INTER HOUSEHOLD PRIVATE INCOME TRANSFERS AND POVERTY IN TANZANIA

By Nassoro Hussein and John Kajiba

The Economic and Social Research Foundation (ESRF)

www.esrftz.org

INTER HOUSEHOLD PRIVATE INCOME TRANSFERS AND POVERTY IN TANZANIA

By

Nassoro Hussein and John Kajiba

ESRF Discussion Paper No. 34

TABLE OF CONTENTS

1.0   INTRODUCTION

Private (or inter-household) Income Transfer (PITs)[1] plays an important role in improving household welfare particularly in developing countries. There are a number of reasons given in the literature to explain why PITs are important. For example, Kazianga (2003) argues that private old age support can act like social security for many elderly household members; act as credit markets in helping households to overcome borrowing constraints; and they can also assist households in coping with risk. According to Backer (1974), transfers can help redistribute income among family members and thus maintains social fabric. PITs can help recipients invest and re-invest the transferred income to generate additional income in small businesses, or finance children education, thus, playing an important role in poverty reduction initiatives (World Bank, 2005).

There are two major forms of transfers: international private transfers (remittances) and domestic inter-household income transfers. The former involves international transfers and affects balance of payments of a country, whereas the latter takes place between two households (a donor and a recipient), representing a redistribution of income. This study focused on the latter form of transfers.

At least three motives are evident in the literature as explaining inter- and intra-household income transfers. These are altruism, exchange and insurance motives. The altruism view predicts that an individual will remit part of his/her income to another socially related but economically more needy individual/household (support old age parents, support relative with lower incomes). As a result, the amount of transfer inflows decline as the income of recipient increases. Exchange motive is typical where self-interest prevails; income is transferred in anticipation of a gain or return in future (e.g. parents' investment in their children). As for insurance motive, transfers follow the same pattern as in the case of altruism but with a greater emphasis on informal risk sharing—mainly to smooth consumption against idiosyncratic shocks. The major difference between the two is that unlike altruism, income transfer on insurance motive involves a one-off transaction to lessen negative effects of a shock against.

The transfer motives entail different predictions regarding the relationship between transfers and the recipient's pre-transfer income. For example, public transfers may crowd out private transfers when based on altruism motive. In contrast, Cox (1987) and Hansen and Emmanuel (2002) show that public transfers augment private transfers under exchange motive. Under insurance prediction, private transfer may fall if public transfers are initiated to mitigate a shock.

Private transfers are very common in Tanzania, however there is very little knowledge related to motives of those who remit their money, whether its altruistic, exchange and or risk sharing

---

[1] This is defined a transaction where one individual remits part of his/her income to another socially related individual.

motive. In addition to that, its contribution in terms of the extent to which poverty is being reduced within a household by such transfers was other interesting area which prompted this study. It is expected that preparation for the present attempts to fill the present study to fill the existing gap.

1.1   Statement of the Problem

Studies on private income transfers have focussed on three main issues namely, the motives for private income transfers, determinants of the size of transfers, and to a lesser extent, the impact of income transfer on poverty (see Kazianga 2003, Cox et al, 2004). Nevertheless, research works on inter household private income in Tanzania are generally very few. Despite such low research attention, inter household private income transfer is a common phenomenon within developing countries with no exception in Tanzania. Studies which have been undertaken in different countries have reported that, private income transfer reduce poverty of a recipient household of (see Adams, 1991, Taylor, Mora and Adams 2005). This is among mechanisms at which private initiatives may complement public poverty reduction programs. Given that Tanzania inspires to alleviate poverty, facing almost 33 percent of its population, investigation on extent at which private income transfer affect poverty becomes a very crucial study. Arguably, private income transfers alone are unlikely to lift people out of poverty. In spite of the assertion, literature suggests that impact of income on transfer poverty is implied. This is contrary to the intuitive evidence, which suggests that most of private inter-household transfers are motivated by poverty considerations[2]. In this light, empirical evidence suggests that there are different motives and sources of income transfer and their impact on poverty may vary. Kazianga (2003) observed that different transfer motives imply different predictions regarding the relationship between private transfer motive and recipient pre- transfer income and that, ultimately will turn to distinct policy implications. For instance, where altruistic motive prevails, there is a high possibility for public transfer to crowd out private ones (see Kazianga 2003). A crowd in effect may happen if underlining motive of private income transfer is exchange. Given the scenario, certainly, design and implementation of pro-poor programs need a careful consideration of the existing motive of a remitting household. It is on the basis of that, this study was undertaken to investigate the impact of inter household private income transfer on poverty in Tanzania Approach followed by the study is consistent with the idea of a UNCTAD report (2010) on India which advocate for a micro level analysis in order to reveal useful insights.

1.2   Objectives of the Study

Investigate the impact of inter-household income transfers on poverty reduction in Tanzania.

---

[2] It is argued that the extended family in developing economies is altruistically linked. With rapid urbanisation, most youth are leaving their rural domicile and move to cities and towns in search of better livelihood either as self-employed entrepreneurs or casual labourers. The urban dweller then remits money to their relatives back home.

1.2.1   *Specific objectives*

i. To determine the motives for private income transfers.
ii. To assess factors which influence inter-household income transfers.
iii. To assess to what extent private inter-household income transfers are targeted towards the poor.
iv. To assess the impact of private transfers on poverty at household level.

1.3   Hypothesis

The study tested three-transfer hypotheses (altruism-exchange-risk-sharing), transfer derivatives and impact of transfer income on poverty.

2.0   LITERATURE REVIEW

Since Becker (1974)'s pioneering work, several economists have attempted to study private household income transfers, with a view to identifying the motives for the transfer. At least three motives have been proposed: altruism, exchange, and co-insurance. The altruism model asserts that individuals and households transfer incomes to other individuals and households simply because they care for the well being of the receiving individual or household. Here, transfers are considered to be an obligation to the donor (remitter). Unlike the altruism motive, the exchange motive is rooted in reciprocity structure; it is seen as exchange for previous transfers (Cox, 1987). For example, children remit cash to their families as a repayment for their education costs previous rendered by the parents. Under the mutual insurance model, households enter into mutual agreements so that transfers of transitory income are used to smooth consumption (Townsend 1994). In economies with poorly developed capital markets such as Africa, family transfer systems act as insurance mechanisms and as a means of savings (Frankenberg et al 2002).

Empirical studies in this area have concentrated on, among other things, assessing the motives for private transfers, crowding effects of public transfers, and the impact of the transfers on poverty reduction. Crowding out may reduce effectiveness of public safety nets such as social security (e.g. public pension programs, unemployment insurance, and health insurance) and poverty alleviation programs. Evidence on crowding out effect is mixed. For example, while studies including those of Cox et al. (2003), Kazianga (2003), Cox et al. (1998) found evidence of crowding out effect, those by Cox and Jakubson (1995) and Altonji et al. (1997) did not.

 It is not yet evident whether inter-household income transfers are motivated by altruism or exchange motives or not. This is accounted by varying conclusions drawn in different researches. For instance, studies by Cox et al. (1992); Altonji et al. (1995); and Cox et al. (2003) did not find evidence to support altruism hypothesis. While Kazianga (2003) analysed motives of household transfer in Bukiana Faso ended up concluding presence of altruistic and exchange motive. Further to that, Kazianga (2004) argues that income transfer on altruistic motive is more apparent in low middle-income class. One reason being, that the more affluent households feel an obligation of remitting income to poorer households within a society. This view is equally shared by Cox et al., (2004) who argued that donors help desperately poor relatives or bystanders, and further attempts to save drowning victims, act not in expectation of remuneration but solely out of altruistic concern.

