MONEY WILL COME FROM ABROAD

FORMATION OF REMITTANCE EXPECTAITONS AND ITS IMPLICATIONS FOR PERPETUATION OF FAMILY MIGRATION

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A thesis submitted to the Faculty of Humanities and Social Sciences, University of the Witwatersrand, Johannesburg, in fulfilment of the requirements for the degree of Doctor of Philosophy

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DECLARATION

I declare that this project is my original work, achieved through research studies of my own efforts. It is submitted for the degree of Doctor of Philosophy in Demography and Population Studies at the University of the Witwatersrand, Johannesburg. This work has never before been submitted to any institution for academic credit. All sources have been duly acknowledged.

Signed:  .

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Date: ...20th..... day of .....August..... 2012

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Abstract

In any act of household migration, there are movers (the migrant) and stayers (those left behind), and both of these two groups have expectations. The movers expect to make some benefits at the destination while the stayers expect the migrant to send or do something at home of origin. Some work, though limited, has been done to improve our understanding of how potential migrants form their expectations of what they can get from the destination country in studies involving determinants of individual migration. But for those left behind very little is known about how they form their expectations of what they can get from the migrant. The few studies that have been done on this have only used observed flow of remittances to estimate what people left behind expect from migration. Hence these studies equate observed flow of remittances to expected flows. And by this equation, these studies also assume perfect information flow between migrants and relations left behind as well as perfect knowledge to help those left behind to form realistic expectations: expectations that reflects exactly what can be sent to them. Obviously these assumptions are not tenable. These untenable assumptions also leave a hole in our ability to explain why a household will choose to either continue supporting members for migration or not. This is because we cannot tell from observed data alone whether or not the desire to continue to support migration of a household or a family member is as a result of well-informed subjective expectations or not. The crust of the problem here is therefore that by relying on observed data alone we fail to account for the important role subjective expectations or beliefs of those left behind play in decisions for further migration movements, especially within the family.

To be able to unravel this problem we need elicitation of subjective expectations of remittance flows from those left behind. Using data from a specially designed survey in two districts in Ghana, I construct time-adjusted subjective remittance expectations of migrant families at home of origin and analyse the factors that determine the formation of these expectations and how formation of these expectations can help us explain perpetuation of migration within a household. The key analytical models employed in these investigations are summarised below

In order to understand the exogenous determinants of remittance expectations of migrant households, I first of all estimate factors that influence performance of migrant at home of origin and general flow of information between the migrants and the household members left behind. In order to see the effect of remittances on formation of subjective expectations, remittance flow was measured in terms of migrant performance by adjusting the flows to the time period during which

the migrant could do what he or she has done. The items were limited to the popular ones people receive: money for living expenses, establishment of a house and business investment. The theoretical explanation for this adjustment is that if the observed trend in remittance flow has any effect on expectations it would be through individual household's evaluation of what migrants have achieved within a certain number of years. In other words, all things being equal, families whose migrants took much longer period to achieve certain things would have lower levels of expectations than a comparable family whose migrant took relatively shorter period. This is because taking a long time to achieve something at home of origin would breed some kind of skepticism and uncertainty among those left behind as to what they can get from migration. And this skepticism can lead to low levels of expectations. This is also in line with the reference people left behind often make when talking about achievements of migrants at home of origin as they always point to what XYZ has done. Ordinary least squared regression is then used to estimate factors determining level of migrant performance at home of origin after the transformation of the dependent variable: migrant performance. Heckman selection model is also applied to control for possible effect of bias since some households have migrants who have done nothing at home. Kinship ties are the major factors under this investigation.

To determine the main factors influencing information flow, ordinary least squared estimates are used while a generalised ordered *logit* model, with maximum likelihood method, is used to estimate the factors influencing the likelihood of a household getting higher categories of private/dedicated information from the migrant. Major factors for this investigation are kinship ties and performance of migrant at home of origin. Since information flow and remittance flows are suspected to have endogenous relationship, instrumental variables (IV) technique is employed to estimated impact of remittance flow on both private and public information flows. This is important for us to understand how information flow act as exogenous determinant of subjective remittance expectations, and resultant effect on perpetuation of migration.

Once current information flow and performance of migrants have been examined and effects of their exogenous factors estimated, the next stage of the analysis is the examination of effects of these past performance and information flow on household subjective remittance expectations while controlling for other major exogenous factors such as kinship ties, level of education and household wealth. Ordinary least square regression technique is used to estimate major determinants of these levels of expectations. However, to control for possible bias resulting from

the fact that a select group of households may not expect anything, Heckman selection model is applied.

The final analysis is the estimation of impact household subjective remittance expectations on migration-support intentions. Due to the problem of endogenous relationship between expectations and migration decisions, ordinary maximum likelihood estimates would not be very effective in identifying the real impact expectations have on migration decisions. Hence I use maximum likelihood with endogenous repressors to estimate or identify the influence of expectation on potential migration decisions, applying the *probit* model with selection model (*heckprob*) technique. Ordered *probit* analysis is also used to investigate what determines household's desire to support more than one person for migration. The results are summarised below.

Summary of Findings

Economics and sociology literature makes us aware that in order to understand formation of expectations of any kind we first have to investigate two important factors: past events and current information flow, because these are the two factors that hugely influence expectations. Hence, for us to understand remittance expectations, we first have to understand two issues: observed past flows of remittances and current flow of information between the migrant and relations left behind at home of origin.

If remittance flows should influence household or family's (including the extended family members) subjective expectations and the support to move abroad, it should largely do so in terms of what has been observed in the past. In Chapter Six, I investigated the influence of kinship ties on receipts of remittances. As expected, closer migrant relations such as spouse and head of family stand a much better chance of having better performance from migrant than distant kinship ties such as friendship. However when it comes to performance in individual items such as house or business investment, a household cannot rely only on kinship ties with migrant. It should also have some wealth. Specifically, among the kinship ties only spousal relationship was found to have positive effect on migrant performance in areas such as housing and business investment. Thus the influence of kinship ties on observed flow of remittances is mostly limited to money for living expenses, unless the family left behind is wealthy enough to enable allocation of what is sent into other things such as investment in housing and business.

With kinship ties being very influential in the determination of past performance of migrants one would expect that these ties would also influence information flow if the assumption of remittance and information flow being together holds. It has always been assumed by cumulative causation theories of migration that together with the flow of remittances from migrant to relations back at home is the flow of information that connects migrant, potential migrants and those left behind (Massey et al, 1993). If this is the case then relationship should be a key factor in determining information flow from the migrants, because these ties influence flow of remittances. Results from the *2SLS* model show that remittance flow has impact only at the lower levels of private information flow, reinforcing the point that information that comes with remittance flow may just be social issues such as size of family, marital status, and not economic ones. In spite of their strong effect on remittance flow or migrant performance, all the types of kinship ties generally have negative effects on private information flow. Thus kinship ties are not enough for those left behind to get more private information from the migrant relations residing abroad.

It should not be surprising that remittance flows do not lead to higher levels of information flow from the migrants to those left behind. This is because remittances are mostly made up of monetary transfers for living expenses which may not carry much information with it as, in most cases, migrants do not require monitoring. And with electronic transfers of these days, it becomes more implausible to assume that remittance flows, which are mostly limited to monetary transfers, would generate private information as the interpersonal exchanges in these transfers become more and more reduced. But since the lower levels of private information flows only contain pieces of information such as marital status, household size and education levels, it follows that remittance flow may not be the best channel through which relations get important information about the socioeconomic conditions of the migrant. Perhaps this assumption was more plausible about 30 years ago when migrants mostly relied on methods such as using other migrants going home. Families left behind have to rely on their wealth or good level of education to be able to source information from the migrants.

On the other hand, remittance flow or migrant performance has highly significant and positive influence on public information flow, suggesting that what migrants do at home influence some perceived knowledge of the migrants' socioeconomic conditions. It is also interesting to note that factors such as average household education and wealth that have significant positive effect on private information flow have negative effect on public information flow. One can therefore deduce

that the more families are able to access information from the migrants themselves, the less they rely on migration information from nonmigrant sources or the general public in the community of origin. Unfortunately remittance flow is unable to help those left behind to get more information from the migrant. Hence most of them will have to rely on public information.

With the flow of crucial information such as economic conditions of migrants lacking or being inadequate, it can be concluded that there would be some level of uncertainty about conditions. And this level of uncertainty may lead to some guess-work or reliance on information from other sources in the formation of remittance expectations. That is, would their inability to access crucial information on economic conditions of the migrants "push" them to rely on information reaching them from other sources in the formation of expectations? Also if the wealthy and the more educated families are more likely to know more about the migrants, and if knowing more about the migrant is most likely to temper high expectations with realism as hypothesized in this study, would it be fair to conclude that wealthier and more educated families may have ambivalent, if not negative expectation levels?

Results from Chapter Seven show that families would use their experience of what migrants have done at home of origin as a starting point in the formation of their remittance expectations in terms of whether or not they should expect something. But once their expectation status is assured, families are much more influenced by other factors than migrant performance in the formation of their subjective remittance expectation levels. In other words at lower levels of information, remittance expectations seem to be more adaptive to past trends of observed remittance flows. Kinship ties become very significant in this respect in spite of its insignificant influence on information flow. This raises a question of whether or not the effect of kinship ties on formation of remittance expectations is informed by information from the migrants. All the results point to the contrary. The effects of kinship ties on subjective remittance expectations are informed more by past experience of remittance receipts than current dedicated/ private flow of information between the families and the migrants. When kinship ties are interacted with private information their effects on remittance expectations are, however, significantly reduced, indicating that when people take private or dedicated information into consideration their high expectations are very much checked.

What are the implications of subjective remittance expectations form under low levels of dedicated information flow for migration decisions? Chapter Eight sought to provide the answer to this

question. The results confirmed the hypothesis that subjective remittance expectations formed under inadequate flow of dedicated information would lead to increasing desire to support more migration from the family and the opposite should also true. That is under inadequate information flow, subjective remittance expectations have highly positive effect on desire to perpetuate migration more than the demonstrative effect of migrant performance, emphasizing the importance of expectations in perpetuation of migration.

However, the strong effect of expectations and kinship ties on desire to support migration could be reduced if high levels of dedicated information are taken into consideration. Further investigation into why some families with remittance expectations would still not want to support members to migrate revealed that, in addition to private or dedicated information flow, average household education level is a major factor that discourages families with remittance expectations from further supporting members to migrate. This is in sharp contrast with the generally accepted view that education selects families and individuals into migration, especially international migration. This is true in the general population. When only migrant families are sampled, as in this study, the effects of education on migration are tempered with information flow. Education allows the family to access more and more of private/dedicated information which has negative effect on remittance expectations. It is therefore not surprising that education may discourage families with expectations to continue supporting migration. But since most people do not get the private information or do not even consider it as, expectations which are hugely informed by past performance, public information and mere kinship ties would continue to drive perpetuation of migration, at least, at the household level.

DEDICATION

To my mother, Helena Amoah

In memory of my father, Joseph

And

My wife, brothers and sisters, uncles and aunts, nephews and nieces, who though 'scattered' around the globe, make me feel as though we all live under one roof. You nurtured this idea with the strong ties that bind us together.

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CHAPTER ONE
INTRODUCTION

1.1 Introduction

> .... Back home, expectations are so high among family members, friends and relations that it does not matter whether these individuals are able to make it to the so-called 'promise land' or not. It does not matter whether they are employed or not. After all who cares to hear their stories? They are in America and Europe where milk and honey flows, so they have no excuses. The love of parents have grown cold towards their own progenitors and, in some cases, parents have denounced their sons/daughters and warned they should not even step foot at their grave sides when they pass away, because they have not been able to remit them as Johnny has been doing for his parents. Good friends have turned into bad guys and backbiters due to their friend's - in America and Europe - inability to send a mobile phone, money or even assist them to secure a visa to also visit the 'promise land'..... The thinking is that one may be the fortunate one to scale the barb fences successfully to the promise land where the pastures are green *Tsikata, (2006)*

When migration involves households or families, there is always a relationship between the migrant and the members of the family left behind. And what mediates between the two groups is information flow. The migrant is faced with a challenging task of managing information about his/her socioeconomic situation in the destination country which he/she has to share with those left behind. On one hand, a migrant would not want to be too negative about his/her well-being at the destination for two major reasons: firstly being too negative message may send a worrying message to relatives, especially parents. The parents may conclude that the migrant is lying about his/her circumstances, particularly if fellow emigrants from the community of origin are doing well. The migrant may not want this situation to arise as it may lead to some of the relations "growing cold." Secondly, being too negative about his or her socioeconomic conditions may also send a message to other relations and friends, and even the whole community of origin that he or she is a failure in the destination country. On the other hand, being too positive and telling all your economic successes in the destination country may also create unnecessarily high remittance expectations not only from the close relations, but also friends and extended kin (Nyamnjoh 2005). Thus information sharing becomes a crucial factor not only about the management of relationships with those left behind, but also the management of expectation levels.

The other side of this dichotomous relationship, which this thesis is mostly about, is the relations left behind. Since the capital market is poorly developed, access to loans for

investments from financial institutions in many developing countries is quite difficult for an average family. Hence those left behind expect that the migrant would contribute something to improving their livelihoods, especially in the areas of schooling, accommodation and business investment (Massey et al 1993; Adams, 2006; Mazzucato, 2005). These remittance expectations are an extension of the social or cultural inter- and intra-family supports systems well embedded in many African societies. Sociological, economic and demographic literatures show that households support one another with financial transfers and remittances in times of social, environmental and health shocks (Rosenzweiger, 1988; Rosenzweig & Stark, 1989; Root & Jong, 1991). Studies in household migration have found that families participate in migration in order to spread risks among members in different locations. The implicit assumption in this behaviour is that people are to cooperate and live up to various expected responsibilities that come with this unwritten and informal agreement among family members. Meeting these expected responsibilities is not only limited to times of economic shocks but also whenever those who are left behind feel that they are deprived of certain economic status compared to some households in their communities (Stark and Taylor, 1991). The resultant attitude or perception of those left behind is the expectation that their migrant relative abroad has no choice but to help them in improving their livelihood. The expected items may come in various forms, but the notable ones are money for investment in child education, business, housing and supporting migration of other members from the family. In fact it is estimated that almost the entire housing industry in Ghana depends on international remittances (Diko and Tipple, 1992).

Like any contract there is a need for family members left behind to monitor the situation to ensure that the expected flows of remittances are achieved. A major avenue through which this monitoring can be enhanced is information flow between the migrant and those left behind. Unfortunately due to the costs associated with distance and other factors such as migrant's possible unwillingness to share more information as stated above, it becomes difficult for those left behind to know what is going on so as to form their remittance expectations. With a possibility of imperfect monitoring arising from inadequate information from the migrant, it remains to be explained how those left behind get to know about the socioeconomic conditions of the migrant member so as to monitor the cooperation of the migrant and achieve their expected benefits? Some studies point out that in absence of geographical proximity, social norms, cultural values and kinship ties would guide the cooperation of the migrant (Jong, 2000; Mazzucato, 2009). Thus, based on the thrust of

kinship ties and social expectations, families members left behind would have no option but to rely on what the migrant members tell them. However, other studies have found that norms and values are not enough to bring out important information needed to monitor the cooperation between the migrant and those left behind. Hence there is bound to be some information asymmetries (Morduch and Sharma, 2002*;* Chen, 2006; McKenzie et al, 2007). The problem of information asymmetries may be more complex when these subjective remittance expectations are not only from the immediate family members of the migrant, but also from the extended relations who also think they are relationally bound to benefit from the 'fortunes' of the migrant member. The migrant is faced with the problem of managing information across family members in the extended kinship system some of whom might have played varied roles in his/her movement. He or she has to negotiate his/her way through close relations, friends and extended relations with various levels of information about his socioeconomic wellbeing at the place of origin. In the same way, members of the extended family left behind also have to negotiate their ways in getting information about the migrant to help them form levels of their remittance expectations. All this shows that there will be varied levels of information flow to the relations behind either through the migrant's selectivity or unwillingness to share information. It could also be through the inability of those left behind to access the information about the migrant due to costs of information. Thus the problem may not only be that people left behind do not care to hear the stories of migrant members as Tsikata (2006) observes, but rather the crucial stories may not even come to them.

In both cases private or dedicated information flow from the migrant is most likely to be inadequate; hence, subjective remittance expectations of those left behind is also most likely to be heavily influenced by this inadequacy of dedicated private information flow. Consequently other factors such as past flow of remittances or what migrant families see happening in other migrant families in the community of origin become major reference points in the formation of remittance expectation levels. It is therefore not surprising to find families expecting their migrant relations to remit as "Johnny has been doing for his parents." Does this mean that the only way people left behind could form their remittance expectations is to make reference to what other migrant families get? Or could their remittance expectation be formed on the basis of other factors such as relational bonds or contribution to cost of migration? If remittance expectations are at the core of why families engage in migration, as rightly observed by Van Dalen et al (2005) and De Jong (2000), then

how these expectations are formed has some important implications for why families would either choose to continue or to discontinue perpetuating migration. Unfortunately, we have very limited scientific knowledge about how these expectations are formed and consequently how they influence perpetuation of migration within a family.

1.2 Objectives of the study

In order to help address the problem elucidated above, it is the objective of this study to determine exogenous factors in formation of subjective remittance expectations and how these expectations influence family's decisions to perpetuate migration. Specific objectives include the following.

1. To determine the influence of kinship ties on migrant performance at home of origin. A major determinant of subjective expectations is past event of the subject about which the individual forms his/her subjective expectations. Past event here refers to migrant remittance flow. It is mainly about what the migrant has done at the home of origin.
2. To determine the factors that influence flow of information (both general and dedicated). The main focus here will be to find whether or not migrant performance necessarily mean access to important information about socioeconomic conditions of the migrant in the destination country. It has been held by the new economics of labour migration network theory that kinship ties facilitate flow of information since kin, especially the close ones, are the main recipients of remittances. The assumption here is that the flow of remittances comes with the flow of information as migrant would have to communicate with those to whom the remittances are sent. It is the objective of this study to test this assumption and ascertain the main determinants of information flow, especially private information flow.

3. To determine the main factors that people left behind consider when forming their remittance expectations. The focus here will be to see the relative importance of kinship ties, observed performance of migrant at the place of origin and information flow in the formation subjective remittance expectations.
4. The final specific objective is to determine the implications of subjective remittance expectations on decision to perpetuate migration in the household.

1.3 Research questions

Operational research questions include the following:

1. Do kinship ties influence migrant performance at home of origin the same way it does with receipt of remittances? In other words do closer relations have greater influence on what migrants are able to achieve at the home of origin than the distant relations?

2. Do migrant performance at home and kinship ties have strong correlation with flow of dedicated private information (information from the migrant) to the relations left behind at home of origin? That is does receipt of remittances necessarily mean receipt of information as the new economics of labour migration would want us to believe? How much can those left behind know about the socioeconomic conditions of the migrant through the latter's performance at home? Would the effects of kinship ties and migrant performance be different on flow of public information (Information people get around through interaction with neighbours and friends)?

3. What are the effects of migrant performance and the two sources of information flows on formation of subjective remittance expectations? Would ability or inability to access private information, for example, "push" those left behind to rely on alternative form of information when forming their subjective remittance expectations? In other words, what are the relative importance of migrant performance, private information, public information and kinship ties on levels of subjective remittance expectations of those left behind at home of origin? Do these factors have the same levels of influence on formation of subjective remittance expectations on condition of high level of private information flow between migrants and family relations left behind? And finally are remittance expectations informed by adequate information flows between migrants and those left behind?

4. How do subjective remittance expectations influence household decision to perpetuate migration? For example do formed subjective expectations influence decision to perpetuate migration in the same way under the conditions of high private information flow and public information flow?

These questions, though not exhaustive, would guide study to find insights into understanding how members of the migrant family left behind form their remittance expectations and the effect these expectations can have on their future migration intentions. The significance of these insights are summarised in the next section.

1.4 Significance/Justification of the study

Many theories have been propounded in the context of some empirical work to explain why people migrate to other countries even when there are obvious dangers associated with the movement. In Africa the most dominant of these are the economic theories such as new economics of migration and other micro economic theories. Together with some network models, these theories and empirical works based on them have projected economic reasons as the main factors behind voluntary international migration from and within the continent. Yet it is still difficult to deduce from all these studies the relative importance of these explanations. Van Dalen et al (2005) concur that the drive to emigrate out of Africa especially from Ghana and Senegal can only be summarised in two words: "great expectations". Expectations of employment, good earnings among other reasons are the basis upon which people including families build their emigration intentions especially in times of uncertainties (O'Connell, 1997). It is the contribution of this study to explain the exogenous determinants of these expectations in order to deepen our understanding of emigration movements within and from this continent.

