrast, Free State receives very little in the way of remittances. It is interesting to notice that a province like Gauteng which is a major receiver of remittances has lower poverty rates than those that receive fewer remittances. It is to some degree quite surprising that Gauteng receives more remittances than other provinces. This requires some further investigation as it seem to be a potentially interesting finding.

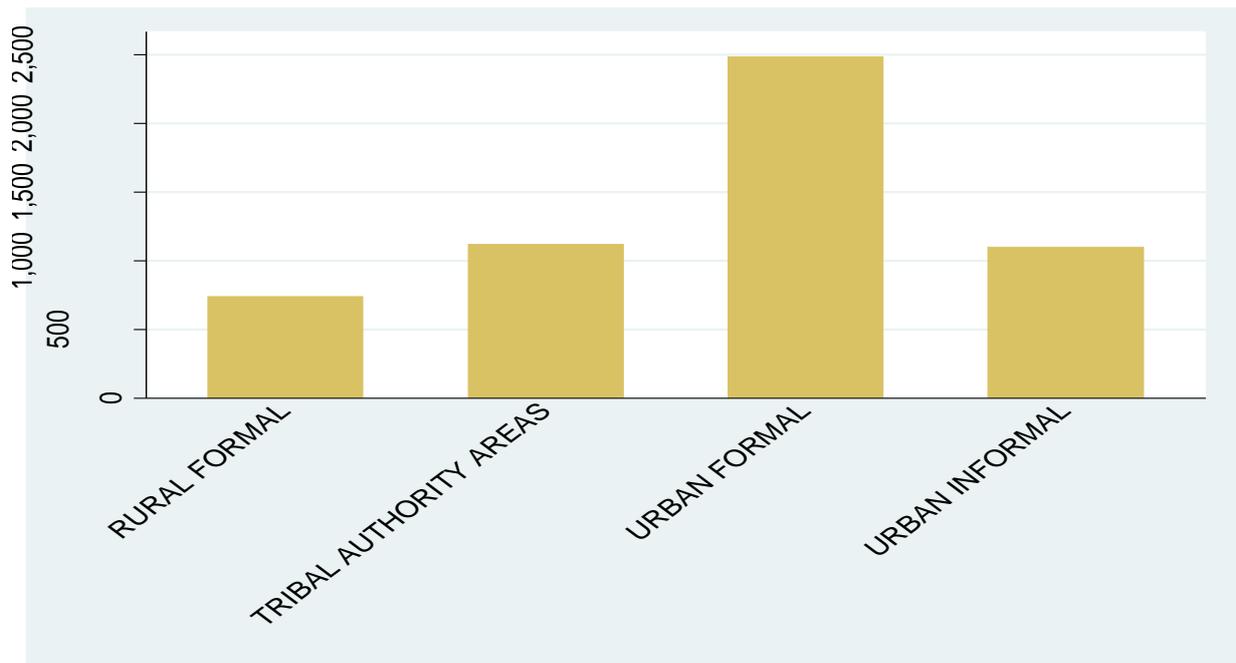
Figure 1 average household monthly income from remittances in South Africa by province



Source: own derived from NIDS data 2008

Do rural inhabitants benefit from remittances? The importance of remittances becomes even more evident when we look at the specific areas from which remittances are likely to flow to. In South Africa as is probably the case in other countries, it is the urban areas that receive more remittances. That is, most households that report receiving remittances hail from urban areas. Figure 2 below shows that the share of remittance-receiving households living in urban areas, particularly urban formal is higher than those living in rural areas. Given higher rates of poverty in the country and more specifically rural areas, it would be interesting to know whether remittances do help in the way of reducing poverty. The following section attempts to investigate this issue.

Figure 2 average household monthly income from remittances in South Africa by Geo-type



4 The methodology of this study

The purpose of this study is to analyse the impact of workers' remittances on poverty levels in South Africa using 2008 NIDS dataset. The poverty line of R 502 is used in this study. Given the characteristics of the dataset – cross-sectional, this study follows a basic approach of assessing the impact of remittances on poverty by comparing poverty headcounts calculated before and after excluding remittances from the *per capita*. The two basic scenarios are reported in table 4. The first scenario shows, “*observed income without remittances*”, the indicators are calculated using observed income (inclusive of subsistence income) excluding remittances for all households, with and without migrants. This scenario treats remittances as an exogenous addition to income from other sources. The second scenario, “*observed income with remittances*”, presents the actual scenario *with* migration, under which the poverty as an indicator is calculated using observed income including remittances received by all households.

A closer look at Table 4 shows that poverty rate calculated from observed income without remittances is significantly more severe irrespective of the province in question. In South Africa as a whole poverty rate would increase from 48% to 68%. compared to poverty derived observed income with remittances”. More specifically, poverty rate in scenario 1 is 67.93%, while poverty rate in scenario 2 is only 47%.

Table 4 poverty headcount before and after remittances in South Africa.

	Poverty without remittances	Poverty with remittances
National	67.93	47.7
Eastern Cape	78.19	63.59
Northern Cape	57.19	32.58
Free State	72.85	46.03
KwaZulu-Natal	76.17	62.29
North West	55.38	43.71
Gauteng	51.45	29.43
Mpumalanga	54.74	43.86
Limpopo	80.68	63.87

Source: own derived from NIDS data 2008

The difference lies in the fact that remittances are treated as exogenous variable. While this method shed some light on the impact of remittances on poverty, it has been has been criticised by some researchers. They claim that using this method could result in an overestimation of the impact of remittances on poverty alleviation. This is because the abovementioned method is underpinned by simplifying assumption that remittances are an exogenous transfer and not a substitute for migrants’ home earnings. Put it another way, these researchers argue that this method does not take into account the opportunity costs of migration; that is what the migrant members would have contributed to household income had they not migrated.

Concluding remarks

The primary objective of this study was to address the question of how remittances impact on poverty in South Africa. Before analyzing the impact of remittances on poverty an attempt was made in this study to provide some statistical evidence of high levels of poverty in South Africa. This was followed by a brief review of remittances in South Africa. In estimating the impact of remittances in SA we used 2008 NIDS dataset. The poverty line set by Stats SA of R 502 (i.e. upper bound) was used in this study. Given the characteristics of the dataset – cross-sectional, this study followed a basic approach of assessing the impact of remittances on poverty by comparing *actual* per capita income excluding remittances with *per capita* income including remittances. Although we cannot draw firm conclusions given the shortcomings of our methodology (see section 4) it nonetheless shows that poverty rate calculated from observed income without remittances is significantly higher compared to poverty derived observed income with remittances”. More specifically, poverty rate in scenario 1 is 67%, while poverty rate in scenario 2 is only 47%.

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