The exchange motives emerges once a recipient person or household has improved in income status in which altruistic motive may cease to operate at the margin. On this account, Cox et al., (2004), were of the view that, the donor may still care about the recipient (and be happy to learn, for example of the latter's recent lottery winnings) without going out of his way to help him. On the basis of that altruistic motive will not be operative, but transfer may still continue

to occur. The report described the scenario as a departure from the Becker- Baro model in which transfers stop upon reaching altruism's limits.

Insurance motive arise out of the need to mitigate shocks which may have happened already within a household or at the individual level. This motive is not broadly different from the altruistic one and is foundation of hedging against risks. To cope with stochastic income shocks, a household joins a conglomeration of households that pool and share resources, leaving it vulnerable only to shocks affecting the group at large (Cox et al., 2004). Generally literature holds that, relationship between the motive and the pre –transfer income status of a recipient is inversely related. In developing country like Tanzania, insurance industry is not well developed and or covers the few middle class earners, income transfer provide a potential means of coping with shocks such as food shortage due to crop failure, floods, death of a family member and even in a situations in which households are holding ceremonies. Health insurance schemes is still developing and majority of the people have not been covered yet. Under this situation, in case a family member fails sick, members' contribution is important to enable him or her access medical services.

Private income transfer may constitute a substantial income which is used by recipient households to smoothen consumptions; invest in more assets, purchase health inputs and education. Such income transfer is often directly related with the poor people within a society. Although, literature holds that poverty of the recipient may not be the only explicit factor which induces one to remit. We have seen cases whereby an individual will donate to a bystander simply because of his or her deprived appearance. If this is a consensus, then, there is no reasons of why shouldn't believe that private income transfer may help to reduce poverty. UNCTAD report (2010) has equally echoed on the same, and generally treats the belief as a reasonable assumption while holding up low research interest in explicitly addressing the link between remittances and poverty as main reasons for lack of this important information. Few studies which have been done so far such as Gibson et al, (2004), Adam (2004) as well as Chipeta and Kachaka (2004) have attempted to show a linkage in which poverty is reduced by private income transfer. Despite the fact that, economic growth and poverty reduction are major national agenda in Tanzania, very little has been done so far in this front. Knowledge on how private income transfer impact poverty will provide an important inputs in designing and implementing pro-poor policies and programs in order to scale up the impact which is created.

Although private income transfer may bring beneficial impact, it's complementarities with pro-poor public programs which are designed and implemented need a consideration. The idea is reflected by a wide literature which have attempted to link between private income transfer and public programs which are targeting the poor. Nature of the relationship is rooted on the premise that when income status of a recipient member improves, there is a corresponding change in income transfer motive. Take a situation in which government has designed a public social security consistent with Baro (1974) and Becker (1974) hypothesis, a crowding out effect will be inevitable in a case of altruistic donors. It is under such a scenario in which Kazianga (2003), predicted a possibility for welfare levels of the low income household to remain

unchanged meanwhile income of the relatively better households is increasing as a crowding out effect.

Concerns about crowding out are particularly relevant to the developing countries that are beginning to construct formal pensions and social security systems (Gibson, 2004). If exchange motive explains why people are remitting income, then prediction put by Cox, (1987) holds in which there is possibility for public programs to crowd in private transfer is predicted. Finally under the complete risk sharing hypothesis, targeted public transfers are likely to displace private ones if the public interventions are initiated in response to transitory shocks (Kazianga, 2003). According to the report, relief programs or unemployment insurance programs might crowd out private transfers, while pension programs which tend to be permanent may have a little effect.

Potential role of private income transfer, particularly in helping to reduce poverty among relatively low income people evokes a need of understanding important derivatives for such transfers. A survey of literature, suggest that, migration of a family member is often associated with private income transfer (see UNTACD 2010, Mora and Taylor 2006). Such a linkage has made migration to become an important subject and evoked research works focusing on understanding important determinants of migration and its effect on migrant's household. In this regard, Mora and Taylor (2006), described migration as the result of individuals and households weighing the utility that is attainable under different migration regimes with the utility from not migrating. In a bid to understanding factors which induces private income, Chipeta and Kachaka (2004) conducted multivariate regression analysis and found that the amount of income transfer is positively influenced by the household income of the remitter, the education of the head of the remitting household, the size of the remitting household, location, and negatively influenced by the age of remitter, the ownership of livestock by receiving household and the number of dependents of the remitter. Arguably, there is very title knowledge on what factors influences private income transfers in Tanzania and it's on one of the reasons why this study was designed.

3.0   METHODOLOGY

3.1   Conceptual Framework

The theoretical disclosure in this paper relies on framework established by Cox, (1987). In this theory, there is a consideration of a person who is remitting income and a recipient member. Related to that, Cox et al., (2004), described the relationship between transfer and recipient income as a non-monotonic in nature, while holding the three motives accountable. Under such a situation, utility function becomes an appropriate approach to explain how transfers and recipient income is relating. Let U_d denote utility function of a donor such that the expressions below describes two individuals denoted by subscript letter d for a donor and r is for a recipient. T and s stand for Transfer or even a loan from a donor and services provided by a recipient. Let us assume further that, transfers and services are two distinct products which are traded in a market. In this market, neither transfers nor services have substitutes; donor and recipient are engaged in a bilateral monopoly. However the donor determines bargaining outcomes. C reflects consumption which is financed by own income plus or minus transfers. To simply our hypothetical case, let us assume a one sided altruism emanating from the donor. Thus expressions below constitute exchange and altruism motive (consistent with what is regarded as altruism and exchange motive dichotomy).

$$U_d = U(C_d, s, V(C_r, s)) \text{-------- (1)}$$

$$C_d = I_d - T \text{ -------------- (2)}$$

$$C_r = I_r + T \text{ ------------ (3)}$$

$$V(I_r + T, s) \geq V(I_r, 0) \text{ -------- (4)}$$

Utility of a donor is increasing within his consumption; amount of services consumed and recipient utility while recipient's utility V is increasing in his consumption C_r and decreasing in s. Above expressions generate the following partial derivatives;

$\partial U / \partial V > 0$ =Implies that a donor cares about recipient's welfare.

$\partial V / \partial s < 0$ = Increasing services will deprive welfare of a recipient and will have to be compensated by the donor.

Equation no (4) is the participation constraints sets a precondition that a participating recipient must not lower his utility. When a constraint is not binding ($V>Vo$), then transfers will be altruistically motivated and the recipient enjoys more compensations for rendered services.