Expectations of future events such as remittance flows motivate present actions like migration and thereby influence observed social phenomenon. Thus knowing how remittance expectations are formed would help us to understand better why households would continue either to support migration of their members or not to do so. Knowing family's expectations is therefore critical to making accurate inferences regarding the determinants of individuals' migration behaviour (Delavande and Kohler, 2009). For example, some households may be receiving remittances from migrant relations abroad, but they dislike continuous participation in migration processes, while others may want to participate in migration even though they have not benefited from relations who are abroad to set as a signal for them. Observed choices of remittance flows alone without information

on subjective remittance expectations cannot help us to dissociate various competing explanations of these household migration behaviours. Hence we need to study formation of these expectations in order to fully understand household migration decision behaviour.

Many young men and women travel on land and over the sea under harsh conditions, using their life savings and support from relations at home in order to get to the "promised land." They do this not only because of their own expectations but also those of their kins and friends back home. Sometimes both academics and policy makers fail to understand why people would risk their lives under harsh conditions to migrate. This is because it is expected that people would learn from and behave accordingly to some of the observed outcomes, namely the stories or ordeals that other migrants go through before and upon reaching their destinations (Wainwright, 2006). But since individual and family decisions are driven by expectations, the formation of which may trivialise these stringent requirements, there is likely to be a gap between policies and expectations. Any gap found between realized outcomes for immigrants and expected outcomes for comparable would-be emigrants or households members left behind suggests that inference based on realized outcomes alone may be misleading (McKenzie et al, 2007). Given that individuals and families hold private and public information that determine their levels of expectations about future probabilities of migration, studying subjective remittance expectations of those left behind may provide additional information for policy makers and academics in our attempt to understand why households and individuals embark on migration even in dangerous circumstances. This study contributes to increasing need to study subjective expectations and incorporate them in decision-making models so as to get full understanding of why individuals and households would continue to support others to embark on migration. Investigating how remittance expectations are formed and how they influence further migration decisions would help us to come up with well informed measures to address this issue in developing countries.

Existing theories of migration have not been able to explain why some initial migration moves do not lead to perpetuation of further movements. According to De Haas (2010), two main reasons could account for this: firstly empirical work samples only existing migration networks and leave out the failed ones. In so doing we are not able to explain what happen to the failed networks. Secondly, according to De Haas, there is an absence of clear conceptual framework to guide research into why some initial migration processes fail to become full-blown perpetuation especially at the community level. He attributes the failure

to account for this to too much focus on existing networks. Migration will dry-up at the household level as only the privileged households, who can afford the cost, would migrate. Hence he advises that studies should incorporate failed samples in the whole community for full understanding of why some migrations fail to generate full-blown network or perpetuation. But I want to add that even if samples include failed network, reliance on observed choices would not give adequate explanation about why some migration networks fail. And even though doing this at the community level, as conceptualised by Epstein (2009) and De Haas (2010), may provide some insights, I think it is at the household level that most of these movements or non-movements take place as most often the individual potential migrant needs support from the rest of the family. The use of subjective remittance expectations of the family members left behind could help us to explain why some families would not want to support other family members to migrate. This is because if the family feels the need to improve its livelihood conditions, it would express this through the expected items the potential migrant must supply while in the destination country. So this study would also serve as an attempt to provide a conceptual link between initiation and perpetuation of migration, especially at the household level.

1.5 Background and Scope of the Study

Migration and remittance flows as family strategy of meeting economic challenges do not just occur. There must be something, either in the culture or traditions of the people that makes people believe that their expectations of remittance flows would be met by their migrant relatives. Understanding family dynamics in Ghana and perhaps many other African countries is important for us to know the basis of interpersonal relationship of which subjective remittance expectations form an important part. It is appropriate to give some background account about family, especially the Akan family in Ghana since this would help us to put the whole study in its proper context in terms of the population we are dealing with. This section presents basic characteristics of family migration, the culture of monetary transfers and receipts in Ghana to help throw lights on family expectations of remittance flows and how this affect migration decisions.

1.5.1 Traditional lineage and extended family system

The concept of the family in Ghana and many African societies varies from a spectrum of nuclear and to large extended members (Nunkunya, 2003). Traditionally many African

families consist of a big domestic cluster, sometimes consisting of one or more nuclear families, each of which may have a husband, wife and children, leading to big household sizes. In Ghana there are two broad lineage groups: patrilineal and matrilineal societies. Patrilineal societies trace descent through the paternal ancestry and inheritance succession pass through the paternal line, while matrilineal people trace descent from maternal ancestry and inheritance go through the maternal line. The sample for this study is from the Akans who practice the matrilineal linage system. Traditionally, a maternal family is large, usually made up of a woman's children, her maternal brothers and sisters, children of her maternal sisters, maternal grandmother, and maternal brothers and sisters of the grandmother (Mensah-Bonsu and Dowuna-Hammond, 1996). Residential arrangement among the Akans is, however, patrilocal, and since this is in contrast with the traditional matrilineal inheritance system children are not expected to stay in their father's house for ever. Traditional matrilineal system in a way alienates children from their father's relations and makes them turn to maternal uncles for support whenever there is a need. It is therefore not surprising to find uncles performing the functions of the father even though the latter may still be alive. And even though traditionally men or husbands are the major decision makers in the family, it is not uncommon to find reference being made to uncles and aunts in the extended family. Thus child rearing is a collective and social duty in which not only the biological and nuclear family is involved, but also the extended family and kin including social parents, older siblings and other relatives, especially from maternal lineage. Extended family systems and strong kin and lineage relations remain important in most parts of Ghanaian society being matrilineal or patrilineal as they provide a sense of belonging, solidarity, and protection as well as social control. In addition to protection and solidarity, the bond also involves expectations, obligations and responsibilities (Nukunya, 2003; Tiemoko 2004). Consequently socioeconomic changes in Ghanaian and many African societies cannot be discussed without reference to the extended family and its involvement in the decision-making process of individual family members (Brown, 1996; Fleischer, 2007).

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1.5.2 Changing structure and functions of the Ghanaian family

In recent decades, the Ghanaian family is said to have undergone some changes in its structure as well as functions (Caldwell, 1968; Nukunya, 2003). According to these scholars

the family is no longer closely knit together; there is a shift to more emphasis on individuals as opposed to family continuity; and the family is seeing more and more of relative exclusion of a range of kin influences from its everyday affairs, as the emphasis shifts in favour of conjugal relationship (Nukunya, 2003). With varying degrees of exposure to influential factors of change, - urbanisation, education, Christianity and migration -, the family as a social institution is liable to change. But by and large, it is economic factors that really bring changes in family composition. Just over half a century ago, a family was an economic production unit in Ghana and many other developing nations. This has changed in the last 60 years. Wage employment has made it possible for members of households to get dispersed across vast geographical space locally and internationally leading to reduction in economic production functions of the co-residential family. According to Nukunya (2003) the weakening of the traditional sanctions - resulting from exposure to these influential factors – has brought laxity in kinship behaviour which the traditional sanctions used to sustain. The head and elders of kinship systems no longer have control over the economic lives of the members; religious beliefs, which used to be integral part of traditional life, are no longer strong motivators of behaviour (*ibid*); and migration has worsened things as people are no longer in proximity of traditional grips. Elsewhere it has been argued that increased resources of the aged especially in the wake of social security/welfare schemes are the main cause of reduction in multigenerational co-residence and independence of the aged in the advanced countries (Costa ,1999; McGarry & Schoeni 2000). This may, however, be for very small educated elites in the Ghanaian society, since for the majority of the working population social security/welfare schemes are not enough.

Table 1.1 below, shows the basic demographic composition of the households in Ghana in two periods, about 15 years apart. The estimations are based on data from a nationally representative survey conducted by Ghana Statistical Service (GSS). These estimates are from the weighted sample with the country having 3320000 and 5538133 households respectively for the two surveys. The nuclear family, which is composed of father, mother and children (or adopted children) is the dominant household type in the country comprising almost 50% of the household types. When either of the spouses is not resident in the household, the nuclear family is incomplete. The nuclear households continue to be headed mostly by young people as a reflection of contemporary trends. Generally though one would

Table 1.1: Household structure in Ghana between 1991/92 and 2005/06

Household type	Percent		Mean HH size		Mean Age of HH head		Percent headed by Female	
	1991/92	2005/06	1991/92	2005/06	1991/92	2005/06	1991/92	2005/06
Solitary	16.7	22.0	1.0	1.0	43.1	42.6	30.9	33.4
Nuclear	48.9	47.3	4.5	4.3	41.5	43.2	28.5	22.2
Extended	26.0	20.9	5.3	5.1	48.0	50.5	47.5	45.5
Compound	4.2	2.9	9.2	9.2	52.1	50.4	1.0	0.7
Compound extended	2.8	2.7	9.4	9.2	52.6	52.3	5.6	4.2
Non-related	1.3	4.2	7.0	6.1	46.1	46.6	35.6	18.8
National	100	100.0	4.5	4.0	44.3	45.3	32.2	27.9

Source: Estimated from the Ghana Living Standard Survey of 1991/92 (GLSS 3) and 2005/2006 (GLSS 5),

agree with Awuni's (1988) observation that the extended family system (20.9%), a decrease of about 5% within 15 years is a testimony that it is gradually giving way to the a more nuclear and solitary living arrangement. In fact the solitary living arrangement recorded the biggest increase (5%) in the period. And the table shows that more and more young people prefer this living arrangement, while the extended[1] system has lost about 4% of its presence in the country within the same period. Nevertheless, putting all of them together the extended systems still form about one-third of all the types of household living arrangements in the country and they are mostly headed by older people with average age of about 50 years with a significant percentage (46%) of them being headed by females. Matrilineal societies, where children tend to lean toward the mother's lineage, have been found to have higher number of female-headed households than the patrilineal societies when other factors are controlled (Addai-Sundiata, 1996). A possible reason for this differential is that, as stated earlier, among the matrilineal societies the mother's brothers and sisters are quite influential in supporting her and her children. Thus the fear of inadequate economic resources that can keep many women in unions may not be a serious factor among women in the matrilineal societies. With all these changes, the functions of the family, especially in its extended sense, as a kinship network that provides security for those who do not have it could be in danger.

[1] Extended household = a household that comprises at least one of the parents of the spouses is plus or minus children and other relations

Compound household = a household with two or more married couples plus or minus children and other relations

Compound-extended household= household with two or more couples, plus at least one of the parents of the spouses and plus or minus children and other relations

Nonrelated household = household in which at least one of the members does not have any kinship relation with the household head

On the other hand, some other studies have found that the declining co-residence of multiple generations due to migration and contemporary economic arrangement has not hampered the family's ability to perform its traditional social support functions (Frankenberg et al, 2002; Kholi and Kunemund, 2003; Frankenberg & Kuhn, 2004). The declining multigenerational co-residence and the rise of social welfare schemes may perhaps have negative effects on intergenerational transfers in the advanced countries, but certainly not in the developing nations. In fact even in the advanced countries there is still large flow of resources from one generation to another within households (Kholi and Kunemund, 2003). So the most significant changes in Ghanaian and many African families today are more about its living arrangement rather than its functions. The same social changes that have brought some transformation in the family composition have also led to new ways through which families, no matter where they are, continue to care for one another. And the best platform for families to show this support is through migration of some of their members.

1.5.3 Migration in Ghana

About 1.5 million Ghanaians are said to be living in many countries across the world (Twum-Baah, 2005). After the expulsion from Nigeria in late 1970's and early 1980's, Ghanaians turned their attention to Europe, notably UK, Germany, Netherland, Italy, France and recently Spain, and America which hitherto had become destinations for the very rich, educated elites and those who had been offered scholarships (Bump, 2006; Mazzucato & Kabki, 2007). Ghana and Senegal now stand out as some of the few countries that have broken away from colonial migration patterns and from where a substantial increase and diversification in migration to southern Europe (and the USA) have taken roots (De Haas, 2007). It is estimated that between late 1960's and mid 1980's Ghana lost between one-half and two-thirds of its most experienced, top-level manpower to emigration (Rado 1986). It is this group that created the network which continue to fuel emigration from the country. Between 1995 and 2002, about 69% of doctors trained in the country and many health professionals left the country (ISSER, 2006). In recent years, however, a good number of the emigrants from the country are semi-skilled people. They often find themselves in lower-levels on the occupation ladder. By 1991, only 4.2% and 7.4% of Ghanaian immigrants in Canada, for example, were employed in managerial and professional levels respectively; and only 7.2% of them have university education with the rest having secondary or primary

education (Owusu, 1998). Over 41% of them were in processing and machining occupations (Statistics Canada, 1994 cited in Owusu, 2000). Most of the migrants in these low-paying jobs do not tell their kins about the jobs they do because even though those jobs may pay well by Ghanaian standard, they may have low prestige in Ghana, (Diko and Tipple, 1992; Peil, 1995; Owusu, 2000). This means those who tell may be a selection of professionals, academics and administrators.

1.5.3.1 Any Peculiar Factors responsible for long history of migration in Ghana?

A brief discussion of some historical and socioeconomic factors would help to put international migration in Ghana in context. At the time of independence Ghana generally had far better supply of bureaucrats and professionals than most African countries. Ghana was among few third world countries that promoted study abroad with the "Study Abroad Policy" giving opportunities for many families to take advantage of available scholarships in British and North American universities (Peil, 1995; Jeffrey, 2006). Even though economic meltdown in the late 1970's and 1980's, together with rising cost of living and scarcity of scholarships, led to decline of migration for educational purposes, families worked hard to continue to educate their offspring abroad, capitalising on the networks that had been created earlier.

Also, hardship at home and strong desire to have good standard of living offered incentives for some parents to find jobs abroad so as to have better education for their children (Peil, 1995). Several newly independent countries in the region capitalized on the country's woes and hired Ghanaian professionals to assist them in their development. Emigration of teachers, doctors, administrators, and lawyers to Uganda, Botswana, Nigeria, Zambia and Zimbabwe characterized these initial emigrant flows (Bump, 2006). Ghana lost almost all its professionals during this period (Jeffrey, 2006). In fact it is claimed that there were more Ghanaian doctors and nurses practising in Western Europe and America in early 1990's than in Ghana (*Ibid*). Furthermore agriculture has not been an adequate source of employment for the people in many agricultural areas such as Eastern and Bono Ahafo Regions where this study is based. Most of the farms are too small to provide any adequate sources of income. Meanwhile the youths see their counterparts returning from migration with enough capital that enable them to do large-scale farming or small but successful businesses. In spite

of these economic problems international migration in Ghana and perhaps elsewhere has never been for the poor households (Peil, 1995; van Dalen et al, 2005).

Another significant factor about migration in Ghana is family support migrants receive. According to Ghana Statistical Service, about 64% of migrants move for family considerations, while only 25% cites employment as the main reason for their movements (GLSS5 Report, 2008). However, it must be emphasised that even though family reasons may be cited as the initial push factor, newly arrived migrants are eventually assisted to find some job (Mazzucato et al, 2006). Even self-motivated individuals are often inspired and mostly financed by family members some of whom are also the main sources of information about the countries of destination (Kabki et al, 2004; De Haas, 2007). And in the destination countries, settled migrants usually facilitate the passage of other family members and friends through provision of information and access to housing (Mazzucato, 2005; Mazzucato et al, 2006).

Perhaps the most peculiar factor about migration in Ghana is the social associations at various destination countries. Ethnic associations and churches continue to offer significant help to new immigrants to America and Europe (Peil, 1995; Mazzucato, 2005; Mazzucato et al, 2006; Quartey 2006), thus enabling them to foster relationships that create avenues for more migration networks between Ghana and various destinations. In spite of these supports, wherever they travel to, most Ghanaians do not intend to stay permanently; they maintain contacts with relatives at home and save for their eventual return. Logan (cited in Peil 1995) finds that only about 4% of Ghanaian professionals in the USA acquire permanent residency or citizenship, even though they qualify to apply. And even among those who have permanent residency or citizenship in Canada, an overwhelming majority (81%) intend to return to Ghana (Owusu, 1998). So why is this the case if there are supports from families and social associations to make migrants find their feet in destination countries? The functions of the social association in the destination countries could give a reason for this trend. Apart from helping new immigrants to adjust to their new environment, Ghanaian ethnic and township associations as well as established branches of home churches try to bring migrants in touch with their social and cultural values through social activities such as child-naming ceremonies, funerals and christening. In these activities members are encouraged to exhibit their sense of Ghanaian culture through dresses and traditional dancing. Some even go to the extent of having traditional leaders who also have some link

with the proper ones at home of origin. With concern that their foreign-born children may have little or no appreciation of the Ghanaian cultural values, some informal traditional schools have been organised in Britain and North America, for example, to teach the youths some cultural values, the local language and traditional cuisine (Peil, 1995; Owusu, 2000). Through these social and cultural activities the immigrants are constantly reminded of their roots and the need to return to contribute something to the developments of their families left behind and communities. The granting of dual citizenship by the Ghanaian government, a brainchild of these associations, further enhances social, economic and cultural ties with homes of origin, especially for those who want to take up citizenship status in the host country.

But not all Ghanaian migrants have the strong desire to go back home to settle. Mazzucato (2005) notices that a good number of Ghanaian migrants in Netherland who enter the country at the ages of 20's and 30's take up two hard jobs as cleaners or machine workers and work for over 10 years before they legalise their status. After that, a sizeable number of them are too old and weak to go home or their children have got so accustomed to the Dutch culture that they decide to stay on as opposed to going back as they had intended. They just maintain their contact with those left at home and support them financially.

1.5.3.2 Inter- and intra-family transfers

Irrespective of the level of integration at the place of destination, Ghanaian migrants do not overlook the importance of transfers, including remittances in the interactions with family members left behind at the place of origin. The flows of remittances among Ghanaians are found to be similar to what has been found elsewhere in terms of its frequency, rationale and choice of beneficiaries. But what is different about transfer flows is that Ghanaians remit for a longer period of time (Bump, 2006). It is therefore not surprising to see the rising importance of remittances in the Ghanaian economy over the years. Remittances are estimated by the Central Bank of Ghana to be around US$1.2 billion in 2006 contributing about 14.4% of the country's gross domestic product (GDP) from less than 1% in the 1970's. With lots of flows going through the informal channel, this figure could probably be half of the actual flows.

But the greatest impact of remittances and all transfers has been in the household. Ghanaian households whose head had migrated spend, on average, $78 per adult per annum more than households whose head had not migrated (Lichtfield and Waddington, 2004 cited in Shaw, 2007). Adams (2006) also finds that household receiving international remittances spend, on the average, 48.9% more than those with no remittances. And using the squared poverty gap measure he adds that international and internal remittances can reduce poverty in Ghana by 34.8%, and 4.1% respectively.

The content of the remittances are mostly money, goods, or direct purchase of domestic goods also form important part. Sabates-Wheeler and others (cited in Knight and Gunatilaka, 2009) cites a Ghanaian study showing that the majority of remittances were brought back by returnees in the form of goods. Even though the distinction between imported and goods brought home by migrants is not clear, Anaarfi et al (2003) also observed that 95% of the remittances are made up of goods, with vehicles, equipments and machinery being prominent. In fact others even claim that the housing industry in Ghana depends almost entirely on remittances (Kabki et al, 2004; Shaw, 2007). One of the things Ghanaians, especially the Akans, use for measuring wealth is landed property of which home ownership is key (Owusu, 2000). Building a house at home confers status for both the migrant and his or her family; it is a sign of the migrant's attachment to home family as well as success in going abroad. House ownership allows obligations of hospitality to kin to be fulfilled (Diko and Tipple, 1992). The wish to own a house is deeply ingrained in the Ghanaian psyche. It is therefore not surprising that Mazzucato and Kabki (2007) find that housing, business and money for general living expenses form over 70% of remittances. The houses are usually built in vertical stages: foundation, walls, roofing, and finishing and furnishing spending approximately £2000-3000 each year on the project (Diko & Tipple; Tipple, 1992; Peil, 1995). Thus a migrant does not have to accumulate lots of money before starting the project. Migrants who fail to remit or do anything at home are referred to as "Burger useless[2]" (Kabki et al, 2004).

Apart from building houses, establishing business while away or on return is another important thing to which remittances are put. Over 30% of the Ghanaian immigrants in

[2] "Burger" is a generic term referring to those who have been abroad. It is said to have originated from Hamburger, the Germany city, where most of the pioneer migrants from Ghana, especially those from the Ashante Region, settled.