However a partial derivative generated $\partial T / \partial I_r < 0$, is negative reflecting declining transfers with the recipient income. If the participation constraint is binding conditioned by a high recipient's pre-transfer income, then exchange motive will be the underlining factor and provision of services is compensated. If compensation for services, is pegged on implicit price P, then, expression between transfer and services is expressed as $T = PS$, which proceeds as[3];

$$\frac{\partial T}{\partial I_r} = \frac{\partial S}{\partial I_r} P + \frac{\partial p}{\partial I_r} S$$

A graphically representation of the relationship between transfer and recipient pre-transfer income is as depicted below;

Fig. 1. The relationship between private transfer and Recipient income

Recipient Income (Ir)
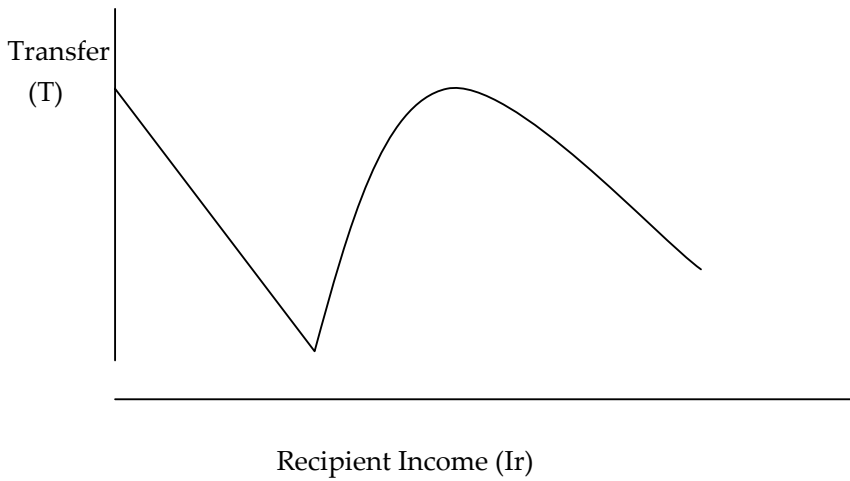
Private income transfers are not only triggered by altruism and exchange motive. There is a third motive which motivates private transfers within the society, as one of the many strategies for pooling risks. Becker (1974) in Cox et al., (2004) noted that social interactions, operative, altruism transfers can imply effective risk sharing between donor and recipient. Under risk sharing motive, it's transitory and not a permanent income will enter the transfer function. This is under empirical situation when confronted to capture such behaviour. Unfortunately, the model presented above does not distinguish between permanent and transitory income components and thus does not explicitly consider risk sharing motives (Kazianga, 2003). Thus if we are consider to capture risk sharing behaviour which triggers private transfer with a sole purpose of assisting a household member to cope with unpredicted income shocks which may have happened then, according to the literature, it is only transitory income which is important.

---

[3] The first term in the right hand side is negative and the second term is positive. Thus the overall effect depends whether the price or the quantity effects dominates (Kazianga, 2003). Alternatively we could also consider $\partial s / \partial I_r < 0$ as a quantity effect and $\partial p / \partial I_r > 0$ as a price effect. Thus transfer can rise and fall depending on whether the price effect dominates the quantity effect.

3.2   Analysing Motives of Private Income Transfer

On the basis of the theoretical illumination and corresponding empirical evidence from the literature, relationship between remittances and recipient's pre-transfer income is concluded to be non-linear (see also Cox and Jemmenez, 1995; Green, 1997; Kazianga, 2004; Cox, Hansen and Jimmenez, 2004). In view of the non-linearity nature, Cox and Jimenez (1995) proposed the use of spline specification in estimation as a way of tackling the problem. A spline specification allows the income parameter to vary over different income quartiles. The spline equation takes the following form:

$$T_i = \sum_{k}^{4} \gamma_k I_i . I\left(I_i \in k\right) + \beta X_i + \varepsilon_i$$

Where Ti is the net transfer received by household i, k indicates pre-transfer income quartile, I_i is households i's pre-transfer income, I is an index variable which is equal to one for I_i falling in quartile k and zero otherwise and X is a vector of variables that affect transfers received. The list of explanatory variables that goes to vector X is as given is as given in table 1.

To test the risk-sharing hypothesis, we run two logit regressions. Separate regressions were carried out with transitory income and permanent income to determine whether transitory incomes were substantially affected by transfers or not.

Table 1: Description of Variables

Variable	Description
TRA	Amount of transfers sent measured in Tanzania Shillings
INCOM	Amount of pre-transfers income Tanzania Shillings
AGESQ	The square of the age of the household head,
FEMALE H	Dummy which takes value 1 is household head is female and zero otherwise,
EDUCH	Is the education level of the household head measured in number of years
HEMPL	Is dummy which takes value 1 if household head is employed and zero otherwise
WHEMPL	Is a dummy which takes value 1 if both head and spouse are employed
HSIZE	Is the household size
PENSION	Is the amount of monthly pension received by head
RETIREE	Is dummy which takes value 1 if head is in receipt of pension and zero otherwise
ILL	Is a dummy which takes value 1 if there was a member of the household who was ill
NUILL	Is the number of members who did not carry out their normal duties due to illness
FUNERAL	Is a dummy which takes value 1 if there was a funeral in household in the during the last twelve months
MARRIAGE	Is a dummy which takes value 1 if there was a marriage in the household during the last twelve months
CHILDBI	Is a dummy which takes value 1 if there was a child birth in the household during

Variable	Description
RTH	the last twelve months
RURAL	Dummy variable which take value 1 is the household is located in a rural district
URBAN	Dummy which takes value 1 is the household is located in urban district
MIGR	Dummy which takes value 1 if there is a member who stays in another region/abroad
POLY	Is a dummy which takes the value 1 if the household head is polygamous and zero otherwise
DIVORCE	Is captured using a dummy variable which takes a value of 1 if divorced or 0 for otherwise
WIDOW	Dummy is used 1 for a widow and 0 for otherwise.

3.3   Determinants of income transfers

In order to capture the factors which influence the level of income transfer, the Tobit model is specified as follows:

$$R_j^* = \beta_j' X_j + + \varepsilon_{it}$$

where R_j is a latent dependent variable that captures the ith household's propensity to remit, R_j is the observed amount of transfers sent, X is a vector of a set of regressors, β is a vector of fixed unknown coefficients to be estimated, ε_{it} is the error term which is assumed to be independent and normally distributed with mean zero and variance σ^2.

$$R_j = R_j^* \text{ if } R_j^* \succ 0, \text{ and}$$

$$R_j = 0 \text{ if } T_j^* \leq 0.$$

The assumption is that the decision to remit and the level of transfers are made simultaneously. The following model, whose variables are defined in Table 1, was estimated by using Tobit technique. A variable which influence transfers is reflected by a positive and significant coefficient, while in a case in which a variable has a negative influence then it is reflected by a significant negative coefficient.

$$TR = \beta_0 + \beta_1 INCOM + \beta_2 EDUCH + \beta_3 AGESQ + \beta_4 FEMALEH + \beta_5 HEMPL$$
$$+ \beta_6 WHEMPL + \beta_7 MARRIED + \chi_8 DIVORCE + \beta_9 HSIZE + \beta_9 PENSION$$
$$+ \beta_{10} RETIREE + \beta_{11} ILL + \beta_{12} NUILL + \beta_{13} FUNERAL + \beta_{14} RURAL + \beta_{15} URBAN$$
$$+ \beta_{16} MIGR + \beta_{17} WIDOW + \beta_{18} MARRIAGE + \beta_{19} CHILDBIRTH + \beta_{20} POLY$$

3.4   Impact of Income Transfers on Poverty

In order to assess the impact of inter-household income transfers on poverty, the study follows procedure proposed by Adams (2004). This entails comparing the incidence, depth and severance of poverty between remittance receiving households and non-beneficiary households. Three measures of poverty were considered namely, poverty head count index (P0), poverty gap index (P1) and the squared poverty gap index (P2). The poverty gap is

defined as the percent of the population living under the poverty line during the survey period. In order to capture the depth of poverty, poverty gap index was used. The poverty gap refers to the amount by which the per capita income (expenditure) falls short of the Poverty line. Before estimation the variables were computed and compared. Model specification draws from Chipeta and Kachoka (2004). Due to endogenity problem between retransfers and poverty, 2SLS approach was used. That is, the impact of remittances on poverty was modelled in two stages. First, a single equation was estimated in which income transfer was treated as an explanatory variable together with other household characteristics. The regression between a variable 'private income transfer' as a dependent variable on number of males within a household , number of migrant a household is having and if a household is having a child who is under 5 years was estimated prior to the estimation of the second stage probit. Analytical results confirmed that those variables could be treated as instrumental variable. Analytical result for the second stage probit model suggests no effect of the private income transfer on the reducing poverty. This is consisted with the earlier results before instrumental variables were adopted. Functional forms for a probit technique is as depicted below;

$$\Pr ob(yi =1) = \phi(.)\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon .$$

Where Yi=1 is the probability of the household being poor and Yi=0 is the probability of the household not being poor; Xi is a vector of explanatory variables (see table 3.1); β_s are coefficients, and ε is error term. In the second stage, instrumental variables are employed. The linear probability model takes the following form:

$$R_t = \beta_1 ER_j + \beta_2 X_t + ...\mu_t$$

$$E[Po / R_t = 1]\beta_1 X_t + ...\varepsilon_t \text{ where } \varepsilon_t \text{ and } \mu_t \text{ are uncorrelated.}$$

3.5   Data and Estimation

Two types of data were used: primary and secondary (census). Primary data were obtained from a survey conducted in 8 regions in Tanzania mainland in year 2006 and covered 8 regions namely, Dar es Salaam, Tanga, Kilimanjaro, Arusha, Tabora, Mara, Mbeya and Iringa. The regions were selected using both purposive and random sampling techniques, mainly to capture the major sources and destination of income transfers, and help assess the impact of income transfers on poverty. From each region, two districts: urban and rural were visited to capture transfer differences between the areas. In total, 1241 households were interviewed, using structured questionnaire. The questionnaire captured both qualitative and quantitative data including size, nature, direction and reasons for transfers; and households' characteristics. The field survey information was used to supplement information from the Household Budget Survey (2000/01) (HBS). The HBS was adjustment to account for inflation changes; a steady inflation rate of 5 percent was assumed. This information enabled computation of basic need poverty line.

Poverty analysis involved computation of three measures namely, head count ratio (P0), poverty depth (intensity=P1) and severity of poverty (P2) in order to establish household welfare status without transfer income. The head count ratio (P0) which is also known as the incidence of poverty, implies proportion of people with income below the poverty line. Poverty gap or depth (P1) is equal to the incidence of poverty multiplied by the average gap between the poverty line and the income of a poor household expressed as a percentage of the poverty line. Therefore, it takes into account the depth of poverty and percentage number of poor households. For the case of P2, this is a measure of severity of poverty. According to Adam (2004), P2 takes into account the degree of inequality among poor households as well as the depth of poverty and number of poor households. This is a squared poverty gap. In order to gauge effects of private income transfer within households, income was disaggregated into pre transfer income and amount of remittance received. Poverty analysis was carried before and after income transfer.

From the data sets, different variables were also constructed to enable test the hypotheses. Computation of household parameters such as expenditure and income was done with a consideration of adult equivalent scale in order to attain per capita income and or expenditure for easy description. Such characteristics provided an idea on household's welfare status. Household accessibility to social services such as water and health was also examined because it could influence public and private income transfers.

Estimation of spline equation required to decompose pre transfer income into different income quartiles. The first income quartile represented the lowest income stratum, while the fourth quartile was for the highest income earners. The robustness of the model in explaining variation across households was tested by the use of the F-test statistic. Identification of determinants of income transfer employed a Tobit model in which household expenditure was used as a dependent variable. Prior to estimation household expenditure was used as a criteria for categorising them into poor and not poor (expenditure falls below or above the basic poverty line).

4.0   RESULTS AND DISCUSSION

4.1   Motives of Private Income Transfer

Results from the spline equation estimations suggest that coefficient of the pre transfer income variable bears a positive sign and it is significant at 1percent. This implies that pre transfer income influences positively the level of transfer. This evidence applies to the lowest up to the third income quintile only. Generally, the finding supports the view that income transfer based on exchange motive existed in the surveyed areas. Implication of this finding is that, a public transfer policy, for example in the form of social security, may not crowd out private transfers. In disaggregating the data set into rural and urban, a complete different scenario emerged, mainly supporting coexistence of mixed motives. The mixed motives approach to private transfer behaviour does not have any obvious implications for non-linear transfer with respect to donor income (Cox et al., 2004).

Unlike for urban where the first through the third quintile of income transfers were significant, the first income quartile was dropped for the rural area, whereas the second, third and fourth quartiles depicted a negative income effect, but only the fourth quartile is significant. This finding suggests that as the pre-transfer income increases it reduces net transfer in the rural areas. As such, this is in support of altruistic income transfer view which is mostly found where people are affected by poverty and have their relatives who relatively better off. Descriptive analysis has revealed almost exact features of poor household related to level of education and even housing condition.

Testing of the risk sharing behaviour could not confirm presence of insurance or risk pooling strategy. Such findings are also supported by the descriptive statistics which revealed that, 70 percent of the respondents reported that transfer were done to support general welfare, which is a further confirmation of altruistic motive.

4.2   Determinants of Private Income Transfer

Findings indicate that, coefficient of pre transfer income is significant but bears a negative sign for rural areas. The implication of this result is that increasing pre transfer income could reduce amount transferred for rural area, but increase it for urban area. Coefficient of age for rural and urban exhibit positive and negative signs, respectively. The negative sign for the urban variable may be explained by the fact that a larger proportion of income transfer for urban areas was in the form of financial loans. Loans are normally associated with repayment risks implying that higher risk could attract less transfer; this is more so with the old people. Also, education seems to influence positively the level of income transfer in both rural and urban areas. As for the employed head of household, the coefficient was significant and negative for rural areas but insignificant for urban. Coefficient for migration was significant and positive for urban area

implying urban based household also receive transfer income from socially related individuals located in other geographical locations.

4.3   Impact of Private Income Transfer on Poverty

Income status of the respondents within the study area is clearly reflected by the where they sought medical services. From the descriptive statistics it has shown that, majority of the people sought medical services form the public hospital or health centre. This has different implications. It may suggest that majority of the people prefer public hospitals or health centre, as they can hardly afford relatively high cost charged by private ones. It may also imply distinct health services offered by the public as compared to private heath centre. Thirdly, a fact that private sector is a profit seeker, will be prompted to invest in areas where people have purchasing power of the services offered. Given that respondents with the study area are mostly poor with relatively low purchasing power then they often need income transfer from other socially related households in order to sustaining themselves. This is proven similarly by the analytical results estimated using a probit model. Based on the findings, an increase in total household income which includes transfer income leads to reduction in poverty. Such findings, allows us to conclude that inter household private income transfer has an impact on poverty reduction and that the effect is more skewed to rural dwellers.   Contribution in rural areas is around 6 percent, while it is only 1.8 percent in urban area. Such results support what Cox et al., (2004) found that, private transfers alleviate poverty, in the sense that poverty rates calculated without including private income transfers were much higher than actual ones.