Canada are found to have invested in the home economy in areas such as transportation, housing and small business (Owusu, 2000). Small businesses usually include restaurants, tailoring shops, communication centres, and agricultural businesses for cash crops such as cocoa in Ashanti region. And in recent years there have been a growing number of migrant-financed commercial vehicles on the roads (Kabki, 2004). These businesses are usually managed by family members at home. According to Ghana TransNet research programme cited by Mazzucato (2005) about 33% of remittances are used for business, while over 55 percent of those surveyed in the study by Sussex Centre for Migration Research were self-employed on return, and the vast majority of these individuals employ other Ghanaians in their business (Bump, 2006).

Who are the traditional senders and receivers of income transfers? Table 1.2 presents characteristics of both internal and international income transfers by different types of household. The estimates are based on the latest round of the Ghana Living Standard Survey conducted by the GSS (GLSS 5). Statistically, while there are significant differences in the mean amount sent by households the receipts show no significant differences.

Table 1.2 Annual income transfers by type of household

Type of household	Mean Sent (Gh¢)	Mean received (Gh¢)	Percentage of total sent	Percentage of total received
Solitary	88	110	18.9	14.9
Complete nuclear	72	74	15.5	10.0
Extended	80	150	17.5	20.3
Compound	46	205	9.9	27.7
Compound extended	63	44	13.5	5.9
Non-related	116	157	24.9	21.2
National	78	105	100	100

Computed from GLSS 5; GH¢0.92 = US$1:00 in June 2006.

On average, all household types receive more than they send, but the difference is much more pronounced for the more traditional types of households – extended, compound, compound, extended and non-related. This could probably be due to the fact that these households are generally headed by older people, especially older women (Refer to Table 1.1), and have bigger household size. They are also found to be generally poorer than the contemporary households (GLSS Report, 2008). The largely non-significance differences in receipts across household types emphasizes the fact that transfers are sent to any type of household, be it traditional or not. But in terms of wealth, it has been found that households

receiving most of the international remittances are the richest (Adams, 2006; Adams et al, 2008); obviously it is the rich who usually participate in international migration.

The type of household is not as important a factor as the relationship between senders and receivers of income transfers. In a study conducted in Netherland, Mazzucato, finds that Ghanaian migrants sometimes sojourn with different types of relatives at two or more places in Ghana before they finally reach their destination in Netherland. He finds that over 70% of remittances for health and funeral purposes are sent to maternal relations with the rest going to non-kin (Mazzucato, 2009). Relational closeness is an important determinant of remittance flows. Close relations (parents or spouse) often get the bulk of the remittances.

In Table 1.3 annual transfer receipts and transfers made by household and non-household members are shown. On average, and as expected close relations – parent, spouses and children – who are not members of the household, make more transfers than others. And as observed in other studies, even though average transfers made by females are lower than

Table 1.3 Recipients of annual income transfers

Relationship to household head	Sent by non-household members*		Received by household members		Received by non-household members	
	Mean(Gh¢)	Percent	Male (%)	Female (%)	Male(%)	Female (%)
Parent	113	28.3	4.3	10.5	17.8	30.5
Spouse	324	11.8	9.1	1.4	0.7	5.6
Child	111	28.1	32.7	39.0	35.6	20.8
Brother/sister	69	11.4	22.0	20.5	18.7	13.7
Other relative	64	16.0	19.2	20.2	21.6	24.4
Non-relative	78	4.4	12.8	8.3	5.7	4.8
National	126	100	100	100	100	100

Source: GLSS 5 Report, Ghana Statistical Service, 2008; GH¢0.92 = US$1:00 in June 2006; * Own estimation from GLSS5 data

those of males, the former provide about two-thirds of the annual total transfers (see Caldwell, 1961; Adams, 2008). A high proportion of transfers received by households go to children, especially the female ones (39%) compared to male children (32.7%). Brothers and sisters are the second highest receivers. Transfers to non-household members mostly go to male children (35.6%) and parents, especially female parents (30.5%).

1.5.4 Conclusions and implications of Ghanaian family and migration systems

The family as a social unit in the Ghanaian society is becoming more and more of a nuclear type: father, mother and children. This suggests a shift in family obligation towards the nuclear family and less towards the extended family. However, evidence from GLSS data and studies on Ghanaian migrants show that nuclearisation of the family living arrangement has not eroded the sense of obligation towards extended kin as it has been alluded by Caldwell (1966). Interfamily monetary transfer is still a deeply ingrained support system in the Ghanaian culture. Irrespective of one's location or wealth status there is a lot of transfers made across families and relations. Members do not have to be in the same household; they can be scattered but they are still bound together by the sense of obligation towards each other's socio-economic welfare. Thus even though, and expectedly, close relations make and receive most of the transfers everyone in the large kinship extended family is expected to participate in this support system no matter how small one's contribution is (Nukunya, 2003).

Even if they are far away from home, migrant members are still part of big families and are expected to meet their family obligations of supporting the less fortunate ones. And this obligation is irrespective of whether or not the migrant was supported by the family to participate in migration. Most family members at place of origin may not know much about the migrants' socioeconomic conditions, for lots of migrants do not tell how they earn their income. But the fact that the migrant is a relative is enough for them to put lots of pressure on him or her to fulfil their expectations (Arhinful, 2001). The first emigrant is assisted by the household with the expectation that he or she will help alleviate financial problems of the family and finance subsequent emigrant from the family (Kabki et al, 2004). These expectations may have little or no regards to place of destination given the fact that Ghanaians are found to be remitting from many countries. Also due to the fact that past migrants have been able to establish houses and businesses with their not-so-high education and apparently low-status jobs, either while still in migration or on return, a Ghanaian migrant may have no excuse to fail to meet expectations at home. Whoever fails cannot escape the ignominious label of "Burger Useless."

1.6 Definition of concepts

There are few key concepts that need to be clarified for us to understand the contexts in which they are used in this thesis. I present these definitions in Table 1.4 below.

Table 1.4: Definition of concepts

Concept	Definition
Compound household	Household with two or more married couples plus or minus children and other relations
Compound-extended household	Household with two or more couples, plus at least one of the parents of the spouses and plus or minus children and other relations
Dedicated /private information	Information Migrants share with those left behind
Extended household	Household that comprises at least one of the parents of the spouses is plus o minus children and other relations
General/public information	Information about the migrant that those left behind get from other sources in the community, eg. From friends.
Household human capital	Average years of education of all household members of age 15 and over.
Household wealth	This is an index constructed from household assets
Migrant performance	Achievement of migrant adjusted by the number of years the migrant has been away from home of origin. The items included in this estimation are money for living expenses, housing and business investment.
Nonrelated household	Household in which at least one of the members does not have any kinship relation with the household head
Observed remittance flow	Absolute values of remittances migrants send home
Remittance expectations	An index of items families left behind expect to get from their migrant relations abroad within certain period of time
The nuclear family	A family which is composed of father, mother and children (or adopted children)

1.7 Outline of the rest of the study

The study is organised in eight chapters. As we have just seen Chapter One focuses on the motivational background as well as the significance of the study. This included some discussion on socio-cultural and migration dynamics peculiar to Ghana. This sets the scene for us to appreciate the nuances that will underline the findings in the results chapters.

Chapter Two deals with theoretical and empirical literature on migration decision and possible impact of remittance expectations future household migration decisions. Syntheses of selected theories of migration and expectations, and how they interact are discussed in this chapter. In addition, the chapter includes a discussion of the literature and points out the limitations in understanding household migration and how these limitations inform the purpose of this study. The concluding part of this chapter focuses on description of processes and actors engaged in subjective remittance expectations and why it is important to study this behaviour in household migration decisions. In the discussion of actors and processes, I focus on the theoretical relationship between subjective remittance expectations and decision to perpetuate migration at household/family level. This is done with some discussions on how the three main factors – information flow, performance of migrant and kinship ties – through their effects on formation of remittance expectations can have differential effects on intention to support other members to migrate. I end the chapter with the three main hypotheses to be tested by the study.

With the understanding of what the study is all about and socio-cultural settings we now move to the strategy used to gather information and analyze it. Two chapters are devoted to the methodology section of the study. In Chapter Three a detailed description is given from sampling strategy to the development of questionnaire and the implementation of the fieldwork, including the challenges that were encountered in these processes. Because the study involves primary data, a lot of concepts that are crucial in the study had to be operationalised. Chapter Four is devoted to operationalising concepts such as information flow, expectations migrant performance etc. I end Chapter Four with detailed discussions on the type of analytical techniques used and their limitations.

In Chapter Five I present the descriptive statistics of the population and key variables being considered in the study. This will give a preliminary direction or pointers into rudimentary

understanding of the population and key variables. Chapter Six begins the two main results chapters with specific attention to one of the major determinants of subjective expectations: past events. In this chapter I explain the determinants of observed flow of remittances measured as past performance of migrants at home of origin. The analysis pays special attention to the effect of type of kinship ties. The chapter builds on the theory of new economics of labour migration with the consideration that migration is a family strategy to improve on their livelihood conditions. Hence depending on the type of relationship, people left at home of origin should have varying effect on the observed flow of remittances or past performance of migrants. As remittance receipt may not be a random phenomenon among migrant household population, the issue of self selection is considered and corrected for possible selectivity.

Information flow is the other important factor, investigation of which opens the windows for us to understand formation of remittance expectations of any kind. Two types of information flows are distinguished: information from migrants (dedicated private information) and information about migrants from the general public in the community (general public information). A major assumption is that there is exchange of information between migrants and their relations left behind through observed flow of remittances. This assumption relies on the strength of kinship ties and shared responsibility towards members of the kinship network embedded in NELM and network theories of migration. Since information flow is crucial in the formation of expectation of any kind, I test this assumption in the second part of Chpater Six. Two main variables are of importance here: relationship and observed flow of remittances. That is, the chapter tries to see if, for example, information from migrants to relations left behind flows with observed flow of remittances. If this is the case then perhaps NELM is right to assume information flow between the migrant and those left behind. And hence perhaps there will not be any need for studying subjective remittance expectations as a major part of migration-support decisions. This chapter will help us to make that judgement.

Having investigated the major factors of subjective remittance expectations –past performance and information flow in Chapters Six – we move to Chapter Seven to estimate effects various exogenous factors have on the formation of subjective remittance expectations. The main variables of focus are kinship ties, performance of migrant (measured by observed flow of remittances adjusted to years of migration) and flow of

information. The chapter further discusses the differential effects of these variables under through interaction with information flow from the migrants. Again since there may be a possible selection as regards migrant families that have remittance expectations, the Heckman model is applied to correct for the effects of biases. Using generalised ordered *logit*, I estimate the effect subjective remittance expectations are likely to have on the intensity to perpetuate migration in the second part of Chapter Seven. I try to see how the effect of remittance expectations, kinship ties and past performance differ when interacted with private information from migrants.

Chapter Eight concludes the whole study by presenting discussions of major findings. This will not just be a summary, but a summary with new insights and possible implications for programs and policies. The chapter also discusses areas for future research.

CHAPTER TWO

THEORETICAL AND EMPIRICAL LITERATURE

2.1 Introduction

While some work supports the simple view of remittance expectations based on reference to past events such as performance of migrants in the community, a growing theoretical and empirical literature suggests that formation of expectations, and remittance expectations in particular, could be much more complex than this. This chapter presents a review of some of these relevant works, and argues that subjective remittance expectations have only been equated to revealed or objective flow of remittances. In addition, the review of the literature, as we shall see shortly, demonstrates that due to their failure to investigate what goes into formation of subjective remittance expectations, existing theories and empirical works have not been able to fully explain why some households perpetuate migration while others do not.

2.2 Expectations as part of family migration decision

Expectations as part of international migration decision model was first introduced, at least theoretically, by Sjaastad (1962) who initiated the micro theory of neoclassical economics of migration based on individual's cost-and-benefits estimations. Even though this was later modified by Todaro (1976; 1989), the central idea of migration being an individual's cost-benefit calculation of *expected* gains verses *expected* loss has always remained intact. Thus a potential migrant has pre-migration expectations of some gains that influence his/her decision to move. After cost and benefits analysis the individual moves to a destination where the expected utility or returns is greatest (Todaro, 1989). These pre-migration expectations are said to be a function of earnings in the destination country, discounted by certain probabilities such as deportation and employment (Massey et al, 1993). Following this model, Yoesting and Bohlen (1968) found that in addition to these probabilities, some social and demographic characteristics act as exogenous factors influencing individual's pre-migration expectations. They found that gender, occupational, attainments and educational aspirations are among the major factors that are significant in high levels of individual pre-migration expectations. Potential migrants with higher education, employment experience

and males were found to have positive relationship with high levels of pre-migration expectations. In more recent studies, it has been established that socioeconomic wellbeing (Bjarnason and Thorlindsson, 2006) and times of economic shock (Konseiga, 2005; Fafchamps and Gubert, 2007) raise levels of expectations of potential migrants. Others have also found pre-migration expectations as the major driving force for realisation of high income among potential migrants (Gao and Smith, 2010). Attempts by Banerjee (1984) and Vishwanath (1991) with different models also confirmed the positive effects of these socio-demographic determinants. They however added that the expected benefits of potential migrants are not always high, but sometimes less than those that can be obtained in the destination areas. Interestingly though, these expected benefits – whether higher or lower than what can actually be realised – still propel migration movements (Banerjee, 1984; Vishwanath, 1990; De Jong, 2000; McKenzie, 2007). Even though neoclassical microeconomic theory and its empirical works such as these ones clearly incorporate expectations into individual migration decisions, and give a way of quantifying expected returns to migration movements, they do not extend this expectation to remittances. And this is because, as noted by many others, this theory only views migration as an individual act in which case remittances have very limited role, if any, in migration decisions. Or it views expectations as coming from only one side: the potential migrant.

2.2.1 Migration and different types of expectations

While expectations in their general form can be defined as the state of looking forward (from Latin, *exspectatio*, looking, waiting for), they come up in different forms in various disciplines, and fortunately or unfortunately remittance expectations would usually –not always – cut across all these disciplines. From social psychological perspectives, expectations are always in relative states, that is, an expectation for self relative to other, and may, for simplicity, be viewed as positive, negative, or undifferentiated. They are relative conceptions of task ability, which each member of a group or family comes to hold for each other (Sobieszek, 1972). These relative states are conceptualised in two modes: expectations one holds for oneself (first order expectations) and those one believes others hold for him or her (second order expectations) (see Troyer et al, 2001; Webster & Whitmeyer, 2002; Webster et al, 2004). In both cases, expectations are fundamental sources of actions for the individual in any social settings including the family, and are determinants as well as allocative principles of how people should undertake their social and economic actions both

now and in the future (Young, 2007). This distinction is important because it provides fundamental theoretical explanations of social interactions where expectations are paramount in shaping individual behaviour. In migration, for example, this distinction is very useful in helping us to know that, in contrast to neoclassical economic view of migration, expectations in migration may go beyond the individual migrant. This distinction is also important for us to know the kind of expectations families could have about their migrant relations residing abroad. Apart from the migrant's own expectations of what he/she hopes to achieve, which could be referred to as first-order expectations, there are also second-order expectations from those left at home of origin that the migrant would contribute something to meet the cost of household living and other livelihood expenses. Thus migrants would have to act in accordance to both first and second order expectations from relations. But this could potentially prove to be an unstable dichotomous relationship between expectations of the migrant and those of relations left behind. In two experimental studies conducted by Troyer and Younts, it was established that the second-order expectations are quite significant, most of the times more powerful than the first-order expectations when the two orders of expectations are in conflicts of influencing actions, and particularly when there is no way to resolve the conflict (Troyer & Younts, 1997; Troyer et al, 2001). Thus according to this thinking, expectations (remittance expectations) of family members left behind would take a very important role in various migration decisions including remittance flow and decision to move even if these decisions may not sit well with the migrant member. Unfortunately this cannot be tested in the study given that I do not have information that measures individual migrant's own expectations. And even though having information about migrant's own expectations could help this investigation, the thesis is based on the assumption that people left behind hardly take into consideration expectations of the migrant when forming their own expectations.

The importance of expectations of other members of the family is given more emphasis in the new economics of labour migration (NELM) theory which incorporates expectations of those left behind in migration decision processes, unlike neoclassical economics of migration. The theory sees expected utility from migration as not only a function of individual potential migrant's utility, but a whole household or family (Massey et al, 1993). In this theory migration becomes a tool that families use to manage the various risks that result from underdeveloped markets. By having a family member to work away from home, a household makes an investment that is expected to pay off in the form of migrant's

remittances. In the case of extended families the same principle holds: the guiding model for decision to migrate is expected utility maximisation of all families in the extended network. If the expected utility of migration of one family from the extended kinship cannot cancel out the disutility of other households, migration cannot take place in the kinship network (Kubursi, 2006). These are theoretically logical and nice, but whether or not they work is still not clear. On one hand the theory suggests that family members left behind would have remittance expectations in times of failures in the market or businesses such as agriculture. On the other, the theory suggests that the sense of relative deprivation of some income due to improvement in the incomes of other households in the community of origin could be the basis for which the household engages in migration by sending a member (Stark and Taylor, 1989; Stark, 1991; Taylor 2006). In both cases households would expect the migrant member to help them to improve their standard of living relative to other households whenever they feel deprived either due to improvement in livelihood conditions of other households or some economic shocks. But what informs the level of these expected returns (remittances) subjectively has not been fully investigated. For example, are the levels of these subjective expectations gauged by the amount of economic shock or the extent to which the family feels deprived, or both?

2.2.2 Theories of remittance and their implications for remittance expectations

Insights from the theoretical explanations of why migrants remit do give some clue in determining expectations levels of those left behind amidst some limitations. Lucas and Stark (1985) are among the pioneers in developing theoretical model to explain remittance behaviour. They came up with three main explanations: one, migrants remit based on pure altruistic motive. That is the migrant just enjoys remitting to friends and relatives. In this case the utility of remitting for the sender is positively correlated with the receiver's. That is anytime those in need ask the migrant sends irrespective of who the recipient is – close or distant relation; poor or rich, etc. If this theory holds then the observed or experience of remittance flows for those left behind would have little or no variation from the sender's (migrant's) point of view. Variations in observed remittance flows could only be explained by the demanding behaviour of the recipients – those left behind. For example given the economic background of the receivers, pure altruistic motives would predict that the poor would receive more from the migrants than the rich, since they have much to do to improve

their relative deprivation. The implication of this is that while some remittance expectations may be met by migrant members, others may not be fulfilled, because migrants are not bound to meet any expectations. They would respond to expectations according to their wishes. Nevertheless, it would still be necessary for those left behind to form remittance expectations because they could still benefit from the altruistic behaviour of the migrant members. The problem is that, under this condition, it is difficult to tell whether or not the levels of observed flows are reflection of expected ones.

If remittance flows are purely explained by migrant's own self-interest, then those left behind may not form any remittance expectations, because it would have no effect on flow of remittances. According to the theory, migrants may have self-interest to send remittance to secure inheritance, or investment in housing or business, etc (Stark and Lucas, 1988). In this case, the socioeconomic conditions of those left behind and their relationship with the migrant would not matter; variations in flows of remittances would solely be determined by the migrant's desires, irrespective of formed expectations of those left behind. Consequently expected flow of remittances has no place in the observed flow. This therefore rules out any impact of subjective expectations of remittance flow as well as the very foundation of migration as a household livelihood strategy.

In the third model, however, the migrant's liberty to remit is limited because of the contractual agreement between him/her and the family members or relatives left at home. This could take the form of repayment for earlier investment in, for example, education, travel cost, etc (*ibid*). Variations in levels of observed remittance flow as well as remittance expectations would depend mostly on the bargaining power of the parties involved in the contractual agreement (i.e. between the migrant and those left behind). Thus unlike the pure altruistic motive which could favour the poor, the bargaining or tempered altruistic model would rather predict otherwise as the richer families would try to wield their power over the migrant to expect more and more from him/her as they feel more and more deprived with reference to other households in the community of origin. And unlike the first two theories, the tempered altruism, at least, offers some possible way by which people left behind could come up with various levels of subjective remittance expectations. However, it takes us back to the original postulate of the NELM theory that the remittance expectations are most

likely to be informed by deprivation either due to economic shock or improvement in the livelihood conditions of other households in the community.

When the need for improvements of livelihood conditions are due to relative performance of migrants in other families in the community of origin, then according to NELM theory and its theoretical explanation of remittance flow (as seen in tempered motive) this relative performance could also be the reference point by which other migrant households would gauge their expected returns from migration. Remittance expectations then become more adaptive to what others have done or are doing in the community of origin. Hence, remittance expectations, like all adaptive expectations, become modelled as a distributed lag of past values of other performances (Palley, 1993). For example expectations of value of future flow of remittance will be influenced or determined by past trends of remittance flows. Though this is biased towards the influence of few variables of the past (Muth, 1961; Curtin, 2003), it is epistemologically relevant, for we all learn through our past experiences, which invariably suggests that the world is relatively stable in many socioeconomic phenomena including remittance expectations. When only the past performance or historical data inform expectations, the confidence with which people hold their expectations are also the very past events of the variable in question (i.e remittance flow). In this case, significant events in the past about flow of remittances could be turning point exerting excessive influence on the formation of remittance expectation. This is because those turning points could be viewed as containing information about the general course of events of the variable (Schmalensee, 1976). Perhaps this could explain why relations left behind do not care to hear any other stories, because the past events of observed remittance flows do have excessive influence on remittance expectations. From the foregoing discussion it is clear both empirical and theoretical literature only, at best, point to past flows in the community as major influencing factor that could possibly explain levels of remittance expectations.

2.2.3 Information flow and formation of remittance expectations

Formation of expectations of any kind cannot rely only on past events, because current information flow also shapes our expectations. In an attempt to improve upon adaptive approach to formation of expectations, Muth came up with the rational expectations theory with the emphasis on expectations based on rational outlook of economic agents, available

information and past experiences. The theory holds that the current expectations in the economy are similar, if not equivalent to what the future state of the economy will be. As Muth himself stated "I would like to suggest that expectations, since they are informed predictions of future events, are essentially the same as the predictions of the relevant economic theory" (Muth, 1961: 316). For example, people's expectations of an increase in the value of equities in the stock market will lead to more purchase, and this in turn, will lead to increase in the prices of equities. In another example, production of food crops in the agricultural market will depend on how much farmers expect to produce. Thus rational expectations require that people take, into account, their knowledge of all relevant economic information, especially the macroeconomic ones, so that their actions are based on an expectation that is, in turn, realised as a result of their actions. Following this logic the amount of remittance flow in any community or economy is based on the level of remittance expectations of individual families which are, in turn, as result of remittance flow behaviour in the community. Rational expectations would imply that the same factors that predict actual flow of remittances also predict individual remittance expectations (conditional on these factors being in the information set of the individual).

Unfortunately, rational expectations remove the subjective aspect of expectations in decisions. That is individuals do not hold private information different from the objective ones in the formation of their levels of expectations. This approach therefore suggests that individual expectations are accurate; hence there is no need to incorporate them in any model. That is the subjective-probability distribution of economic actors is identical with the true objective probability distribution of the economic system (Herr, 2009). When subjective expectations are assumed in this way we imply that observed choices are consistent with various combinations of expected preferences (Manski, 1993). On this basis, it can firstly be assumed that subjective probabilities of remittance flows of all household members left behind are identical with the observed probabilities of remittance flow. And this is exactly what has been the case with almost all the works on household migration. Remittance flows have been explained at best from publicly observable choices. When this happens we assume that what is sent is consistent with what the individual household members left behind expect. But it has been established that this assumption does not hold (Manski, 2004). We therefore need to relax this assumption and incorporate subjective

expectations in behavioural models such as remittance transfers among family members (Manski, 2004; Walker, 2006; Braykov, 2010).

A major criticism of rational expectations, however, is the assumption of access to information, be it private or public. The theory presumes people can have access to 'relevant' information as well as have the capability to adjust their expectations in ever-changing structures of an economy (Demery and Duck, 2007). Even if the information is available it may be too costly for people to get it (Demertzis, 2008). Migration theories such as NELM, network and cumulative causation, though they recognise the importance of information flow through interactions between migrant and those left behind, are also victims of this assumption. These migration theories hold that informal contract between the migrant and those left behind can be maintained, as it is assumed that this cooperation will enable the migrant to know the needs of those left behind, and also those left behind to know socioeconomic conditions of the migrant. As discussed earlier, it is believed that the strength of social norms and values in kinship networks is enough to ensure that people cooperate in information sharing (Massey et al, 1993). Social norms, as customary rules of behaviour coordinate our interactions with others, and hence once a particular way of doing things becomes established as a rule, it continues in force because people would prefer to conform to the rule given the expectation that others are going to conform (Young, 2007). The resultant collective social capital arising from interaction between the migrants and relatives left at home, and governed by trustworthiness, is therefore hypothesised to increase efficiency in the cooperation between the parties with resultant reduction in transaction cost. By lowering transaction cost, networks among the members in the entire big family also facilitate communication of information about others, and hence detection of non-compliance (Fleischer, 2007; Brunie, 2009).

Interfamily transfers of any nature needs monitoring; and information flow is crucial in this regard. Numerous empirical studies show that geographical proximity is important for households and migrants, for example, to monitor and enforce these implicit contracts (Stiglitz, 1991; Fafchamps and Gubert, 2007); and contribution from information economics attests that information flow cannot be assumed to be available to everyone (Ryan et al, 2002). Nevertheless, believers of social capital from kinship network expect smooth interactions between the migrant and those left behind to enable smooth flow of information needed for formation of their remittance expectation levels. And this is achieved especially

if the family has a powerful head who can enforce the contract (Hagen-Zanker, 2008). According to Mazzucato (2009), in absence of geographical proximity "cultural proximity" ensures that all members in the kinship networks abide by the informal insurance contract. In absence of geographical proximity, Ghanaian migrants are found using trusted network members such as friends, because according to him (Mazzacuto), migrants can deal with a friend who misbehaves more than a relative who misbehaves. Those who are well established travel back and forth between Ghana and Netherland, for example, to monitor their transfers. Another way Mazzucato (2009) finds is that through the gatherings of various social events like church service, funerals, marriage etc, migrants from same vicinity share information on what is happening back home, including progress of their projects (*Ibid*). All this, according to him, indicates that in absence of geographical proximity, social and cultural proximity help the migrants to monitor and enforce the informal insurance between them and their relatives and friends. But how about those left behind? How do they monitor the migrant member to make sure that he or she also complies with the informal contract? The best they can do is just to rely on phone calls and assume that whatever the migrant tells them about his/her socioeconomic conditions is correct.

Even within the same family in the same location, it is reckoned that members can only have partial information (Chen, 2006). Also feedbacks from returning migrants, especially the most recent ones, have been found to be partial and have negative impact on potential migrants' expectations of job opportunities and levels of income (McKenzie et al, 2007). Three major reasons have been identified in the literature to explain why informal contracts with the assumption of full information flow may not hold within the family. Firstly, because participants are not legally bound to fulfil their obligations in the contract (i.e. to share information), they are at the liberty to compare the short and long term utility of conformity and nonconformity (Morduch and Sharma, 2002*).* If, for example, current non-cooperative behaviour has much bigger long-run utility or benefit for the migrant, he or she may choose not to cooperate, and vice versa if the utility is much better in the short-run. And as long been established in consumer economics (Nelson, 1970), monopolistic (migrant's in this case) power over a good (remittance expectations) is greater if consumers (family members at home of origin) know only a few things about the nature of the good (remittances). In other words individuals may choose to increase their bargaining power rather than participate in the shared interests (Doss, 2001). It is therefore not surprising that many migrants do not tell their relatives at home how they make their money or how they do

socially and economically (Diko and Tipple, 1992; Peil, 1995; Owusu, 2000; McKenzie et al, 2007). Keeping all or part of the information enhances their monopoly of the decision to send or not and how much to send.

Secondly differences in resources and trajectories of wealth and social class between the migrant and those left behind can also result in non-cooperative behaviour in information sharing. As social and economic situations of families change, so do their social class relationships. When families become wealthy, they tend to associate more with the wealthier people either in or outside the kinship network, leaving the relatively poor ones out (Doss, 2001; Morduch and Sharma, 2002). After some years in the destination country, migrants tend to become more integrated in the culture of the destination country (Mazzucato, 2005*;* 2009). The effect of this integration may lead to non-cooperative behaviour with those at home as they become more and more distant not only geographically but also culturally. Of course, transnational theorists would dispel this assertion with empirical evidence that migrants do maintain strong transnational ties over sustained periods and that these ties can even become trans-generational (O'Neil, 2003); and as observed in Ghana, migrants tend to remit for much longer duration than average (Bump, 2006). More research, however, is needed to augment the transnational claim, because most of the studies emanating from the transnational school are from cross sectional data, which hardly factor in effects of time in the analyses. Flow of remittances, for example, has been found in many studies to be inverted u-shaped when years of migration are considered (*ibid*). And the explanation that is often given is that after some years, the migrant would have most of the close family members with him/her in the destination country. This is most likely to lower information sharing, because with close relations now residing with migrants, migrant would not feel any major need to share information with other relations who may be distant, especially if the latter did not play any major role in his/her original migration decision (Briant, 2005).

The third possible reason for non-cooperation in information sharing is the cost of obtaining information. Network and kinship systems of migration theory postulates that there is almost negligible cost involved in information about migration as trust of friendship and family relationship ensures the information is free and available. Perhaps this might be the case with those very close to the migrant, especially the ones through whose help the migrant was able to make the journey. In the extended kinship system, not all the members who expect something may have free access to information, especially about socioeconomic situation of

the migrant. This implies that obtaining information about socioeconomic conditions of the migrant could be difficult and costly for some people in the kinship network. In a study on imperfect monitoring due to distance between migrants and household members left behind, Chen (2006) found that there are bound to be information asymmetries. And when this happens, people are likely to resort to guess-work. According to Demertzis and Hallet (2008), guess-work is not only the most natural behaviour when an economic agent faces uncertainty due to inadequate information flow about various economic parameters, but also the optimal choice of action to take. Members of the kinship network who may find it difficult to access information from the migrant will resort to alternative sources of 'relevant' information that will help them to determine their levels of remittance expectations. These sources may be different not only in their origins but also their authenticity. Or they may just resort to guess-work. Another consequence of these information asymmetries could be inability of the agents to form well-informed remittance expectations (Knight and Gunatilakaw, 2010). Alternatively, as Van Dalen et al (2005) point out, in the absence of perfect information flow, past flows of remittances may be a major source of information that would "talk" to those who are left behind to either enhance or dampen the spirit of expectations of potential migrants. This then takes us back to earlier discussion that remittance expectations are being born out of adaptive behaviour much more than current flow of information. Van Dalen et al (2005) assertion also reemphasise the claim that remittance and information flow between the migrant and those left behind are synonymous.

2.2.4 Relational composition of remittance expectations

From the above discussion it is apparent that empirical works have only equated remittance expectations to observed remittance flow without taking into consideration the effect of information flows. That is people form expectations with reference to past events. But this is looking at expectations, mainly from economic considerations. Migration as a family strategy, and especially remittance expectations, may go beyond economic considerations. Empirical studies on migration and remittances have established the importance of kinship ties in remittance flows. It is therefore worthwhile to discuss how kinship network, especially from sociological and social psychology literature, may help us to have a better grasp of remittance expectations.

The family has always been the source of transmission of social values and norms. Families play important role in determining intergenerational support for one another. It is said to be stronger than filial norm found among siblings. De Vries et al (2009) find a strong transmission of values across generations as children whose parents have strong kinship norms also exhibit stronger kinship values. As it were, obedience is the channel through which this transmission operates. The basic explanation for this generational transmission of values and norms can perhaps be found in child development psychology. Authors from child development studies have argued that observational learning constitutes a powerful way in which behaviour and attitudes are transmitted from parents to children (Bandura, 1982; Amato, 1996). It results from the often unconscious imitation of behaviours and roles during the early phases of childhood (Tillmann, 2004). In a highly theoretical model, Bramoulle and Kranton (2007) show that efficient networks can always keep people together irrespective of the cost involved in the attempt to keep it. In these conditions expectations of various behaviours are products of collective social capital, born out of mutual trust, voluntary cooperation, norms of reciprocity and network (Brunie, 2009). It creates a sense of belongingness.

It is from this social psychological sense of belongingness that the NELM theory also draws its assumption of a cohesive traditional family, the members of which share common goals, and are likely to trust, and remain loyal to each other in sharing information (Sana, 2003). The value-expectancy framework championed by De Jong (2000), perhaps raises the strongest voice of this cohesiveness in family expectations from migration. According to this framework, migration intentions are based on an underlying desire to improve or maintain the individual's or family's quality of life. Migration decisions are seen as involving specific values and goals of the kinship network, and the expectation that migration will result in the attainment of these goals including information sharing between migrants and those left behind (*Ibid*). The strength of family ties between migrants and those left behind is an important part of the altruism model of remittance flows (Van Wey, 2004) since it dwells on emotional attachments to generate commitment to care for relatives and family members left behind. Obviously this goes beyond any economic rationality. Apart from being relational, this aspect of remittance expectations could also to be moral, given that it also depends on the moral obligation members have towards each other in the family.

But this strong sense of cohesiveness does not necessarily mean all members in the family or the kinship network have the same expectations of obligation towards one another. Expectations of kinship obligations have been found to differ according to the type of relationship: children, parents and the general family (De Vries et al, 2009). In fact it has even been argued that social norms do not represent objective social values but embodiment spill-over from individuals' conscious pursuit of their own interests (Crudeli, 2006). Even in nuclear families, empirical literature from the bargaining school has found that family decisions rest mainly on the person who wields the bargaining power in the household (Cigno, 1991; Laitner, 1997).

From the foregoing discussion it could be deduced that even though social norms and values keep members of kinship network together, expectations of obligations towards one another could differ. But how would they differ? In large stable or static networks peripherals are most likely to be cut off from the core as components cannot be maintained for a long time in a large network, suggesting that time variance can have a negative effect on the strength of the bond connecting kinship network. This echoes one of the reasons for information asymmetries discussed above: information may not be available to extended kin as the closer ones join the migrant abroad (Doss, 2001; Morduch and Sharma, 2002). So who among the kinship network would be considered as being in the peripheral? In Egypt and Morocco, for example, the likelihood of a household head receiving remittance is highest if the migrant is a spouse or brother (van Dalen et al, 2005). Thus if the observed flow of remittances is an indication of who is important in large extended kinship network one would perhaps agree with the argument by De Vries and Kranton that extended family members are more likely to be considered as peripherals. And if observed flows of remittances are a true reflection of expected flow then one would again concur that expectations from extended members of the family may not be as high as those from the closer ones.

But other empirical literature in migration has found that extended family members play very important roles not only in migration decision, but also receipts of remittances (Fleischer, 2007). In high emigration countries such as Mexico, expectations of support from extended family members have been found to be a major influence in the choice of destination state in USA. New migrants rely on support from their relatives and friends at the place of destination for accommodation and linkages with employment opportunities at least for some time till they find their own feet (Glick, 1999). While in India, remittances

play roles not only as the medium through which the kinship networks are kept but also as poverty reduction mechanism among all the families, including the extended ones, spread around in distant places of the network (De Haan, 1997). In Ghana over 70% of the shock remittance, which is made up of contributions for funeral and health care, goes to extended relatives (Mazzucato, 2009). All these findings show that extended members of the kinship network are very important and may perhaps not be at the periphery of migration processes including remittance expectations.

It could be that the observed differences in flow of remittances are not due to socioeconomic and demographic factors only but also due to differences in subjective remittance expectations. So far the assumption has been that the observed differences in remittance receipts by various relations left behind are true reflections of the expected receipts. Thus as discussed above, migration literature has also followed the same untenable assumption made by the rational expectation theories in economics that revealed data are consistent with individual subjective choices. As Walker (2006) rightly points out, this has been the case over many years.

2.3 Expectations and perpetuation of migration

2.3.1 Insights from studies using observed data

Because they are always assumed, expectations have rarely been used as an exogenous factor in explaining both initiation and perpetuation of migration, especially in studies that use observed data. Most studies on migration decisions from revealed data show that demographic and socioeconomic factors that initiate migration also have some influence on perpetuation (See Hatton and Williamson, 2004 for review). From these studies demographic characteristics such as gender, age and marital status, albeit some conflicting results, have been identified as important factors influencing family migration decisions. In some male dominated societies, where social norms expect women to be in marital unions some family pressure has prevented single women migration, reserving migration mostly for men (Thadani & Todaro, 1984; Garip, 2006). But in the Philippines, division of labour has led to rural–urban migration of women especially to Manila as household's strategy to get

short term remittances (Lauby & Stark, 198). Daughters are increasingly playing important roles, providing a secondary source of support for aged parents; hence human capital investment in daughters are increasing even in traditionally patrilineal society of Matlab (Osaki, 1999; Kuhn, 2006). In terms of age structure, households with few adults are found to be less likely to invest in migration as they do not have candidates for migration (Boyd, 1989). However, Massey et al (1987) found that among the Mexican communities, men with young children are more likely than recently married men to invest in migration because of increased economic needs of the family. Klein adds that families involved in migration are younger than those who do not, but migration starts, not at the beginning of the couple's marriage life as Massey found, but a bit later when first child starts school (Klein, 2005). In parts of Africa, preliminary results from an ongoing study in Johannesburg shows that though greater percentage (45%) of migrants are single men, a growing size of them (30%) are married (Landau, 2006). Socioeconomic factors from revealed data also show that families that engage in migration are relatively wealthy (Adam, 2006) with higher human capital than the average in the community of origin (Peil, 1996, Adam, 2006; Jeffery, 2006).

However, the most influential factors from studies using observed data in perpetuating migration are network and social capital effects. Networks are enforced by the fact that relatives give information in languages that are better understood by the receivers than what the formal mass media or official statistics on the labour market in the destination countries (Fawcett, 1989; Mazzucato, 2005; Mazzucato et al, 2006; Quartey, 2006; Doevenspeck, 2008). Information about potential destinations is not only important for further migration, but new ideas from pioneer migrants and their exposure to new lifestyle also increase aspiration for those left behind to migrate (De Haas, 2010). This is said to happen more frequently among groups with strong bonding and strong bridging capital because they are more likely to benefit from the spread of migration information (*Ibid*). In a theoretical construct, Epstein (2008) adds that it is not a necessity that everyone in the group must have access to full information in order for migration to become self-perpetuating. According to him, people with little information would migrate to where pioneer migrants have gone. Migration clustering in some destinations fails because of absence of these "tiny initial leads" that facilitate migration (De Haas, 2010).

But it is qualitative studies such as the one of Fleischer (2007) that really bring out the dynamics of how transnational families make decisions to perpetuate migration. Collecting

information from Cameroonian migrants in Germany and their families back home, and using in-depth interviews, informal conversations, focus groups and participant observations, she elucidated some underlying structure of rules and beliefs in which family migration decision-making process is embedded. She found that decision to support another member of the family to migrate involves everybody in the household. The major decision-makers are the persons who are investing in the migration project. Parents and/or older siblings exert the main influence on the child to migrate, but cousins, uncles, aunts who are strongly connected to the family are also involved. Sources of financial support for potential migrant come from household income, borrowing from relatives or community members, contribution from relatives, mostly those residing in the potential destination country, and selling of some property. The views of the potential migrants are often times ignored; they are supposed to follow the demands or the wishes of the parents or other relatives who want them to go with expectation of acquiring good education, well-paid jobs financial support, contacts for further migration, remittance for school fees, investments in business (*Ibid*).

Network and social capital factors are important for the perpetuation of migration as they give us some insights into importance of information through network channels in facilitating perpetuation of migration. But what makes the networks very effective in perpetuating migration is the flow of remittances. Negative effects of nonremittance on perpetuation of migration have been observed by Stark (1999) who finds that one of the motives of migrants sending remittances is for them to make sure that others do not follow them abroad. In a way this should be expected if relative deprivation or an economic shock is a major factor in family migration decision. If those left behind are satisfied with the flow of remittances then there is no further need for the household to send more members. In that case remittance would not have any positive effects on intention to perpetuate migration since the primary objective of improving the lives of those left behind is achieved. Also if previous migrants have not performed well at home of origin then sending another member maybe risky as past experience of nonremittance flow could lead to some uncertainties. But in a latter study, Stark and Wang (2002) find that the pioneer migrants, who are usually very skilled or entrepreneurs, do pay for less skilled migrants to join them as this does not threaten their comparative advantage in the host country job market.