The analysis of the impact of income transfer on gender depicts that male headed households derive more benefits than female headed household in terms of poverty reduction. In this respect male headed households are also the major recipient of remittances compared to female headed households. The magnitude of impact is much higher to rural males than to urban female; the same scenario is repeated when a comparison is made between female urban and male rural. Consideration of marital status, show that private income transfers contribute towards poverty reduction by almost half in rural areas. The rural single seem to be unaffected by the isolation of transfer income, perhaps haven't assumed heavier social responsibility and chances of having an immigrant family member is also reduced compared to when one is married. Transfer income eliminate poverty completely among the urban cohabiting group, however their level of poverty outside the transfer network is comparatively very low.

Table 2: Incidence, Depth and Severity of Poverty with Income Transfer

	Head count ratio		Poverty gap		Poverty severity	
Urban		Rural	Urban	Rural	Urban	Rural
Overall	2.6	13.8	0.8	4.4	0.3	2.1
Gender						
Male	1.9	13.1	0.5	4.3	0.1	2.0
Female	4.1	16.3	1.5	5.2	0.8	2.7
Marital status						
Married	2.6	14.2	0.6	4.5	0.2	21.7
Single	1.5	0	1.4	0	1.4	0
Divorcee	2.0	12.5	0.8	4.2	0.3	2.8
Widow	4.6	17.7	1.3	5.7	0.4	2.7
Cohabiting	0	4.1	0	1.7	0	0.7
Education level						
None	6.2	24	1.6	7.7	0.4	3.9
Primary	3.0	12	0.9	3.9	0.3	1.8
Secondary	1.5	9.0	0.6	2.2	0.5	0.6
post primary	0	0	0	0	0	0
post sec	0	0	0	0	0	0
Degree	0	0	0	0	0	0
adult education	0	16.7	0	6.9	0	2.9
Occupation						
agricultural	8.8	17.3	3.5	5.7	1.9	2.7
Employee	0	5.7	0	0.2	0	0.01
self employed	2.1	6.0	0.5	2.0	1.7	0.9
Others	0.8	12.9	0.8	5.5	0.2	2.8

Source: Household survey data (2006)

Table 3: Incidence, Depth and Severity of Poverty without Income Transfer

	Head count ratio		Poverty gap		Poverty severity	
Urban		Rural	Urban	Rural	Urban	Rural
Overall	4.4	20.6	1.2	7.3	0.5	3.7
Gender						
Male	3.2	20	0.8	7.1	0.3	3.7
Female	7.4	22.8	2.3	8.1	1.0	4.1
Marital status						
Married	3.9	21.7	1.1	7.6	0.4	3.9
Single	6.2	0	1.7	0	0.8	0
Divorcee	6.2	20.3	1.9	6.1	0.9	3.3
Widow	6.1	23.5	1.8	8.9	0.7	4.7

Cohabiting	1.7	4.6	1.7	2.4	0.2	1.3
Education level						
None	7.8	42.1	2		0.7	
Primary	5.6	16.6	1.7		0.7	
Secondary	2.1	10.9	0.5		0.2	
post primary	0	14.2	0		0	
post sec	0	0	0		0	
Degree	0	0	0		0	
adult education	0.5		8.2		1.3	
Occupation						
agricultural	14.4		3.7		1.6	
Employee	0.5		0.1		0.6	
self employed	3.5		1.1		0.4	
Others	6.2		1.8		0.7	

Source: Household survey data (2006)

Relationship between education level and poverty status is clearly evident, as those without formal education are also highly affected by the poverty. Analytical results above suggest that, as one climbs the education leader chances of remaining poor is declining. Relationship between type of occupation and impact of transfer income indicate that, with remittances there is no an employed person who is below the basic poverty line while isolation of transfer amount suggest a 0.5 percent head count ratio, 0.1 poverty gap (poverty intensity) and 0.6 percent poverty severity.

5.0   CONCLUSION

This study was motivated by existent few studies which have been undertaken so far in Tanzania on the subject matter of private income transfer. In this respect we were motivated to examine how impact of inter- household income transfers on poverty reduction.   More specifically, the study envisaged at establishing motives for private income transfers, analysing important factors which influence inter household income transfers, establish extent at which such transfers were targeted towards the poor, and finally analyse the impact on poverty at household level. On the basis of the findings a conclusion is drawn that private income transfers in the survey areas are explained by different motives. Altruism motive prevails in rural areas which is exactly what the theory predicts. Poverty is a rural phenomenon in Tanzania; therefore income transfer is solely for helping family members with relatively low income. This is similar to what was observed by Kazianga (2004) in which private transfers were also skewed towards poor households in the rural areas. Exchange motive was found in urban areas where income is relatively higher compared to rural areas. Therefore designing of a social security or any pro-poor program will constitute a crowding out effect on private initiatives. A program of the same type will crowd in such initiatives in urban areas where, exchange motive prevails. In terms of the determinants of income transfer, the study has found that age has an influence the decision to transfer income.

In rural areas, age triggered income transfers partly as informal pension. In contrast, education level and migration seem to drive income transfers consistent with exchange motive of income transfer. Further, inter household private income transfers has a positive effect on poverty reduction, especially in rural areas. Impact of private income transfer is apparent is both rural and urban areas, reflecting a need to scale up initiative of this kind in order to complement public pro-poor efforts.

6.0   REFERENCES

Adams, R.H. and J. Page (2003), "International Migration, Remittances, and Poverty in Developing Countries", *World Bank Policy Research Paper No. 3179*

Adams, Richard H. (2004),"Remittances and Poverty in Guatemala," *World Bank Policy Research Paper NO. 3418*

Altonji, Joseph G, Fumo Hayashi and Lawrence J. Kotlikoff (1997), "Parents Altruism and Inter vivos Transfers: Theory and Evidence," *Journal of Political Economy*, 105(6)*1121-66*

Barro, R.J. (1974), "Are Government Bonds Net Wealth?" *Journal of Political Economy 82, 1095-1117*

Becker, Gary S (1974), "A Theory of Social Interactions," *Journal of Political Economy, 82 1063-1093*

Chipeta, C. and Kachaka W. (2004), "The Role of Migrant Remittances in an Unstable Economy: A Case Study of Malawi," A Paper Presented to Global *Development Network (GDN)*, Washington DC

Cox, D, Eser, Z and Jimenez, E (1998), ": Motives for private income transfers over the life cycle: an analytical framework and evidence for Peru, *Journal of Public Economics, 55, 57-80*

Cox, D, Hansen, B.E, Jimenez, E (2004): "How Responsive are Private Transfer Incomes: Evidence from Laissez-faire Economy," *Journal of Public Economics 88(2004) 2193-2219*

Cox, Donald (1987): "Motives for Private Income Transfers," *Journal of Political Economy*, University of Chicago Press Vol 95(3) pages 508-40

Cox, Donald and Jakubson, G (1995), "The Connection between Public Transfers and   Private interfamily transfers," *Journal of Public Economics*, 55,57-80

Cox, Donald, Bruce E. Hansen and Jimenez, Emmanuel (2004), " How Responsive are Private Income Transfers to Income? Evidence from a Laissez- Faire Economy. Journal of Public Economics 88. The World Bank. Washington, DC. USA.

Jorge Mora and Edward Taylor (2006). Determinants of Migration , Destination, and Sector Choice; Disentangling Individual, Household and Community Effects. International Migration, Remittances and the Brain Drain. Edited by Caglar Ozden and Maurice Schiff.