2.3.2 Insights from studies using stated preference data

Analysis of observed data alone cannot give us adequate explanation as to why some networks fail to perpetuate migration even with information flow. According to De Haas (2010) this in gap is partly due to the fact that most of the studies are based on observed that which tend to sample only on successful migration systems and leave out the failed ones. But perhaps more fundamental is the fact the subjective expectations of those left behind, who also form important part of the decision to either perpetuate migration or not, have been left out in these analyses. As Manski (2004) rightly concurs "econometric analysis of decision making with partial information cannot prosper on choice data alone." A combination of choice data with other data such as elicited subjective expectation should mitigate the credibility problem and improve our ability to predict behaviour (*Ibid).*

Attempts have been made to use stated preference data in the form of intentions/beliefs to study migration decisions by individuals and families (Adam, 1993; De Jong, 2000). The theoretical justification often employed is that of the theory of reasoned action and planned behaviour widely used in social psychology. The theory posits that most volitional behaviour in society are determined and best predicted by intentions of that particular act and the intentions are themselves a function of people's attitude towards the behaviour or act and their subjective norms surrounding the performance of the act (Ajzen and Fishbein, 1980). Thus according to this theory, a family's or individual migration behaviour can best be predicted by intention to help one of its members to emigrate. The basic assumption is that people will be free to carry out their intentions, which is a huge call given various organisational and other constraints in movements, especially across borders. Following internal migrants, De Jong (2000), for instance, finds that migration is a two-step process: the first is the intention to migrate and the second the actual migration behaviour (De Jong, 2000). Some doubts have been raised as to whether or not this could be the case also for international migration given that there are many more uncertainties and constraints that are likely to prevent intentions to be realised (van Dalen et la, 2005). Avato (2008), for example, holds that more and better information flow is needed for migration intentions to better predict migration behaviour because intentions, under these conditions, are formed with rational expectations than the use of inadequate information flow. As discussed earlier there are bound to be information asymmetries between migrants and those left behind and hence incorporation of migration intentions or decisions are important because people would still

have to make decision to move or not based on the limited information (Epstein, 2008; De Haas, 2010).

The use of migration intentions as *ex ante* stated preferences in studying decision to move has increasingly become popular in studies of determinants of international migration decisions (Drinkwater, 2003; van Dalen et al, 2005; Wentzel et al, 2006; De Jong and Steinmetz, 2006; van Dalen and Henkens, 2008; Avato, 2008; Thissen et al, 2010). Interestingly demographic and socioeconomic factors that are commonly identified as determinants of migration in revealed data are also found in these studies to be relevant in migration intentions. The young, males, household size and the more educated are found to be more likely to harbour migration intentions (van Dalen et al, 2005; Fourage and Ester, 2008). But the effect of education has been found to be ambiguous (van Dalen et al, 2005; Thissen et al , 2010). Thissen et al, for example, find that level of education becomes a significant factor of migration intentions only when it is interacted with networks, while van Delan et al (2005) only find it is significant only among Ghanaians and Egyptians in a four nation study that also includes Senegal and Morocco. In both of these studies the strength of migration networks is said to overshadow any effect of educational background. The strength of migration networks, especially at the destination in influencing intentions has also been stressed by Wentzel et al (2006), De Jong and Steinmetz (2006), and Fourage and Ester (2008) who find that networks override other demographic and social factors such as education, gender, age and marital status. As discussed in the preceding section, this perhaps is not surprising because when social networks of relations and friends are well developed the utility of households will be larger as positive externalities ensure reduction in the cost of movement as well as stay, especially in the first few months or years in the destination country. Past movement also lowers the cost of migration including psychological cost due to experience and access to better information (Liebig and Souza-Poza, 2004). However, Thissen et al (2010) empirically argue that the importance of migration networks, in terms of history of migration is relative to how rooted people are to their area of origin. They find that in villages where most people have strong bond with their traditions, few past migration events do not make any difference in their intentions to emigrate. Nevertheless it is important to stress that migration intentions are strong determinants of decision to actually migrate and hence a good indicator of perpetuation of individual and household migration strategies (De Jong, 2000; Drinkwater, 2003; Liebig and Souza-Poza, 2004; Zohry, 2005).

De Jong (1983) is among the pioneers to have incorporated subjective expectations into studies on intentions to move. He used likert scale of "very important," "fairly important" and "not important" to score various values attached to migration. Controlling for other factors such as migration network as given by number of family members or friends in the destination country, individual demographic, human capital characteristics and kinship, he found that subjective expectations of where goals of the individual migrant can be achieved are quite significant determinants of international migration. More recently, Van Dalen et al (2005) used what-do-you-expect questions to show the effect of pre-migration optimism on migration intention. They found that expectations (or optimism/pessimism) drive individual (from Ghana, Egypt, Morocco and Senegal) intentions to migrate to various destination countries. In Egypt they find that generally individuals that expect to migrate are 1.4 times more likely to do so if they are from remittance-receiving households than if they are from nonreceiving households. The limitation in the use of likert scale or what-do-you-expect question to measure subjective expectations has been observed by Manski (2004), McKenzie et al (2007) and Delavade and Kohler (2009) and Delavande et al (2010). All these studies attest to the fact that this approach lacks specificity as regards true moments of measurement. That is one is not sure whether respondents are stating mean, minimum or not. Perhaps the most robust of these attempts is the one of McKenzie et al (2007). By employing elicited subjective probabilistic expectations, they found that negative feedbacks from migrants have negative effects on pre-migration expectations of potential migrants, but not on their intentions to migrate. What is common from the findings of these studies is that subjective expectations have important role or implications for migration movements.

What has not been addressed adequately in the literature on expectations and migration intentions, however, is the subjective remittance expectations of those left behind. Thus effects of expectations on migration decisions have been confined to the first-order – expectations migrants hold for themselves, following the neoclassical microeconomic model of migration studies. As being noted recently part of this problem has to do with unavailability of data on subjective expectations, especially in Africa (Delavande et al, 2010). The first large scale expectation data in sub-Saharan Africa is notably the one collected in 2006 Malawi Diffusion and Ideational Change Project which involved over 3000 individuals in rural Malawi. But even this was not on migration but on other life events such as health, mortality and economic outcomes (see Delavande and Kohler, 2009).

2.4 Conclusions from the literature review

The theory of new economics labour of household migration has made us to understand that migration can be a whole household decision or strategy to meet economic shocks as well as improve its relative deprivation in the community. It therefore follows that when a family member migrates he/she is expected to contribute meaningfully in helping the family to meet the economic shocks as well as dealing with its relative deprivation (Rosenzweiger, 1989; Stark et al, 2009). Proper functioning of this implicit contract largely depends on remittance behaviour of the migrants as well as expectations from those left behind. The review above clearly shows that remittance expectations could take different forms: adaptive, rational/cognitive, moral or relational, first or second order expectations. The differences in these forms are not clear-cut, leading to conceptual as well methodological challenges.

Due to lack of data and conceptual problems, remittance expectations have only been assumed or equated to observed flow of remittances in most cases. This assumption thrived on another assumption of flow of information necessary for monitoring the implicit contract between the migrant and relations left behind. But due to factors such as cost of information and noncooperative behaviour resulting from maximisation migrant's own utility and change in social class, adequate information flow cannot be assumed. Even the trust of kinship ties is not enough to ensure that information flow between the migrant and those left behind is adequate. And even if information is available it is most likely to differ according to the level of relationship between the migrant and those left behind, and hence expectations may also differ likewise. All this shows that we still have a lot to explain how those left behind form their subjective remittance expectations. This thesis attempts to deepen understanding of formation of remittance expectations from subjective but a more cognitive point of view. That is remittance expectations are basically individual's calculations based on individuals' own consideration of relational bonds and past events. In doing this I do not pretend to have adequately dealt with the complexity in expectations as discussed above, but at least thrown some lights on them.

If perpetuation of migration is a response to relative deprivation or economic, which could be expressed in subjective remittance expectations, then we still have a lot to explain as regards decision to perpetuate migration, especially at the household or family level. This is because studies in migration decisions both for initiation and perpetuation have mainly

focused on demographic, socioeconomic and network factors. The few studies that have incorporated subjective expectations in migration decisions have two limitations: One, they only consider the subjective expectations of the individual potential migrants even though both theoretical and empirical works over the years have shown that migration, especially international migration from developing countries can involve a whole household or family. The second limitation emerging from the few works that incorporate expectations is that almost all of them pay very little attention to the exogenous factors determining subjective expectation levels; thus assuming that expectations have the same effect on future migration behaviour irrespective of how they are formed. And the third shortcoming is the equation of remittance expectations to observed flow of remittances.

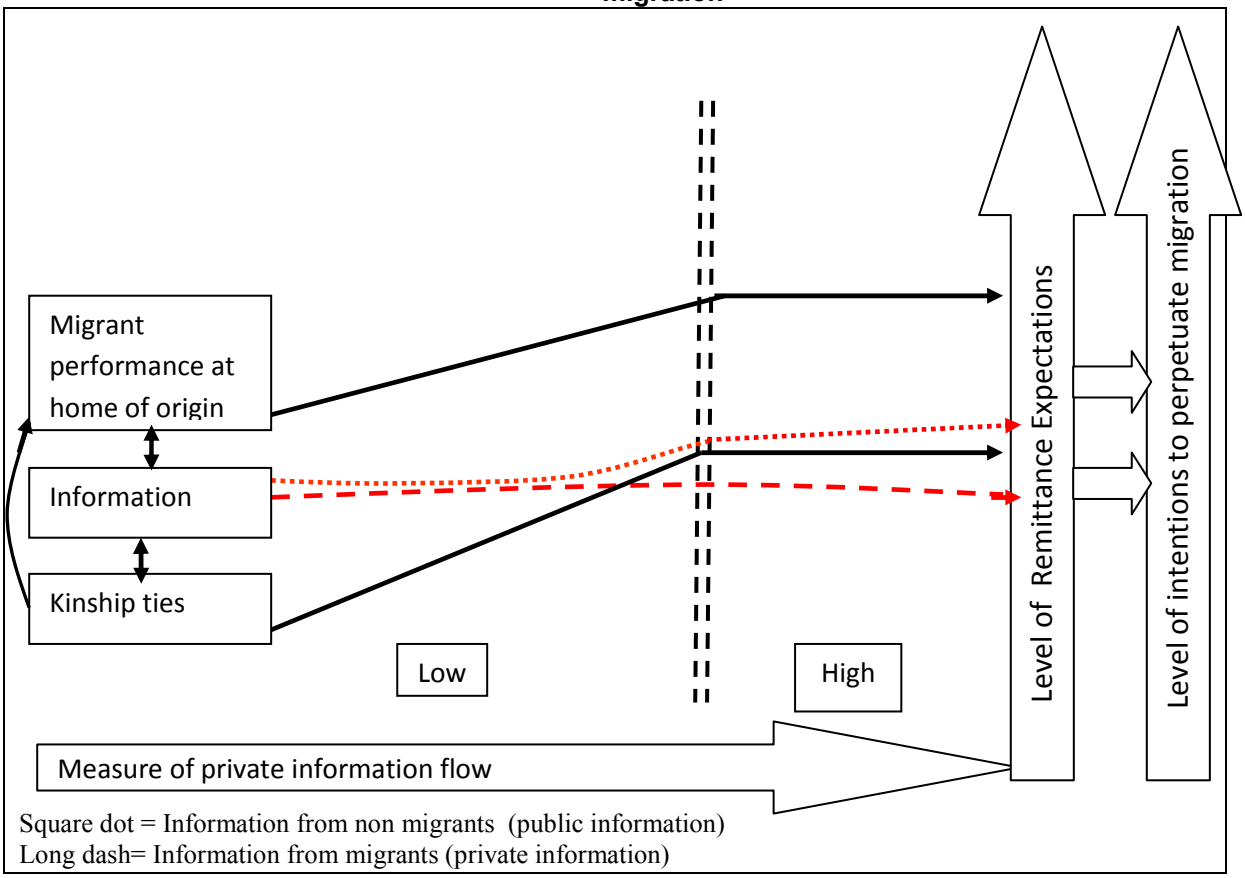
2.5 Theoretical Framework: Actors and processes of remittance expectations

In order to answer the questions emanating from the above discussion we first have to disentangle the main actors and accompanying processes that emerge from the above discussion. From the foregoing discussion it is clear that major actors in formation of remittance expectations are the individual migrants, the family including the extended members left behind and the community of origin. And the processes are information flow, observed flow of remittances or migrant performance at home of origin and kinship ties. The description of these actors and the processes that link them is shown with the aid of Figure 2.1.

Families left behind form levels of subjective remittance expectations given the strength of kinship ties they have with the migrant member. That is given the type of relationship they have with the migrant they would expect the migrant to do certain things for them. But remittance expectations may not just be based on relational or kinship ties. Other factors may affect the process of formation of remittance expectations. One of these factors is the information those left behind get from the migrant or hear about the migrants. The amount of relevant information about the socioeconomic conditions of the migrant and other information available to them may either increase or decrease their expectation levels. This information would usually come from two major sources: dedicated private information which comprises information individual migrants choose to tell their relations back home; and the general public information flow being what relations hear about migrant members

from the community of origin. Dedicated private information could comprise migrant's working status, type of job, salary, marital status, household size, among others, while the public information is usually about what people see or hear about migrants' achievements in the community of origin. The private information could range from little or no information to relatively full information or knowledge about the socioeconomic conditions of the migrant.

Fig 2.1 Actors and processes of remittance expectations and implications for further migration



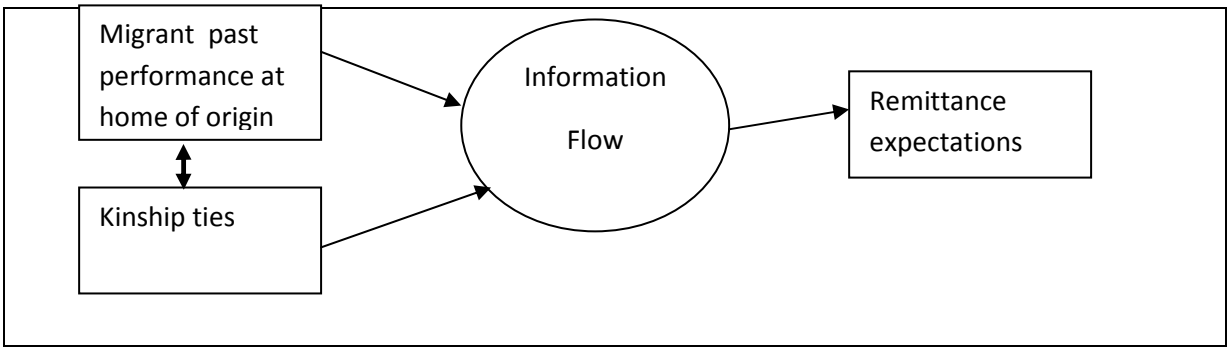
If people left behind do not have much information about the socioeconomic conditions of their migrant relations abroad, then private information may not be a significant factor in the formation of subjective remittance expectation as people may just disregard it and rather put more emphasis on what they hear from or see in the community of origin to form their expectations. Public/general information flow is most likely to have positive effect on formation of remittance expectations, if those left behind only hear of achievements of migrants in the community of origin. On the other hand, if the talk in the community about migrants' achievement is not favourable, the reverse effect on remittance expectation is also

possible, even though that does not seem to be the norm, as observed by Tsikata (2006) in the opening statement. But this public information may have negligible effect on subjective remittance expectations for those whose private/dedicated information flow is high. This is because family members left behind may value information they get directly from their migrant relations more than what they hear from other sources. However, if there is a general disbelief in what migrants tell relations then those left behind would not really "care to hear the stories."

Formation of subjective remittance expectations could be heavily adaptive to past event, expressed in the form of performance of former pioneer migrants or other current migrants in the place of origin, if information flow from the migrant to those left behind is limited. As Tsikata (2006) puts it, relationships have turned sour because migrant members have not been able to "remit them as Johnny has been doing for his parents." People left behind would just use what they see other migrants doing in the community as the yardstick to measure expectations which their migrant relations have to meet. Or they would just assume that it is part of the social responsibilities that migrant relations have to perform as kins, so that parent would not "denounce" their sons and daughter for not remitting.

As Figure 2.2 (a simplified version of part of Figure 2.1) demonstrates, the effects of these two processes – performance of migrants in the community and kinship ties – on formation of remittance expectations would also depend on the type of information flow to the migrant households left behind. Under conditions of high private information flow, for example, remittance expectations could be tempered with realism as people left behind would have more realistic knowledge of the struggles and difficult conditions under which migrants make a living in the destination country.

Figure. 2.2 The role of information flow in remittance expectations



On the other hand if the family left behind relies on public information from the community, the effects of kinship ties and migrant performance may be huge as discussed earlier. Information flow is therefore a key factor that acts as a check on effect of past migrant performance and kinship ties on remittance expectations. But again this would hugely depend on whether or not those left behind "care to hear the stories" from their migrant relations residing abroad.

It is also important to stress that there is likely to be some interactions in these processes. For example, observed flow of remittance (or performance) could come with information flow since migrant may have to communicate as they send their remittances. In the same way if past performance of migrants has not been good for some of the relations left behind, the frustrations and disappointments – as expressed in Tsikata's (2006) observation - may have a negative effect on remittance expectations. But perhaps the most significant interaction would be between private information flow and kinship ties as the levels of the former are likely to differ according to the type of relationship people left behind have with the migrant. At low levels of private information, expectation levels of the extended relatives may be slightly higher than those of the immediate relatives, mainly because, expectations of the latter would be more affected negatively by the disappointment of not getting adequate information from their migrant member.

All the scenarios coming from various interactions and processes of formation of remittance expectations may have different implications for future decisions for those left behind to support migration of other members in the family. Remittance flow does play a crucial role of maintaining kinship ties. Families are linked to the areas of destination through migrant members or relations. And what links the system is the exchange of resources in the forms of information, money, social assistance and emotional supports; the most significant of these is the remittance (Root & Jong, 1991). Family impact on migration is very enduring. Even if rules and policies change, the obligation towards one's family members will not change. Family members are more trusted source of information regarding destination countries than any migration agency or the media can give. This is reinforced by the fact that relatives give information in languages that are better understood by the receivers than what the formal mass media or any migration agency can give. Ultimately there is a transnational

migrant network which, in a way, translates into a social capital upon which people – both the migrant and those left behind – rely to gain access to resources and also to enable future migration of members (Massey et al, 1999). This shows that in addition to financial and human capital, social capital is also an important factor in people's motivation to migrate (De Haas, 2010). It is therefore not surprising to find that remittance expectations, which are a by-product of this social capital of migration, are at the centre of both initiation and perpetuation of migration at both community and household levels (Massey et al, 1993). The effects of subjective remittance expectations on family decision to perpetuate migration would also depend on the conditions under which remittance expectations are formed. For example, high expectations that are likely to come with inadequate private information flow, as discussed earlier, may also lead to a high desire of those left behind to support migration of other members. This is because their expectations would mostly be based on what they see or hear in the community. Expectations in such conditions would continue to rise and this would make the households continue to support other members to migrate so as to reap more from migration. But under high dedicated private information flow, expectations might be checked and hence the desire to continue to support other members to migrate may also be checked unless they "do not care to hear" whatever the migrants tell them. In the above case families would continue to support members to migrate irrespective of the fear of the unknown following the belief that the potential migrant "may be the fortunate one to scale the barb fences successfully to the promise land where the pastures are green." Thus in order for us to fully understand why families and individuals would continue to support relatives to migrate in spite of the possible dangers, we need to first know what is behind the expectations that propel their decisions to support migration in the family.

2.6 Hypotheses

The main hypotheses to be tested in this study are the following:

1. Receipts of remittance do not necessarily lead to increased flow of information between the migrant and those left behind. The literature has it that remittance flow comes with information (Van Dalen et al, 2005) that could help those left behind to form some 'rational' expectations. But I don't think this is necessarily the case.
2. Remittance expectations, though based on cognitive calculations, are influenced much more by relational and past events than information flow, especially dedicated information from migrants.

3. The desire or intention to perpetuate migration at the household level could be influenced by remittance expectations. But when these expectations are more informed by dedicated private information flow from migrant, the effect on desire to perpetuate migration is very much reduced or even insignificant.

CHAPTER THREE

METHODOLOGY: DESCRIPTION OF FIELDWORK

3.1 Introduction

The discussion on the background of the study in Chapter One showed that inter- and intra-family transfers, which mostly involve money, are quite embedded in the Ghanaian societies, despite the increasing trend of nuclearisation of the family. And in Chapter Two we saw that international migration and the remittance expectations that go with it, in a way, is a by-product of this socioeconomic support system which is so ingrained in many African societies. To determine subjective remittance expectations of migrant families left behind and how this affects future family migration intentions, the need for appropriate methodology cannot be overemphasized. As alluded to in the literature review, there is not much data on expectations, including remittance expectations, so I had to use primary data. Simple though this might seem, generating remittance expectations data from such population presents some methodological challenges. Apart from the general sampling problems around migration studies, defining concepts such as family, remittance expectations, etc in such populations where these terms are loosely used present a challenge to any researcher. In this Chapter, I describe the concepts and processes used to gather data as well as the challenges associated with the processes.

3.2 Choice of study area

International migration is relatively common in many parts of Ghana (United Nations, 2004; De Haas, 2007; Corrado et al, 2008). Obviously, there are various national and regional factors such levels of economic development, political atmosphere, cultural change and others as described in previous chapter that directly or indirectly affect migration processes in the country. But to measure remittance expectations and their effects on perpetuation of migration we shall study a population in which the culture of international migration has become part and parcel of ordinary household life. These are areas that are quite prominent in sending its people abroad. These areas include Brong Ahafo, Ashanti, Eastern and Greater Accra regions of the country (De Haas, 2007). After seeking expert advice from Professor Awosabo-Asare, the head of Population Studies Programme at the university of Cape Coast, Ghana and Dr. Susie Ubomba-Jaswa, formerly the head of population and epidemiology division of Statistics South Africa, who also hails from Ghana, Brong Ahafo Region was

suggested. The reason for this suggestion was that unlike Kumasi and Accra, most of the migrant households in this region are indigenes of the region. Also this region is among the highest recipients of remittances from migration, especially international migration (Anaarfi and Awusabo-Asare, 2000). The two most urbanised areas – Sunyani and Berekum – where international migrant households are mostly found were chosen. The choice of these two districts was also based on the fact that compared with the national population pyramid from the 2000 census these two districts show a slight deviation from the norm. They show a decrease in age-sex cohorts between 20-29 age groups. And this has been attributed mainly to both internal and international out-migration (Ministry of Local Government, 2006). Another reason for the choice of this area was to allow for a good mixture of both legal and illegal migrants. Though international migration in this area is largely through network facilitated by earlier migrants, in recent years the area has been noted for increasing number of youths migrating illegally. For example, in 2009 the Ghana News Agency quoted Apea-Kubi, the Deputy Minister of Interior that "about 60% of Ghanaians deported from Europe are indigenes from the Brong-Ahafo Region" (GNA, 2009). But the most important reason for the choice of these two areas is that with their long history of international family migration, they present some meso-level socioeconomic contextual feedback mechanisms such as migrant networks, migration-induced social stratification, remittance-financed migration, etc (see Appendix 3A to locate the two districts on the map of Ghana, and Appendixes 3B and 3C for detailed maps of the districts).

The economic activities of these two districts are small- and medium-scale businesses such as manufacturing of garments, leather products, metal fabrication and spare parts, carpentry and joinery and trading. But agriculture, especially in food crops and cash crops such as cocoa and palm plantations, is the main economic activity in the area. The region, as a whole, is said to be the food basket of the country. And with the decline of agricultural activities which are the main sources of income, it is not surprising that the youths from this area are seeking greener pastures elsewhere. All this makes the population of these two areas appropriate for the study.

3.3 Migrant family

Before a sample is drawn from the population of the study area it is important for us to determine boundaries within which the main unit of analysis for the study – migrant family

– falls. In migration studies a family is considered as a migrant household if at least one of its members has migrated and/or still resides abroad for a certain period (Eurostat NIDI, 1995; Adams, 2005). The Eurostat and NIDI study qualified this definition by adding that, the principal commitment and obligation of a migrant must be to that household and the migrant must return to this household in the future. A slightly different definition is used for this study. A migrant family in this study is the one that has got a close relative who still resides abroad. Close relations include migrant(s) related to the household head as brother or sister, son or daughter, father or mother, nephew or niece and in-laws or even as a friend. The migrant does not need to be a member of that household in the strict sense of returning to that household in the future. The advantage of relaxing the definition this way is to cover all those in the extended kinship system who may not share the same household with the migrant but still expect the migrant relation to do something for them. As observed in the background section of Chapters One and Two, it is a common practice in Ghana and many African countries for migrants to support relations both in the nuclear and extended kinship system including those residing abroad. The kinship economic and social support system is not only limited to those at home, but also those abroad. Hence using a narrow definition of the migrant household excludes a whole lot of people in the kinship network who also are expected to remit. In places like Ghana, one of the main objectives of migrants is to build their own houses. Even though some of these houses accommodate relations, on return, migrants stay mainly in their newly built houses and become household heads, a significant shift from the household that accommodated them before migration. If the household has relation who was once an international migrant, but he or she is no longer one, that household does not qualify to be a migrant family in this study. In other words if the migrant has returned home permanently that household does not qualify to be counted as a migrant family.

Following Unalan (2005), a migrant in this study is defined as one who has migrated to stay abroad for a continuous period of at least one year. This was done to distinguish the target population from short moves which may not carry expectations of remittances. However, if the migrant has migrated recently, at least three months ago, and is intending to stay for at least a year, he or she is considered a migrant relation of the family and the household is counted as migrant family.

3.4 Sampling strategy

The primary sampling units of the survey are individual migrant families as defined above. That is households that have migrant relations outside Ghana. The major eligibility criteria are: the household must know a migrant who resides abroad for at least a year; and that the migrant(s) must be related to the household as defined above. Generally sampling was conducted in a way that would be representative to the two districts chosen for the study. In sampling international migrant households, there are three major challenges that must be considered: the tendency of international migrant households to concentrate in a particular area, especially in relatively wealthy or emerging suburbs; two, the general rarity of migrant households; and three, the lack of adequate information on geographical distribution to serve as sampling frame for international migrant households (Corrado et al, 2008; McKenzie & Mistiaen, 2009). For example, a prior analysis of the Ghana Living Standard Survey (GLSS) 4 & 5 could not give useful information for a sampling frame. The only variable that can be used to identify international migrant households from this survey was the source of remittances from various regions of the country and from abroad. An attempt was made to use this as a proxy for international migrant households. The distribution that came out of this was disappointingly not adequate for sampling frame at the district level. For instance, in Berekum, GLSS5 has no household said to have received remittances from abroad in the year prior to the survey.

Given the challenges inherent in the survey, a different strategy was adopted for the sampling procedure. A chain-referral approach was used to identify the international migrant households in the two districts. An important condition for this approach is that people must know the households that have relatives abroad (Kalton, 1991). In Ghana, and particularly the area for the study, knowing and identifying the migrant households is not a problem as people know them by their wealth exhibited in the type of houses they live in and displays during ceremonies such as funerals. Also since the area chosen for the study have closely knit communities people know a lot about general movements of one another, including migration flows. A major problem with this approach though is that people with large networks are more likely to be over-sampled. It was for this reason that the second stage of the sampling process was introduced.

At the second stage (see Table 3.1), a random selection of 1000 international migrant households with probability proportional to the size of number of households with international migrant relations was applied. The choice of 1000 as sample size was based on cost, time as well as representativeness of the geographical area chosen for the study. Representativeness of the sample is important because the acceptance of how people form expectations of remittance flows and how these expectations influence future migration probabilities depends on the extent to which this information can be generalised, at least, at the district level. Due to high probability of selection of migrant families, the sample is highly representative of at least the whole region and possibly other high emigration areas in the country indicating a good external validity of the study.

An average response rate of 94% shows relatively successful completions of the questionnaire given people are usually reluctant to talk about their migrant relations to strangers. There are two main reasons for this relatively high response rate. One, in the pilot study it was found that respondents answer poorly when interviewers start with questions on migrant relations. To avoid possible noncooperative behaviour, interviewers were trained to remove or reduce suspicion by emphasising the fact that the study is about them more than their migrant relations abroad. Also the simplification of elicitation of probabilistic

Table 3.1: Sample design

	Listed Migrant Households	Selected households	Responded	Response Rate	% of total sample	% of total response
Berekum Municipality						
Berekum central	235	151	146	97	27	27
Senase	220	142	139	98	25	25
Amangoase	184	118	114	97	21	21
Zongo	156	100	91	91	18	17
Kato	88	57	56	98	10	10
Total	***883***	***568***	***546***	***96***	100	100
Sunyani Municipality						
Abesim	169	109	103	94	25	26
Sunyani Central	173	111	102	92	26	26
New Dormaa	164	106	98	92	25	25
Nkwabeng	96	62	59	95	14	15
Zongo & Nkrankrom	68	44	35	80	10	9
Total	***670***	***432***	***397***	***92***	100	100
Grand Total	***1553***	***1000***	***943***	***94***		

expectation questions also helped increase in the response rate (See Chapter Five for details about this simplification). The other reason for high response rate was that with the assurance that the study is a student project and has nothing to with any political party or agency, gave respondents some confidence to cooperate with the interviewers. Some respondents deemed it as "giving a helping hand" for a student to finish his studies. As will be explained later in this chapter, this assurance was important, because people were just coming from the most closely contested general election in the country.

Of the 943 migrant families that were successfully interviewed, almost two-thirds (59%) have only one close migrant relation abroad. The other 41% have either two or more migrants that are close to the families interviewed. Very few households mentioned more than six migrant relations. They were included in the category six of number of migrants per household (see Table 3.2). In all there were 1590 migrants about whom relevant information was acquired through interviews with the families left in Ghana.

Table 3.2: Number of migrant relations per household

No. of migrants/household	No. Households	No. of migrants	Percent of Household
1	560	560	59
2	228	456	24
3	95	285	10
4	27	108	3
5	17	85	2
6	16	96	2
Total	943	1590	100

3.4.1 Problems with sampling procedure

There are a few concerns with this type of sampling procedure. One of the concerns is that it is not nationally representative and the sample regions or domains were chosen for their relatively high incidence of international migration. Therefore, the dataset is likely to show a higher incidence of international migrant households than would be the case for the country as a whole. In any case the study was not meant to be a national one. But given the general picture discussed in the immediate chapter, the results may not be far from what obtains nationally.

The most challenging issue in sampling is increasing precision of estimates while lowering cost. In order to keep the cost of transportation, listing and interviews to a manageable limit only domains or regions of high concentration of international migrant households were sampled. With this clustering the degree of homogeneity is likely to be high – households in the domains are likely to have, for example, similar income and occupation characteristics, or they may have similar attitudes towards expectation of remittance flows. As we will see in the next chapters, the standard errors of the coefficients in various regression estimates give no cause for alarm about the variability of the data.

3.5 Questionnaire design

In order to facilitate collection of accurate information a simple questionnaire was developed, revised and validated with a pilot study. Questions follow the recommended sequences of sample unit, demographic characteristics of the individuals and finally the detailed questions on main objectives of the study (United Nations, 2005). For example, since the flow of realised remittances might influence or condition people's responses to questions on expectations, questions on remittances were asked after those of expectations. Generally the questionnaire design took into account the following issues: data requirements for analysis, type of questions (close, open/pre-coded), detailed instructions to the enumerators, logic of layout, ease of handling, manageable length, wording and ordering of questions and, the need for built-in cross checks.

The questionnaire was pilot-tested with several variations before the final version was developed. The original questionnaire sought to use probabilistic elicitations such as percentage chance of getting a migrant to build a house, establish a business etc. The percentage points were given in 20%, 40%, 60%, 80% and 100%. During the pilot phase, it emerged that people found this a bit cumbersome. As one respondent put it a bit frustratingly "I know Kwesi will have to build the house in about 5 years because that's the way it is done here. All the migrants from this community do the same." This resulted in poor response and hence a revision of that part of questionnaire (see Section 5.6 in Chapter 4 for more details on how the revision was done). On average, the final questionnaire took about 33 minutes to be administered. See Appendix X for the full questionnaire.

3.6 Implementation of field work

Of great importance for the success of any survey is the need for ample time to plan the survey. The first part of the planning stage was to go and visit the place. This was familiarisation visit during which I was able to get necessary clearance from the relevant authorities to conduct the study. Clearance letters were acquired from the district chief executives and the police commanders of the respective districts. This was necessary to prove to the respondents that I had the backing of relevant district authorities and that the survey had nothing to do with politics, since the country was just coming from highly contested general elections.

3.6.1 Recruitment and Training

Families consider issues relating to their migrant relations abroad as confidential and hence are not ready to tell 'strangers' about them. Others may view any attempt by strangers to know a bit about their migrant relations with suspicion. These possible challenges were taken into consideration when recruiting fieldworkers. Secondary school teachers and university graduate who were on national service assignment in the area were chosen to conduct the field work. The main criterion for this selection was not only because they are capable of understanding the concept of the study but also these people are among the well respected in their respective communities.

Training the team of fieldworkers was a continuous process that began with its formation until the end of the survey. Initial training was mainly about the following issues:

- Discussion of remittance expectations
- Discussion of study aims, objectives and expected outputs
- Visits to the selected study sites - acquisition of consent from concerned parties, including those from the district chief executives
- Commencement of initial training
- Discussion of study schedule and preparations for fieldwork

On-going training continued throughout the collection for information. Also in order to avoid or minimise nonsampling errors the objectives of the survey were clearly spelt out for the interviewers as follow:

1. To collect information on the socioeconomic characteristics, observed remittance flows, expected flow of remittance, socioeconomic and demographic characteristics of the international migrant households or families, and their relationship with the migrant members. They were also made to collect information on intention to support other members of the family to migrate.
2. In addition, they were made to understand that the information they collect should be able to
    a. help determine how types of relationships between the migrant and those at home influence realised flow of information and remittances.
    b. help the measurement of levels of remittance expectations relatives hold for their migrant members.
    c. help in the assessment of how these levels of remittance expectations can influence future migration participation by households

3.6.2 The universe

As part of the planning it was important to let field workers know the geographical and target population to be covered. It was made clear to them that the study is limited to the two districts of Sunyani and Berekum of the Brong Ahafo Region. Each of them was given a copy of the list of areas to be covered. The target population was the international migrant households with clear explanations of the definition given above. The head of the household was the main respondent. In absence of the household head the spouse or any person deemed by the household to be in position to answer the questions was chosen. In cases where the respondent was not the head of the household, interviewers were instructed to indicate the relationship of the respondent with the household head.

Table 3.3 below gives some basic characteristics of respondents. Most of the interviewees were the head of the household (65%). In situations where the household head was not disposed to respond, children or the spouse were the main people designated to grant the interviews. The head of the household was however required to be present to assist in questions that could not be answered by the designated members in another visit. The education level of the respondents was generally good for them to grasp the concept of the questions. In any case the final questionnaire was not too technical to be grasped. And the interviewers were well trained to explain things well for respondents' understanding.

Table 3.3: Some basic characteristics of respondents

Relationship of respondents to the household head		
	Number	Percent
Household head	614	65.1
Spouse	61	6.5
Son/daughter	212	22.5
Nephew /niece	15	1.6
Parents	9	1.0
Brother /Sister	26	2.8
Grandchild	6	0.6
Total	943	100.0

Education level of respondents		
No formal education	80	8.5
Finished primary school	60	6.4
Finished Middle or JSS	319	33.8
Finished senior secondary	270	28.6
Tertiary	214	22.7
Total	943	100.0

CHAPTER FOUR

METHODOLOGY: KEY CONCEPTS AND ANALYTICAL TECHNIQUES

4.1 Introduction

Before presenting the results from the analysis there are some key concepts which need to be operationalised in this study. Concepts such as household wealth, household human capital, performance of migrants, information flow and subjective remittance expectations are complex and multidimensional. There are many sources of information that can constitute each of these concepts at the household level. Hence there is a need to construct indices that can place individual households on continuous scales of wealth, human capital endowment, information flow, observed remittance and expected remittance flows. In the first part of this chapter I explain the procedures used for constructing these indices. In the second part, I discuss the statistical analytical techniques used for various investigations.

4.2 Construction of Indices

This section of the chapter presents series of indices constructed to operationalise some key concepts used testing the hypotheses mentioned in Chapter Two. Cronbach's Alpha is used to measure internal consistency of all the indices, except that of human capital. Cronbach's Alpha tells us how closely related are the sets of components used for various indices. A high value indicates that the items are suitable for measuring the underlying construct of what it is intended. Since this measure does not imply unidimensionality, it is often advisable to include exploratory factor analysis to check dimensionality of the items used. Appendix 4A gives the results from both Cronbach's Alpha and exploratory factor analyses for various indices. The index score of household level human capital is left out, because as we will see shortly, this index does not involve many items.

4.2.1 Household wealth index

If expectations are reflections of household relative deprivation and if households need financial resources to support members to migrate, then we need to know the wealth status of individual households. There are two sources of information from which household wealth can be determined in this study. The first is could be determined from the direct question on total annual income of all the members in the household, and the second from household durable assets. The stated income was not used for the wealth determination for

two reasons. One, being a sensitive issue, income reports are subject to non sampling errors. The reasons for this sensitivity could be that respondents fear taxation, sharing income with relatives and low social status etc. Even though in this survey only 40 households (4.2%) of the total sample refused to answer questions on total household income, the missing income information could have impact on the analysis. Two, income is a flow variable that is defined in terms of a specific time period. Collecting accurate data on a flow variable is more difficult than collecting accurate data on a stock variable, such as assets, which can be measured or observed at one point in time. The accuracy of an estimate for an income flow variable can depend on many factors, including whether or not accurate written records are kept. Lack of written records and hence reliance on recall of income information about each member of the household could highly be prone to recall errors. And the third problem is that lack of record also contributes to making the fungibility of financial resources within the household difficult to attribute flows to their appropriate sources, and to accurately calculate net income. For example due to lack of appropriate record it is difficult to attribute household income to investment with remittances from abroad or proceeds from their own business at home. Many experts recommend frequent and multiple visits to the household to overcome some of the problems associated with income flows and inaccurate recall through direct observation. Thus generally the traditional approach of collecting data on income or expenditure requires extensive data on each household, which was too expensive for this study to carry.

Given the problems associated with using stated income or expenditure, in recent years, wealth measures derived from durable household goods and from access to services have been tried out as substitutes for income or expenditure-based ones. Following Kalton (1991), Vukovic et al (2008) and Balen et al (2010) household wealth in this study was determined from an index of household durable assets. Households were asked to indicate whether or not they have the following items: fridge, television, motor vehicle, bicycle, landline phone, radio, cell phone, electric fan, stereo, satellite dish, electric/gas cooker, computer, tractors/ploughs, motor bike, DVD player and microwave. Since some households do have more than one of these items, respondents were asked to state the number of these items that household members are free to use.

Even though in his study in southeast Nigeria, Onwujekwe (2006), questioned whether proxy measures such as the use of assets as done here are indeed more reliable than direct

measurements such as the use of income or expenditure, there are well documented advantages of using assets as a proxy measure of household wealth (Inssera, 1996; Vukovic, 2008, Balen et al, 2010). It is easier to collect data for assets. This is because assets are conceptually easy to deal with, and questions about them tend to be unambiguous and easy to understand (Inssera, 1996). Interviewers can visually verify physical assets, and thus contribute to the accuracy of responses. Eliciting information on assets may be less sensitive than direct questions on income. This may also contribute to increased accuracy of the information. Since assets are a stock variable that pertains to a single point in time, providing information on the current status of assets need not involve as much recall for respondents, and therefore as much associated recall error, as providing information on income flows does (Inssera, 1996; Vukovic, 2008; Balen et al, 2010). In addition, assets are not as subjective to the kind of frequent and seasonal fluctuations that characterize income. And finally, the level of assets may provide more meaningful information about likely future and long-term changes in household living conditions, since productive assets can continue to be used and affect economic well-being into the future (Kumar 1989, cited in Inssera, 1996). In spite of these advantages the use of asset as proxy for wealth is not totally free from the problems associated with fungibility of household capital. For example, it is difficult to find the contribution migrants remittances make to the purchase of these assets. An attempt was made to avoid or reduce the effect of this problem with elimination of assets acquired through remittance from abroad from the index. Though it helps to reduce the problem this attempt may not entirely eliminate problem of fungibility since the use of remittances on other things such as feeding, school fees, health and utility bills may also cushion households to purchase these durable assets. It is also possible that a household may attribute the purchase of these assets to income from a business which may have been financed with remittances from abroad. But one could also argue that even in such cases the household might have added some value to the receipts from abroad and hence they can have some rightful claim to the purchase as coming from their own resources.