Frankenberg, E, L.Lillard and R.J.Willis (2002), "Patterns of Intergenerational Transfers in South East Asia, *Journal of Family and Marriage 64(627)-64*

Kazianga, Harounan (2003), "Motives for Household Private Transfers in Bukina Faso," Social Science Research Network Official Website http://ssrn.com, Economic Growth Centre, Yale University, *Centre Discussion Paper No 895*

World Bank (2005), *World Economic Outlook*, World Bank, Washington D.C.

United Nations Conference on Trade and Development (2010). Impact of Remittances on Poverty in Developing Countries.

John Gibson, Suzan Olivia and Scott Rozelle (2004) . How Widespread are Non Linear Crowding out Effect? The Response of Private Transfer to Income in Four Developing Countries.

ESRF PUBLICATIONS

Discussion Papers

1. The Role of Mobile Phones on Sustainable Livelihood. A.K. Hassan and Dora Semkwiji, August 2011

2. Inter Household Private Income Transfers and Poverty in Tanzania**.** Nassoro Hussein and John Kajiba. September 2011

3. Improving Public Private Partnership (PPP) in Health Services Delivery in Tanzania: Successes and Constraints. Dr O.Mashindano, Dr. F Kessy and Josephat Itika, September 2011

4. Poverty Escape Routes in Central Tanzania: The Case of Villages from Dodoma and Singida Regions (Volume 1). Dr O. Mashindano; Dr F. Kessy; Prosper Charles and Dennis Rweyemamu, September 2011.

5. Poverty Escape Routes in Central Tanzania: The Case of Villages from Dodoma and Singida Regions (Volume 2). Dr O. Mashindano; Dr F. Kessy; Prosper Charles and Dennis Rweyemamu, September 2011.

6. Poverty Escape Routes in Central Tanzania: The Case of Villages from Dodoma and Singida Regions (Volume 2). Dr O. Mashindano; Dr F. Kessy; Prosper Charles and Dennis Rweyemamu, September 2011.

7. Aligning and Harmonizing the Livestock and Land Policies in Tanzania. Dr Furaha Lugoe, September 2011

8. The Impact of Globalization on the Labour Market: A Case Study of Tanzania. Working Paper Series No. 18. Beatrice Kalinda Mkenda. September 2006.

9. Capital Markets: The Case of Tanzania. Working Paper Series No. 19. Allan Syril Mlulla. October 2006.

10. Globalization and Rural Household Welfare in Tanzania. Working Paper Series No. 15. Beatrice Kalinda Mkenda. August 2005.

11. Agricultural Marketing and Supply Chain Management in Tanzania: A Case Study. Working Paper Series No. 16. Elina Eskola 2005.

12. Analysis of Factors Hindering FDI Flow into the Agricultural Sector in Tanzania. Working Paper Series No. 17. David A. Nyange. 2005.

Policy Dialogue Series

1	Strengthening Microenterprises in Tanzania: The Case of Small Scale Vegetables in Arusha
   Dr O. Mashindano; Dr B. Mkenda and Vivian Kazi, September 2011

2	Experience of Tanzania and Uganda in the use of Research based Evidence to Influence Policy Vivian Kazi, September 2011

3	Trade, Development and Poverty: The Case of the Textile Industry, by Josaphat Kweka and George Kabelwa (2006).

4	Trade, Development and Poverty: The Case of the Fishery Industry, by Josaphat Kweka and George Kabelwa (2006).

5	Measuring the Impact of HIV/AIDS on the Electoral Process in Tanzania, by Flora Kessy, Ernest Mallya and Oswald Mashindano (2006).

Quarterly Economic Reviews (QER)

1. QER Volume 10 Issue 3 for July – Sept, 2010
2. QER Volume 10 Issue 2 for Apr – Jun, 2010
3. QER Volume 10 Issue 1 for Jan – Mar, 2010
4. QER Volume 9 Issue 4 for Oct Dec, 2009

Annual Reports

1. ESRF Annual Report, 2010
2. ESRF Annual Report, 2009
3. ESRF Annual Report, 2008
4. ESRF Annual Report, 2007
5. ESRF Annual Report, 2006
6. ESRF Annual Report, 2005

Newsletters

1. Newsletter Volume 10 – Issue 1, 2011
2. Newsletter Volume 9 – Issue 2, 2010
3. Newsletter Volume 9 – Issue 1, 2010
4. Newsletter Volume 8 – Issue 2, 2009
5. Newsletter Volume 8 – Issue 1, 2009

Policy Brief Series

1. The Land Factor in Mining Gold Reserves in Tanzania. Dr Furaha Lugoe, September 2011

2. Governance Breakdown in the Urban Malaria Control: Policy Reflections in the Outburst of Msimbazi Valley Mosquito, Dar es Salaam. Dr Francis Mwaijande, September 2011

3. Value Chain Analysis of Grapes Sub-sector. Vivian Kazi and Dr O. Mashindano, September 2011

TAKNET Policy Brief Series

1. Importation of Counterfeit Products: What should be done? Moderated by Deogratias Kishombo, Synthesized by: Deogratias Mutalemwa

2. Msongamano wa Magari Jijini Dar es Salaam, Nini kifanyike? Moderated and sythesized by Boniface Makene

3. Informal Sector Taxation in Tanzania: Moderated by Apronius Mbilinyi; Synthesized by: Deogratias Mutalemwa

4. Tanzania National Poverty Reduction Framework – MKUKUTA what are the lessons: Moderated by Dr. O. Mashindano and views synthesized by Apronius Mbilinyi

5. School Competition and Student Learning Rights: Moderated by Dr. Donatilla Kaino and views synthesized by Joseph Ibreck

6. Tanzanian Cultural Environment and Economic Development: Moderated by Festo Maro and Views summarized by Deogratias Mutalemwa

7. Social Welfare and Aging in Tanzania: Moderated by Festo Maro andSynthesized by Deogratias Mutaemwa

8. Growth and Poverty Reduction in Tanzania: Why such a mismatch? Moderated by Dr. Oswald Mashindano – 2009.

9. The Impact of Information and Communication Technology (ICT) on Rural Livelihoods. Moderated by Abdallah K. Hassan – 2009.

10. Foreign Direct Investment Incentive Package in Tanzania. Moderated by Festo Maro – 2009

11. Tatizo la Walemavu wa Ngozi (Albino) Tanzania: Nini Kifanyike? Synthesized by Dora Semkwiji, 2009

12. The Effect of the Global Financial crisis and the Way Forward for Tanzania. Moderated by Dr. Donatila Kaino, 2009

13.   Petroleum Policy and Constitutional Paradox in the United Republic of Tanzania. Moderated by Festo Maro, 2009

14.   What will be the Impact of the 2009/2010 Government Budget to Economic Growth and Poverty Reduction? Moderated by Dr. H. Bohela Lunogelo,2009

15.   Social Protection and Ageing in Tanzania. Moderated by Festo Maro, 2009

Descriptive Analysis of Household Survey Data

As depicted in Table 5.1, a higher proportion of those without formal education live in rural areas, while among those with formal education majority of them have primary education. Urban is leading in other levels of education, with exceptional of adult education where rural dwellers displayed a higher percentage. Student household heads are only found in urban areas, reflecting adult education services mostly offered in urban areas. Proportion of male headed household is higher in rural than urban area, while among female headed households urban is leading.

Table 4 : Basic Characteristics of the household head

Education level	Urban	Rural	Overall percentage
No formal	8.3	17.7	11.9
Primary	56.0	65.5	59.6
secondary	24.4	11.7	19.6
post primary	27	1.5	2.7
post secondary	3.3	0.6	2.3
Degree	3.4	1.5	2.7
Adult education	0.3	1.3	0.6
Student	0.8	-	0.5
Gender	Percent	Percent	Percent
Male	71.9	80.5	75.2
Female	28.1	19.5	24.8
age group	percent	percent	Percent
<18		0.1	0.1
18-30	6.5	3.1	9.6
30-45	22.9	14.6	37.5
46-60	21.4	11.6	33.0
>60	11.2	8.6	19.8
Marital status	Percent	Percent	Percent
Married	60.3	73.2	65.2
Single	8.3	1.5	5.7
Widow	16.9	14.4	16
Divorcee	6.2	5.1	5.8
cohabiting	7.3	5.1	6.4

Source: Household Survey data (2006).

Proportion of married couples is higher in rural area, while urban is associated with higher proportion of widow, single, divorcee and cohabiting.

Housing Condition

Analytical results indicate that urban dwellers own better house as compared to rural areas. Percentage of single family hut seems to be higher in rural than urban areas. Normally type of single family (hut) which are constructed in rural area are made of locally available material such as thatching grass , mud and thus they are relatively cheap to compared to those of urban areas. The same applies to information related to existence of several huts /building which seems to be higher in rural area. Percentage of people who own rooms which are self contained is higher in urban compared to rural area, a confirmation that urban areas are characterized by good housing condition.

Housing condition is often used to reflect standard of living. In view of that, information provided in Table 3 suggest that a high proportion of the rural, their walls were constructed using mud brick while a lowest proportion used galvanized iron. Nevertheless the results suggest a much higher value compared to what was reported in the household budget survey of 2001/2002 on proportion of house made up of mud brick for all areas (urban, rural and for overall Tanzania mainland). The proportion of houses with walls made up of stone/brick is exceptionally low in rural areas. High proportion of rural houses are having earth floor, thus signifying the assertion that poverty is a rural phenomenon. In urban areas, the result seems to be consistent with other welfare indicators, a reflection of better standard of living. Surprisingly a proportion of house with a floor made up of tile is not very far from that of urban, perhaps this is attributed by a social norm in some rural areas, that even an migrate is supposed to build a house where he or she is hailing. This is a dominate behaviour particularly in the northern regions of Tanzania mainland (Kilimanjaro and Arusha region). Migrant are in most cases financially capable and thus stand a better chance of building comparatively better house in rural areas as well.

Table 5: Housing condition

Main Construction Materials of Outside Walls	Urban	Rural
Mud brick	19.1	45.5
Bamboo Tree	0.3	0.6
Galvanized/Iron	0.7	0.2
Wooden Planks	1.3	5.3
Stone/Brick	55	13
Cement	17.8	8.9
Mud and Wooden	5.9	28.3
Main Flooring Material		
Earth	13.1	60.4
Wood	0.3	0.6
Stone	0.5	0.6
Cement	83.9	36.4

Tile	1.8	1.3
Bamboo	0.4	0.2
Other	0	0.4
Main Roofing Material		
Grass	1.6	34.3
Mud	0.1	1.1
Wood/ Planks	0.1	0.6
Galvanized/Iron	92.3	62.1
Concrete / Cement	3.1	1.5
Tiles	1.6	0.4
Asbestos	1.2	0
Most window fitted with		
Grass	7.2	7.7
Screen/ wire gauze	59.6	27.7
shutter / louvers	29.9	48.1
Curtain	0.8	3.8
Non Cover	1.6	4.9
No windows	1	7.9
House ownership		
Member of the household	64.6	82.2
Relative	3.3	0.9
Private employer	0.8	0.6
Government	2.9	0.9
Private individual	28.5	11.4

Source: Household survey (2006)

In view of the results on the roofing materials, it seems that proportion of house roofed with iron sheets has increased from the previous figure reported in the household budget survey of 2001/2 which was 31.1. Proportion of rural house with windows fitted with shutter or louvers is higher is rural areas than in urban areas, this is accounted by the fact that, some of the rural areas which were covered by this survey are in relatively cold weather, thus obliging to have a wooden or glass shutter window to avoid cold weather. In terms of ownership, both urban and rural dwellers own a house, although a proportion of those who seeks to be tenant is higher in urban compared to rural areas.

Household Shocks

Majority of the people sought medical services form the public hospital or health centre (Table 6). This has different implications. It may suggest that majority of the people prefer public hospitals or health centre, as they can hardly afford relatively high cost charged by private ones. It may also imply distinct health services offered by the public as compared to private heath centre. Thirdly, a fact that private sector is a profit seeker, will be prompted to invest in

areas where there is a willingness and ability to pay among the people. Purchasing power in rural areas is relatively low; therefore there is great likelihood that a private sector will prefer to invest where people have relatively high income. This shows that although private sector is complementing government effort on provision of health services, but yet public sector is still a dominate one.

Nevertheless analytical results below suggest that within the sample very few happened to have a household member who fallen sick during the previous two years. But this was related to major illness which in most cases may compel one to appeal for assistance from other relatives who may have migrated. Such a shock may induce a transfer, especially when private income transfer is altruistically derived whereby a household member who has migrated may feel obliged to remit income to a person who is sick back home or if a risk sharing motive prevails.

Table 6 suggests that the new baby borne is the major type of shock of which households in both urban and rural areas experienced. The second type of a shock is death of a family member of the household. House loss and divorce are type of shocks which were reported by very few households. Information related to whether a household experienced a shock is important as far private income transfer is concerned. Poor households may not protect adequately themselves from events that affect their well being, such as drought, pestilence, unemployment or illness (Cox and Jimenez, 2003). Given a situation an external intervention may be required and as such private income transfer provides a potential means of insurance especially where a risk sharing behaviour prevails.

Table 6: Type of Shocks Experienced

Shock	percent
Marriage	7.4
New baby	35.9
Moved away	8.9
Crop loss	19.1
livestock loss	10.6
House loss	0.7
Major illness	29.1
Job loss	1.3
Divorce	1.1
Death	29.5
Other	1.1

Table; 7 Household with a member who fallen sick in the previous 2 years

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	245	19.7	19.7	19.7

No	996	80.3	80.3	100.0
Total	1241	100.0	100.0	

Source: Household Survey data (2006)

Table; 8 Household Involved in Transfer Network

Both recipient and donor	560
Donor	826
Recipient	822
Non Participant	153
Total	1244

Source: Household Survey (2006)

Table 9: Spline equation for overall situation

In-tr	Coef	Std.Err.	t	p>t
Itotal	0.046062	0.006	7.64	0
P1	262373.5	66152.92	3.97	0
P2	178732.8	64709.36	2.76	0
P3	136467.3	61128.85	2.23	0.026
P4	dropped			
Agesq	10.96779	13.12466	0.84	0.404
Educh	65298.76	17043.06	3.83	0
Hempl	-38274.2	48659.97	-0.79	0.432
Hhsize	9839.32	6383.499	1.54	0.124
Retiree	162602.3	80380.84	2.02	0.043
Ill	1419.059	5119.238	0.28	0.782
Null	-21838.31	23114.63	-0.94	0.345
Funeral	31553.31	44647.45	0.71	0.48
Marriage	90654.03	67324.18	1.35	0.178
Newbaby	-20880.29	41118.85	-0.51	0.612
Uurban	113800.7	37060.93	30.7	0.002
Rrural	dropped			
femaleh	155615.7	40072.62	3.88	0
whempl	-127036.5	134801.3	-0.94	0.346
Mgr	66380.39	35495.93	1.87	0.062
pension	0.0944743	0.089	1.06	0.289
-cons	-407838.1	94983.06	-4.29	0