Though some households stated possession of more than one of the assets, the variables are treated as ordinal information. Hence in conformity with the recommendations from Kolenikov and Angeles (2009), *polychoric* principal component analysis (PCA) is used to score the level of wealth for each household in the sample. This becomes necessary because as Kolenikov and Angeles (*Ibid*) advise, in cases where the variance of proportion explained is important in the study, *polychoric* PCA is more appropriate technique to use. With PCA,

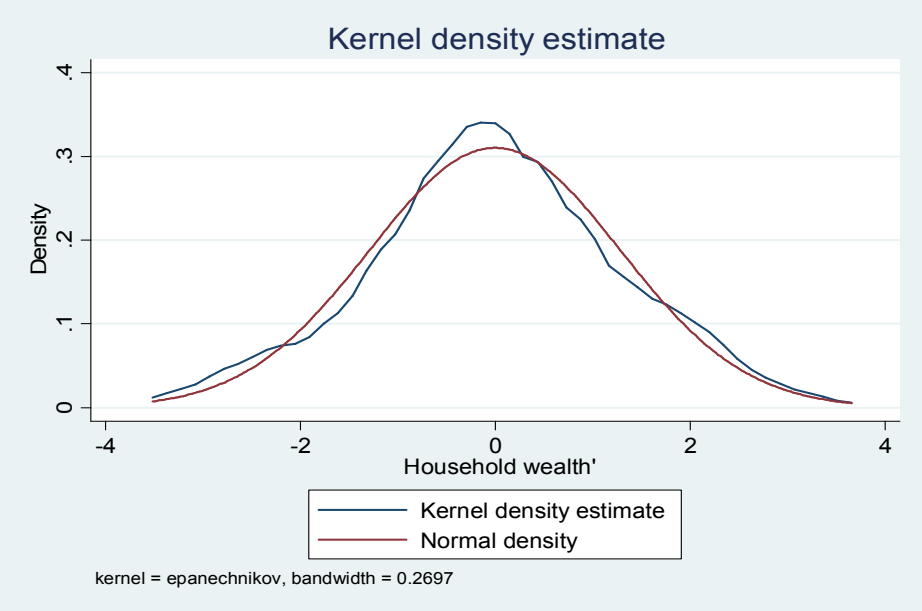
variables are weighted with the proportion of the variance in the original set of variables explained by the first principal component. This technique has the advantage of determining the set of weights which explain the largest variation in the original variables (*Ibid*). Households use a lot of durable assets so it is important to emphasize on the proportion explained by few variables. Here the proportion of variance explained in the first component is about 39% (see Appendix 4B-2). The proportions explained by the first and second components are dominated by household electrical appliances such as radio, fridge, television, electric fan and DVD player while that of the third component is mainly dominated by phone, satellite dish, computer and gas/electric cooker (Appendix 4B-1). This is not surprising given the urban setup where electrical appliances are commonly used. The second and third components explain 18% and 7% respectively. Together the first three components on which the scores are mainly based explain about 64% of the variations. The resulting asset scores, based on the first factors, are then divided into population quintiles – five groups with slightly different number of observations as shown in Table 4.1. The first quintile is the poorest and the fifth, the richest. The kernel density plot with overlaid normal density as given in Figure 4.1 shows that wealth among these migrant households is normally distributed

Table 4.1: Wealth quintile of households

	No.	Percent
1st quintile	192	21
2nd quintile	203	21
3rd quintile	171	18
4th quintile	189	20
5th quintile	188	20
Total	943	100

As shown in Appendix 4A, the Cronbach's alpha measure of (0.75) is good indicating that the scale or index is good enough to be used. The *eigenvalue* of the first factor is larger (more than twice) than the second factor, and it accounts for almost 50% (0.47) of the total variance. Thus there is some reasonable level of *unidimensionality* in the items used.

Figure 4.1: Kernel density plot of household wealth



4.2.2 Household human capital index

Human capital is a key factor in international migration can affect remittance expectations levels as it can enable household to access information about the migrants. The best way to factor human capital at household level in various analytical techniques is to construct an index. A very simple approach is used to estimate household level human capital index since the computation involved only one variable: years of education. Education in years of all household members of age 15 and above was summed. The resultant sum is then divided by the number of household members of age 15 and above. This is done to adjust for the effect of household size. The result is then grouped into five quintiles. Table 4.2 below shows the composition of human capital for the household in the survey.

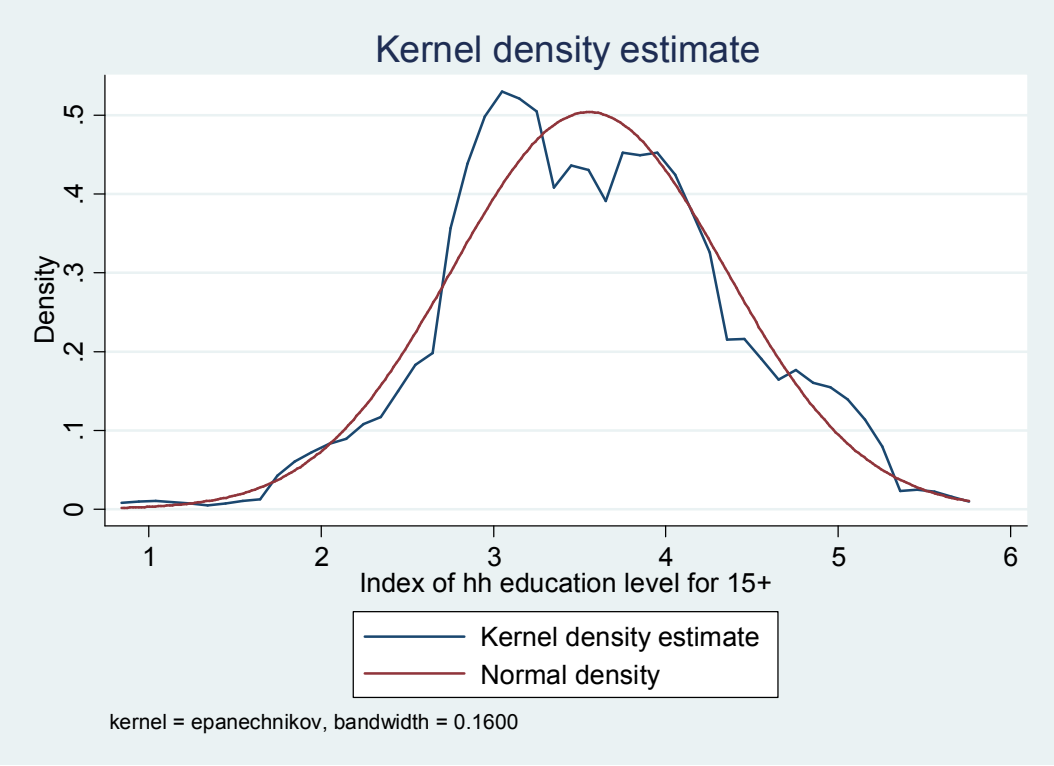
Table 4.2 Human capital quintiles of households

Quintile	Freq.	Percent
1st quintile	325	34
2nd quintile	57	06
3rd quintile	199	21
4th quintile	177	19
5th quintile	185	20
Total	943	100

Interestingly about 34% of the households have the lowest per-capita human capital. Most of these households with the lowest human capital are large and about one-third of them are in the 1st and 2nd wealth quintiles. These are the households most of whose members have only completed primary or secondary school. It is surprising though that about one-third of the households would are in this low level of human capital given that international migrant households are generally found to have more than average level of education in the community. The reason for this is that this is a high-emigration society so factors such as human capital that selects households into international migration is no longer an important factor due to network effect as explained in Chapters Two and Three. Also as mentioned in the previous chapter, it is this migration network that has made this area popular for illegal migration among the youths, both highly educated and otherwise.

With the human capital index involving only one variable, there was no need to employ Cronbach's alpha measure. But the kernel density plot (Figure 4.2) of household human capital does not show any serious deviation from the normal distribution.

Figure 4.2: Kernel density plot of household education level



4.2.3 Measuring migrant performance at home of origin

One of the major determinants of expectations of any event is the past occurrence or trend of the event itself. The past event in our case here is the performance of migrant at home of origin. This performance plays a major role in the formation of future remittance expectations of those family members left behind. As Tsikata (2006) noted families are not happy with their migrant members because "they have not been able to remit them *as Johnny has been doing for his family*" (emphasis mine). It is therefore important to explain how I conceptualise measure migrant performance at home of origin.

As noted in Chapter Two, observed flow of remittances has been measured in various studies using monetary and nonmonetary items migrants send home. The usual practice has always been to use the monetary values of the nonmonetary items and add them to the money sent to the total amount. This absolute measure of remittances could be used when one is studying, for example, effect of remittances on household income, livelihood. But when studying remittance as a major factor in expectations, the use of absolute values may not be the best. This is because people left behind usually refer to what migrants have achieved within a certain period of migration (Tsikata, 2006). Remittance flow is therefore operationalised as migrant performance adjusted to the time migrant has been away and weighted. I refer to this time-adjusted remittance flow as performance of migrant at home of origin. That is if parents are complaining about their migrant sons' and daughters' inability to do for them what "Johnny has been doing for his parents," then we have to factor the number of years migrants from the two families have been away before we can make judgement about their performances for their respective families at home of origin. Thus migrant performance is not just cumulative results of remittances sent over the years, but operationalised as what the migrants have achieved relative to the number of years they have been away. Further details of the procedure are given below.

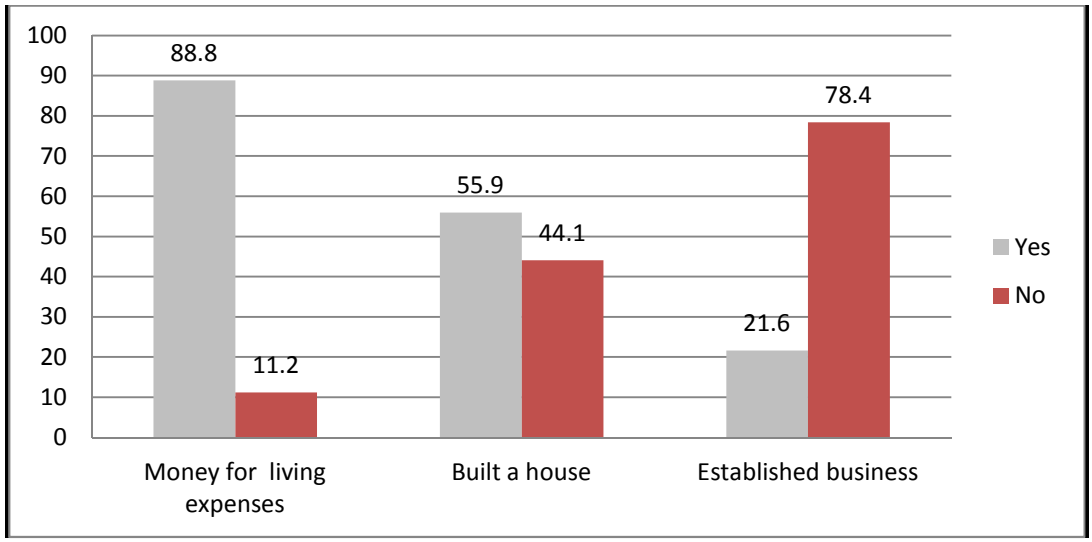
Drawing from previous works; families were asked to indicate whether or not they were getting some support from relations residing abroad. The items were limited to the three most popular ones for which most households support members to migrate: annual amount of money for living expenses including school fees and healthcare etc, investment in business venture and establishment of a house (see Diko & Tipple, 1992; Adams, 2005; 2006; Brown & Leeves, 2007; Mazzucato, 2009). That is migrant households were asked to

state whether or not their migrant relations have provided these items. Respondents also provided the time period within which each of these items were accomplished.

The problem with recalling information like this is that data may be subject to inaccuracies and distortions due to a number of different types of nonsampling measurement and response errors. The length of time between the actual event and the act of recall may affect the quality of information collected. But some scholars argue that errors due to recall need not present an insurmountable problem, because it is assumed that the inaccuracies caused by recall will be random and so will not interfere with the statistical analysis (Inserra, 1996). In addition, memory for regularly occurring events such as flow of money tends to be relatively good, unless the amount of flows vary considerable from time to time like daily sales in the retail shop. But money flows mostly at a frequency of once a month and this helps overcome any problem associated with recall. Most often the flows are of the same amount of money. Recall of migrant performance in the other two items should not be difficult, because establishing a business or building a house is an important livelihood event that cannot be easily forgotten.

Almost 90% of the 943 migrant households have received at least one of the three items (Figure 4.3). This leaves a sample of 837 remittance- and 97 non-remittance receiving households respectively. As regards individual items, the flow of money for living expenses such as feeding, health, education etc expectedly score the highest among three items, with about 89% of the families having received some money. This is consistent with the findings of other studies in Ghana (Black et al 2003; Anaarfi et al, 2003). About 56% of the migrants are known to have built a house at home of origin, underscoring the importance of getting a house as one of the major objective or expectations of migration in most Ghanaian communities (Owusu, 1998; Diko & Tipple, 1992; Adams, 2005; 2006; Mazzucato, 2009). The low percentage of business establishment is also expected (see Black et al, 2003; Orozco, 2008) as this is not as important an objective of migration as the other two items. Moreover, while houses are mostly built while the migrant is still abroad, business investments are mostly done when the migrant returns (Black et al, 2003; Mazzucato, 2005). Business investments done while the migrant is still away, mostly come as support for siblings left behind at the home of origin (Manuh, 2001). These include personal services, retail, light industry, restaurants, construction and agriculture as we saw in the introductory

Fig.4.3 Percent of families that have received or not received items from migrant relations



chapter (Owusu, 2000; Black et al, 2003). From the sample the average amount migrants send is about GH¢894 (US$650) for living expenses which is roughly about one-seventh and one-fifth of what migrants generally send annually for building a house and opening a business respectively (see Diko and Tipple, 1992; Orozco, 2007). Weighting of each item therefore takes the form expressed in Table 4.3. On average migrants take within two years to start sending money for living expenses while it takes much longer period, five and six years to respectively realise their other two objectives of building a house and opening a business venture. Again I use Cronbach's alpha as an exploratory factor analyses to determine internal consistency and unidimensionality respectively. The results, as given in Appendix 4A, show that the items have good level of internal consistency (Alpha=0.71) and are unidimensional (first factor explains 65% of proportion of the variance).

Table 4.3: Weighting migrant performance

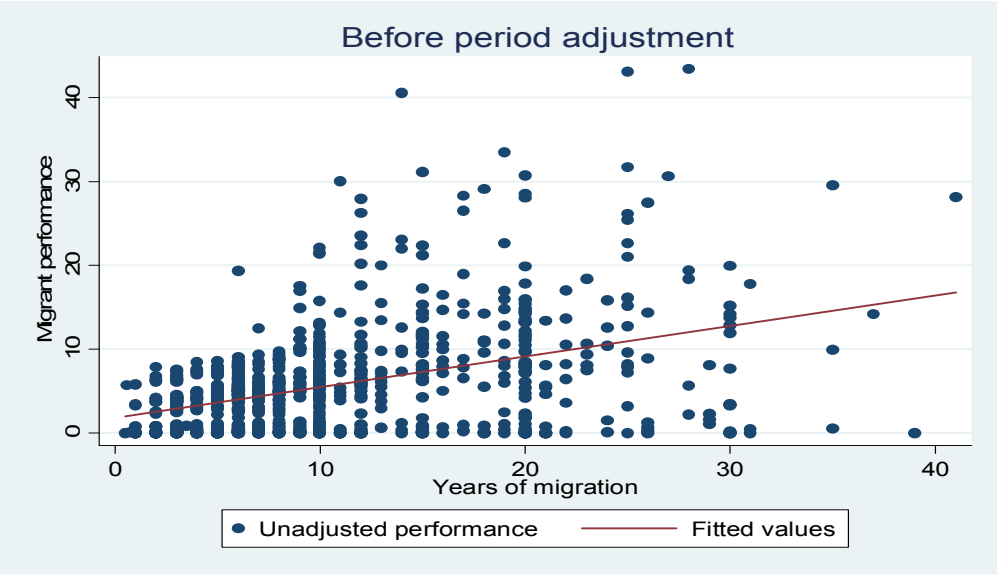
Expected Item	Average waiting period (Years)	Indicator	Weight (Q)
Money for living expenses	2	Amount sent	(Amount sent) ÷ 894
House	4.9	Yes (1) or No (0)	7(1, 0)
Business	6.2	Yes (1) or No (0)	5(1, 0)

To measure flow of remittance over the years a specification given in equation (1) is used. Let Rmt_t represent the total evaluation of migrant's remittance flows (in terms of what he/she has done since migrating) for each family in origin country during time period *t*. And let $Q_{i,t}$ represent its *i*th component (i.e individual items received). The general relationship between Rmt_t and $Q_{i,t}$ is simply represented as

$$Rmt_{\mathrm{t}} = \left[\sum_{t=1}^{N}\sum_{i=1}^{n}\frac{Q_{i,t}}{(1+r)^{t}}\right] \qquad (1)$$

where *r* is the interest rate at the time of the survey and n= {*i*: 1, 2, 3}. Though equation (1) takes into account interest rate and the time period within which each of the items was achieved at home of origin, the estimates are very much biased by number of years of migration as Figure 4.4 clearly demonstrates. The fitted line shows rising values of migrant performance with increasing years of migration. The problem with Figure 4.4 is that one cannot compare performance of migrants across households as households have migrants with varying periods of being away.

Figure 4.4 Relationship between unadjusted migrant performance (remittance flow) and years of migration

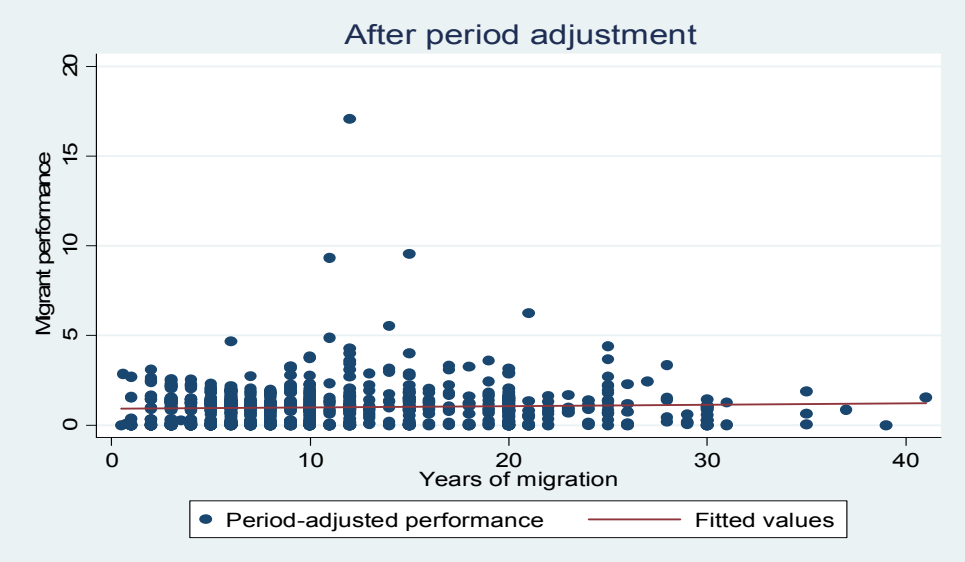


To enable comparison of performance across households, total remittance flows are adjusted by the number of years the migrant has been abroad. Migrant performance at home of origin is therefore measured with the following specification:

$$\text{perf}_t = \frac{1}{m}\left[\sum_{t=1}^{N}\sum_{i=1}^{n}\frac{Q_{i,t}}{(1+r)^t}\right] \qquad (2)$$

where *perf* is performance of migrant at home of origin and *m,* number years since the migrant has been abroad. With this period adjustment, the effect of years of migration is neutralised as shown by Figure 4.5. The fitted line does not vary with years of migration.

Figure 4.5 Relationship between adjusted migrant performance and years of migration using scatter plot with a fitted line



The adjusted migrant performance index ranges from 0 to 17.4 with a mean of 0.972 and standard deviation of 1.088. Thus the distribution shows some level of skewness to the left, and therefore there will be a need for some transformation in before the regression techniques are applied. Appendix 4C gives the detailed descriptive statistics. Table 4.4 gives a simple demonstration of the relationship between migrant performance and the components that constitute this performance. The table gives average values of migrant performance across different quintiles of household wealth - poorest to the richest. Across

all the categories of wealth the differences in average number of migrants are not that much. However the table clearly shows that even though wealthier households (4th and 5th quintiles) receive much more remittance flows than the poor counterparts, there is no commensurate difference in performance. For instance, even though households in the second quintile receive about 16% more items than those in the first quintile, the percentage difference in performance between the two groups (first and second quintiles) is more than double (33%) in favour of the former. And this is mainly because households in the second quintile have got migrants who take less time period to accomplish than their colleagues in the first-quintile families. In Chapter Six we will investigate, in details, the factors that influence levels of migrant performance at home of origin.

Table 4.4: Relationship between migrant performance and its components

Wealth Quintiles	Average no. of migrants	Average no. of items	Average years of migration	Performance
1st quintile	1.46	1.67	10.14	0.69
2nd quintile	1.59	1.94	9.90	0.92
3rd quintile	1.55	1.92	9.10	0.87
4th quintile	1.81	2.10	9.83	1.00
5th quintile	1.97	2.48	12.02	1.30
All	1.69	2.04	10.26	0.97

4.2.4 Computing information index

Apart from past event current information flow is another important variable in formation of expectations; Current and adequate information is likely to give some reality check on the expectations that people have. Hence we need to understand how it is operationalised in the study.