Table 10: Spline for urban

In-tr	Coef	Std.Err.	t	p>t
Itotal	0.4607	0.0078	5.89	0

P1	397159.1	100667.8	3.95	0
P2	25714.1	98201.56	2.62	0.009
P3	190485.1	96061.18	1.98	0.048
P4	dropped			
Agesq	9.556	20.4548	0.47	0.641
Educh	82064.34	24019.58	3.42	0
Hempl	-38264.7	65754.16	-0.58	0.561
Hhsize	20296.54	9755.405	2.08	0.038
Retiree	189888.6	111336.9	1.71	0.089
Ill	-280.807	6074.493	-1.06	0.291
Null	-41043.5	38844.01	0.27	0.786
Funeral	18126.88	66673.19	1.56	0.12
Marriage	155308.6	99611.72	0.37	0.71
Newbaby	23699.37	63719.27		
Uurban	dropped			
Rrural	dropped			
Female	217164.6	58772.05	3.7	0
Whempl	-139490	188745.6	-0.74	0.46
Mgr	105286.2	52413.98	2.01	0.045
Pension	0.13061	0.1084	1.2	0.229
-cons	538572.3	140271.2	-3.84	0

Table 11: Spline for Rural

In-tr	Coef	Std.Err.	t	p>t
Itotal	0.0962	0.013639	7.06	0
P1	dropped			
P2	-29905	46237.66	-0.65	0.518
P3	-47419.9	49643.6	-0.96	0.34
P4	-216848	73413.33	-2.95	0
Agesq	7.3067	12.76927	0.57	0.568
Educh	26460.32	19438.99	1.36	0.174
Hempl	-37979.8	62188.16	-0.61	0.542
Hhsize	427.71	6429	0.07	0.947
Retiree	130360	104222	1.25	0.212
Ill	33774.64	42009.78	0.8	0.422
Null	-8816.3	20557.6	-0.43	0.668
Funeral	56020.61	45488.5	1.23	0.216
Marriage	19850.61	70615.94	0.28	0.779
Newbaby	-42542.6	40413.07	-1.05	0.293
Uurban	dropped			

Rrural	dropped			
Female	46893.36	42091.8	1.11	0.266
Whempl	-122942	152238	-0.81	0.42
Mgr	11938.85	36960	0.32	0.747
Pension	-0.2394	0.2189	-1.09	0.275
-cons	-28064.8	68303.68	-0.41	0.681

Table 11: Determinants of Income Transfers in Rural areas

tra	Coef	Std err.	t	P>t
Income	-0.0623	0.158639	-3.93	0
Agesq	16.128	27.04547	0.6	0.551
Educh	57660.61	34756.08	1.66	0.098
Hempl	307493.9	104008.1	2.96	0.003
Hhsize	12425.4	11613.47	1.07	0.286
Retiree	-52622.96	253286.7	0.21	0.836
Ill	129695.8	79443.12	1.63	0.104
Null	-32996.05	51066.47	-0.65	0.519
Funeral	-49568.85	81262.91	-0.61	0.542
Marriage	-18609.64	140784	-0.13	0.895
Newbaby	-100735.4	75152.71	-1.34	0.181
Female	-45476.92	85734.76	-0.53	0.596
Whempl	-328403.4	225784.1	-1.45	0.147
Mgr	38376.16	68604.72	0.56	0.576
Pension	0.064251	0.393	0.16	0.871
-se	533178.8	21486.1	-0.5	0.62

Source: Household Survey (2006)

Table 12: Determinants of income transfers in urban areas

Tra	coef	std.err.	t	p>t
Income	0.183493	0.003681	4.99	0
Agesq	-30.46338	14.8994	-2.04	0.041
Educh	32355.57	15562	2.08	0.038
Hempl	-41972.3	37119.79	-1.13	0.259
Hhsize	-533.7847	6077.694	-0.09	0.93
Retiree	17653.51	84593.98	0.21	0.835
Ill	-871.8	3665.834	-0.24	0.812
Null	-10290.17	28241.61	-0.36	0.716
Funeral	-26090.04	43793.99	-0.6	0.552
Marriage	97826.94	61570.66	1.59	0.113
Newbaby	63535.14	40220.15	-0.62	0.115
Female	-24761.24	40076.86	0.76	0.537

Whempl	67518.33	88458.61	4.37	0.446
Mgr	139676.4	31996.68	-0.34	0
Pension	-0.0109	0.031938	0.43	0.731
-cons	25844.8	60134.51		0.668
-se	355053.5	11063.44		

Table 13: Probit Results on the Impact of Private Income Transfer on Poverty

Probit estimates   Number of obs   =   411

                              LR chi2(14)   =   62.90

                        Prob > chi2   =   0.0000

Log likelihood = -29.620113   Pseudo R2   =   0.5150

poor	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
income	-1.445372	.3146877	-4.59	0.000	-2.062148	-.828595
transfer_	3.08e-06	9.83e-07	3.13	0.002	1.15e-06	5.01e-06
age	-.0128957	.08169	-0.16	0.875	-.1730051	.1472137
agesq	.0001697	.0007969	0.21	0.831	-.0013921	.0017316
educh	.0961503	.1396507	0.69	0.491	-.17756	.3698607
hhsize	-.5641235	.1800361	-3.13	0.002	-.9169878	-.2112592
retiree	.7125179	.8585884	0.83	0.407	-.9702844	2.39532
ill	-.3708815	.6237472	-0.59	0.552	-1.593404	.8516406
null	.3075823	.227882	1.35	0.177	-.1390582	.7542227
funeral	.8592571	.5050816	1.70	0.089	-.1306847	1.849199
marriage	-.8354725	.8642718	-0.97	0.334	-2.529414	.8584691
newbaby	-.4390963	.6913172	-0.64	0.525	-1.794053	.9158606
femaleh	.3081642	.4004379	0.77	0.442	-.4766796	1.093008
mgr	.4692373	.4776813	0.98	0.326	-.4670008	1.405475
_cons	17.43872	4.548554	3.83	0.000	8.523718	26.35372

Source: Household Survey data (2006).

ESRF is an independent, non-governmental research institute registered in Tanzania with offices in Dar es Salaam. Its operations began in April 1994 in response to the need for the development of an institutional capacity for policy analysis. The foundation conducts policy-related research, capacity building programmes and policy dialogues that enhance the understanding of policy options within the government, the business community, the donor community, civil society and the growing private sector. It also undertakes demand-driven commissioned studies that conform to its mission.

Vision:
The vision of ESRF is to become a national, regional and international centre of excellence in capacity development for policy analysis, development management and policy research by the year 2015

Mission:
ESRF's mission is to build capacities in economic and social policy analysis and development management.

Objectives:
The foundation's objectives are to build and strengthen human and institutional capabilities in economic and social policy analysis and sustainable development management. ESRF also aims to enhance the understanding of policy options within the government, public sector, business sector, development partners, and in the growing non-governmental sector, mainly in Tanzania and the other East African countries.

The Economic and Social Research Foundation (ESRF)
51 Uporoto Street (Off Ali Hassan Mwinyi Road), Ursino Estate
P.O.Box 31226
Dar es Salaam, Tanzania.
Tel: (+255) 22 2760260, 2760751/52
Mobile: (+255) 754 280133
Fax: (+255) 22 2760062
Email: esrf@esrftz.or.tz
Website: www.esrftz.org