Given that different factors are likely to affect information flow and hence the level of knowledge of those left behind about their migrant relations, a simple question of asking households to rate their knowledge of socioeconomic conditions of the migrant relations would not be technically appropriate. This is the case firstly because respondents do not necessarily use the same frame of reference when answering such ordinal questions. For example, the elderly may use a different frame of reference than the young when assessing

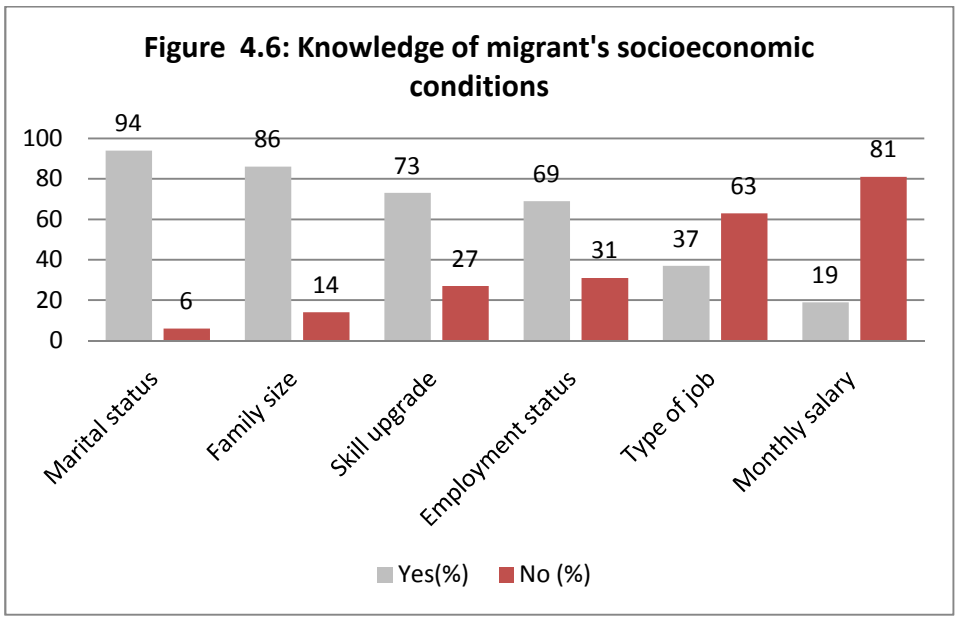
or rating their level of knowledge about the migrants. Secondly, some factors can cause respondents to employ different thresholds when describing their knowledge levels. For instance the more educated may have different threshold from the less educated household heads. In addition, some households may be more modest than others in describing their levels of knowledge. For these reasons and to arrive at a more standardised measure of knowledge (or information) about migrants, an index is computed using access to various pieces of information items about the migrant's socioeconomic conditions in the host country as indicated in Table 4.5. That is they were asked to indicate whether or not they currently have knowledge about the following socioeconomic conditions of the migrants: current or additional educational attainment since the migrant left Ghana, size of migrant's family abroad, current employment status of the migrant, type of job and salary. These

Table 4.5 Information items for construction of knowledge/information index

No.	Information Item	Response
1	Migrant has attained more qualification	Yes =1 / No=0
2	Marital status of migrant	Yes =1 / No=0
3	Size of migrant's family abroad	Yes =1 / No=0
4	Employment status	Yes =1 / No=0
5	Type of job	Yes =1 / No=0
6	Salary	Yes =1 / No=0

information items were chosen because current knowledge of each of them as well as combinations of any of them is likely to impact on people's expectations of remittance flows and consequent intention to support future migration. For example, having current knowledge that the migrant's salary is high can bias expectation levels to be high, but if the household also knows the big size of the migrant's family, the high expectations may be moderated. Because of the sensitivity of some of these pieces of information, respondents were encouraged to state "yes" or "no" without giving further details. Perhaps knowledge of some of these information items (salary, for instance) may influence remittance expectation levels more than others (attainment of more qualification), and hence should carry more weight. But given that getting figures on wages was not only too sensitive an exercise, but also unreliable as most households have little or no knowledge about how much the migrant earns, I take these items as having the same weights. Figure 4.6 below shows various levels of information or knowledge about these conditions. Of the 1590 individual migrants, about

94% of them disclose their marital status to the family relations left in Ghana. Other social status information like size of family and skill upgrade also score very high. But when it comes to the economic issues there is a significant decrease in number of migrants letting their relations back home know how they are doing, confirming the findings of Diko and Tipple (1992), Peil (1995), Owusu (2000) and McKenzie (2007). For example, only 37% of migrants tell their relations the type of job they are engaged in the destination country, while only 19% do so about their salaries. Migrants do not disclose their conditions especially the type of job as most of them work in areas that are deemed downgrading at home of origin. Those who score high on the index are the families that have access to crucial information such as type of work and salary.

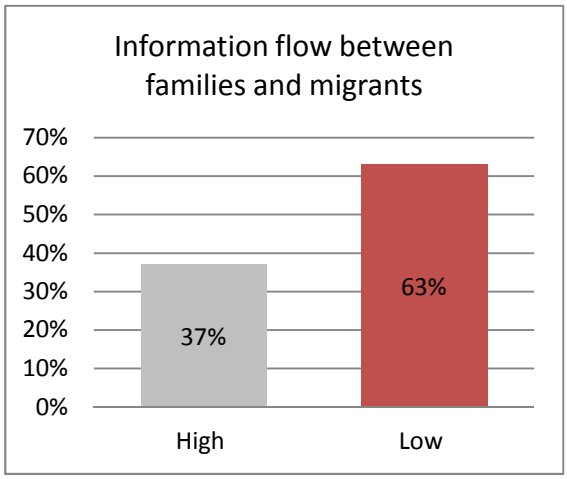


The responses for all the items for each migrant related to the household were summed and divided by the total number of migrants related to the household. So, for example, if a household answers 'yes' to all the information items for each of say five migrant relations, the household would have the maximum score of 6 (30/5) representing a very good knowledge of the migrant's socioeconomic conditions. But if the households has full information on four of its migrants and only three items for the fifth migrant, the household scores 5.4 (27/5). Conversely, if the household does not have current knowledge of any of these items about the migrant, it scores zero. Thus the score ranges from zero to six. The mean score for the 943 household is 3.85 with a standard deviation of 1.14 and a highest

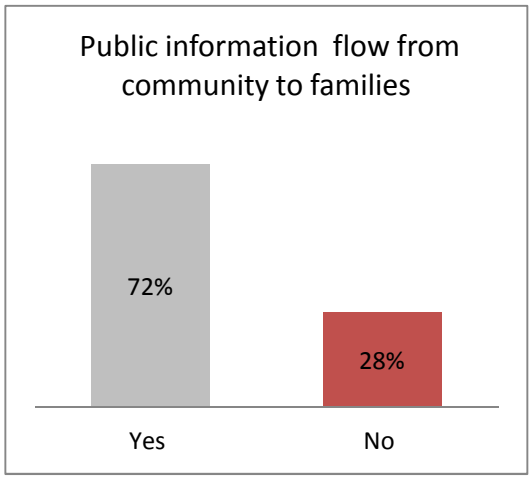
score of six. As shown in Appendix 4A, there is a very good level of internal consistency with Cronbach's alpha measure of 0.82 indicating that the index is good to be used. The eigenvalue of the first factor is quite larger (more than thrice) than the second factor, and it accounts for almost 86% of the total variance. This show a very high unidimensionality within the items used. Appendix 4D gives detailed descriptive statistics of the information flow index.

There is no index computation for access to general information flow. Families were asked whether or not they access information about their migrant relations from other sources such as non-migrant friends and relations living in the community of origin. Figures 4.7a and 4.7b show that most of the households (63%) have low or poor knowledge about the socioeconomic conditions of their migrant relations. These are households that score four or less on the index scale. They usually have information on the marital status, family size, whether or not the migrant has attained some qualification since he or she left for abroad and some employment status of the migrant. On the other hand families that have high or good information about the migrants, score more than four on the scale. In addition to the general social conditions most of these families also have crucial economic information on the type of work and salary of their migrant relations. In addition to the private information flow

Figure 4.7a: Access to private information



4.7b: Access to Public information



from migrants, a good number of the families (72%) source their information about migrants from friends and relations living in the same community or in Ghana. This is not surprising

as such information is not as expensive as the one from the migrants themselves. As we saw in the background information in Chapter One, families at home of origin gather this type of information mostly through social meetings such as funeral celebrations, church services or family visits in the country. They do not have to make expensive international phone calls.

As Table 4.6 shows, access to the two sources of information is not mutually exclusive. That is there are families that access both sources of information. The chi-square test shows no statistically significant interaction between families that access private and public sources of information flow. One might expect households which have very little information from migrant would significantly opt for general information, but that is not the case. As Table 4.6 shows, we have most of the households with low (70%) and high (74%) access to private information flow are also found to be having public information about their migrant relations.

Table 4.6: Access to private and public information about migrants

	Dedicated private information	
General public Information	Low	High
Yes	419 (70%)	256 (74%)
No	178 (30%)	90 (26%)
Total (no=943)	597 (100)	346 (100)

Pearson chi2(1) = 1.5583 Pr = 0.212

4.2.5 Measuring remittance expectations

Even though subjective expectations seem to be common phenomena in our lives, measuring them statistically can be complicated. Since it is relatively a new area of study, we still do not have globally tested and acceptable approach for measuring subjective expectations, let alone subjective remittance expectations. Likert scales have been used and continue to be used in many attitudinal researches by social scientists including migration studies to measure or assess subjective expectations of likelihood of an events occurring (Gill and Reynold, 1999; Gao and Smith, 2010). As Dominitz and Manski (1997; Manski, 2004) have noted, there are some limitations to this method. It is difficult to do comparative analyses with such value-laden responses since each individual or household has different interpretations of terms such as “very likely” or “very unlikely”, “strongly likely”, “highly likely”, “highly unlikely” etc. Also statistically, such qualitative expectation measures limit

the amount of information one can get from the analyses (McKenzie et al, 2007; Delavande et al, 2010).

What-do-you-expect questions have also been used in many studies to measure expectations. Though simple and easy to answer, they are problematic because it is difficult to assess the quantity respondents specify (Delavande et al, 2010). One is not sure whether the responses being given are mean, mode, minimum or maximum quantities. Bearing these drawbacks, McKenzie et al (2007) followed Manski's subjective probabilistic expectation method by asking potential migrants from Tonga to state their levels of percentage chance of getting employment in the destination country – New Zealand. These elicitations area said to have the advantage of being measured on numeric scale in which responses can be interpreted as probabilities. There has been an increasing use of this approach in recent years among cognitive psychologists and economists (Delavande and Kohler, 2009; Zafar, 2009; Attanasio and Kaufmann, 2009; Delavade et al, 2010; Braykov, 2010). This approach is said to be able to minimize the problem of overconfidence as respondents are not inclined to focus so much on central tendencies and ignore uncertainties of outcomes (Dominitz and Manski (1997). And though it may seem complicated for illiterate populations, elicited probabilistic expectations have been argued strongly, with examples from Malawi, Colombia and India, by Delavande et al (2010) that the basic principle of probability is not difficult for illiterates to grasp. They advise that the researcher has to devise a means to depict the probability concept.

However, there is still no conclusion on which of these methods should be the dominant one as the literature is not rich with various comparative studies of these methods in various settings. What is important though is for the researcher to take into consideration, the context within which the study is being conducted. Delavande et al (2010) rightly suggest that an assessment of the general education level of the respondents and interviewers with a pilot study has to be done before an appropriate technique can be employed.

In this study, attempts were made to elicit subjective probability of remittance flows in the pilot phase. I followed the approach used by McKenzie et al (2007) in the tradition of Manski (2004). That is respondents were asked to indicate various percentage chances of getting the things they expect from their migrant relatives staying abroad. The items were limited to the three most popular ones: annual amount of money for living expenses

including school fees and healthcare, business venture and establishment of a house (see Diko & Tipple, 1992; Adams, 2005; 2006; Brown & Leeves, 2007; Mazzucato, 2009). This approach did not go well with many respondents leading to poor response rate for that section of the questionnaire (45%). Respondents found it a bit cumbersome. At first I thought the problem was interviewers' inability to execute the exercise as explained to them. So a special session was organised to retrain interviewers on how to carry out this particular session of the exercise. The response rate was still poor for that session. The general comment from most of them was that they know migrant relations must provide these things, because "that is the way it is done here." There was some sense of impatience among the respondents about repeating the same question several times with different percentage chances. In spite of their apparent expression of certainty, though, respondents indicated that the time they expect to get these things may differ in accordance with the item.

Hence in the second attempt the probabilistic elicitation of expectations expressed in the form of percentage points or chance was dropped. Respondents were, in the second attempt, asked to express their certainty or uncertainty about the probability of getting the items in time periods. The head of the family or the person whom the family designates is asked the number of these items that they expect the migrant to send and the time within which it should be accomplished. Specifically they were asked to state whether or not they expect the migrant relative to send money for living expenses, build a house, and/or establish business, and the time for each of these items. People at home of origin do have different time period within which they expect their migrant relatives to meet their expectations. As Vishwanath (1991) rightly points out, migrant relations left behind have expectations that are not independent of time. Through observation of achievements of neighbours or migrant relations, people do have a rough idea of what migrants have been doing within specific period. Their expectations of migrant performance are always described or given with reference to what other migrants have done within some period.

A possible problem associated with estimating expectations from this point of view is that expectations may be heavily influenced by past events, as it seems it is the past performance of migrants that becomes the reference point. Whether or not people are influenced by past experience in the formation of their expectation levels will be discussed in Chapter Seven. For now it makes sense to view remittance expectations in this way, especially in the case of

second-order expectations since people are not directly involved in or do not know much about the acquisition of the expected items; they can only make reference to past trends. It also makes sense that people at home would express their expectations in terms of time as this would propel them to take action, for example support for future migration. People expect to get certain things within a certain period, which is usually shorter they would otherwise realise without migration, and this makes them participate in migration process. For if there is no time difference between staying at home and migrating in acquisition of these items, people may find very little incentives or motivation to engage in migration, all things being equal. Following this line of thought elicitation of expectations of these three items are weighted by the time period within which people at home of origin will want to realise the expected items, taking into account the relative value of the items and the discount rates. In order to avoid the problem of ambiguity in time period stated by respondents, interviewers were asked to emphasize on mean period of time that people are willing to wait to realise, at least, some of the expected items. For example if the family expects the migrant relative to build a house, the question is when, on average, the family expects the migrant to finish the building after migrating. In this way, interpersonal comparison, which is difficult to obtain with Likert scale, can be achieved with this approach. That is by measuring expectations as weighted product of items expected and the time period within which they are expected to be done, we achieve a comparable measure that is equally understood by individuals as all of them have the same understanding of time in years. Also with the emphasis on mean amount of money and time, the ambiguity surrounding quantity in what-do-you-expect questions is reduced. And since households left behind have to rely on the migrant's commitment to a loosely monitored contractual agreement between them and the migrants, the time within which they hope to get the things becomes the best way they express their expectations. Those who are not very certain may give migrants many more years to realise their expectations. I must, however, admit that, in spite of the emphasis on mean, there would still be some level of ambiguity as to whether or not respondents really refer to the mean when asked to state the average time within which they expect the items to be accomplished. Perhaps a study that combines this methods and that of probabilistic elicitations in the line of Manski, may give more insights about these issues of uncertainty and comparability of these measures. For the population I had to deal with, measuring expectations as a product of time and value of items expected works better in terms of response rate. The internal consistency with Cronbach's alpha measure of 0.62 is not that great, but with the first eigenvalue explaining about 65% of the variance, the

unidimensionality of the items is quite good. Hence it is fine to estimate the expectation index with these items.

From the sample the average amount people expect migrants to send is about GH¢2200 (US$1600) for living expenses which is roughly about one-third and half of what migrants generally send annually for building a house and opening business respectively (see Diko and Tipple, 1992; Orozco, 2007). Weighting of each expected item therefore takes the form expressed in Table 4.7 below.

Table 4.7: Weighting expected items

Expected Item	Average waiting period (Years)	Indicator	Weight
Money for living expenses	1.5	Amount expected	Amount expected ÷ 2200 (X)
House	3.7	Yes (1) or No (0)	3(1, 0)
Business	4.0	Yes (1) of No (0)	2(1, 0)

.

Taking the preceding discussion into consideration, remittance expectations of relation left behind are estimated with the specifications almost the same as the ones used for estimating migrant performance. Let *Exp* represent the value of total expected items of each household/family at home of origin and let $x_{i,t}$ represent its *i*th component (i.e each individual

item: money, house and/or business) at time *t*. The general relationship between *Exp* and $x_{i,t}$ can be stated as

$$Exp = \left[\sum_{t=1}^{N}\sum_{i=1}^{n}\frac{X_{i,t}}{(1+r)^t}\right] \qquad (3)$$

The total value of expectations in future of each family can therefore be expressed presently as

$$Exp_T = \left[\sum_{t=T}^{N}\sum_{i=1}^{n}\frac{X_{i,t}}{(1+r)^t}\right] \qquad (4)$$

where r is the interest rate and t is the waiting period (i.e. number of years people would allow for the realisation of their expectations and n= {i: 1, 2, 3}. This gives an index of expectation level for households that expect at least one of the items. The index ranges from 0 to 34.39, with a mean of 4.53 and standard deviation of 4.64. This clearly shows that values are heavily skewed to the left. Hence there will be a need for appropriate transformation before the regression analyses are done. See Appendix 4E for detailed descriptive statistics.

4.2.5.1 Internal and external validity of remittance expectation index

In addition using factor analysis and Cronbach's alpha to test for unidimensionality and internal consistency of the index there are few technical issues on selection bias, internal and external validity that I would like to address. One of the biases often raised about subjective expectations is the problem of cognitive dissonance. That is people might exaggerate their beliefs (expectations) in order to rationalise their choices. For example if a household has not received remittance from any of its migrant relations, that household might report that it is not interested in expectation of remittance flows. Thus households would have unfavourable changes in expectations when they have not received some remittances and largely favourable changes in expectations when they have received some remittances. This may lead to some sort of endogenous relationship between past receipts and future expectations, kind of overly adaptive subjective expectations. A problem of this nature is overcome by the design of the questionnaire. All questions about remittance expectations come before those of past receipts were asked. In this way the effect of cognitive dissonance is either eliminated or minimised. As demonstrated in Table 4.8, 86 (10%) of the households that have received some flow of remittances in the past do not expect anything from migrants; and these households actually form the bulk (about 75%) of households that do not expect anything. Also about 65% (53) of households that did not receive anything do expect something from migrants in the future. If there is a serious problem of cognitive dissonance we would find most of the households that expect nothing to have received nothing. This is in line with the work of Zafar (2010) who also did not find any serious changes in beliefs across various observed outcomes of students' preferences.

Table 4.8: Status of Household expectation status and past receipts of remittances

	Expect something	Expect nothing
Received nothing in the past	53	29
Received something in the past	771	86
Total	824	115

Another problem that has been levelled against elicitation of subjective expectations is that respondents do not exercise serious mental effort in stating their beliefs (expectations). That is people just say anything that comes to mind. One of the ways of testing this is to align subjective data with that of observed choices. Even though it must be stressed that subjective data are not accurate in the sense of being the same as the observed choices, in order to be valid or useful, we would expect that households would draw some inferences about their expected times from what their observations of their own past experiences of remittance receipts or from what they see migrant do for other households. If the expected flow lines well with observed flow, then it means individuals exert some considerable mental effort in reporting their beliefs, and hence their expectations can be said to be well defined. There are two ways of testing this: comparing elicited expectations with future realisations and comparing elicited expectations with historical realisations. Following Bruin de Bruin et al (2000), Hurd and McGarry (2002) and Zafar (2010), I apply the second method. As shown in Table 4.9a & b the average time period within which families expect to start realising their expected items line up well with realised time. In the same way average observed remittance flow seems to line with the expected ones. Thus families left behind seem to have a fairly good idea about the differences in times within which these three items are realised at home of origin. This, in no way, refutes the argument that families do not reveal their true beliefs. It only shows that families left behind do have internally consistent and sensible responses to expectation questions. Thus they exercise some mental effort to respond to these questions. Their expectations can therefore be deemed well defined.

Table 4.9a: Comparing average expected and realised items

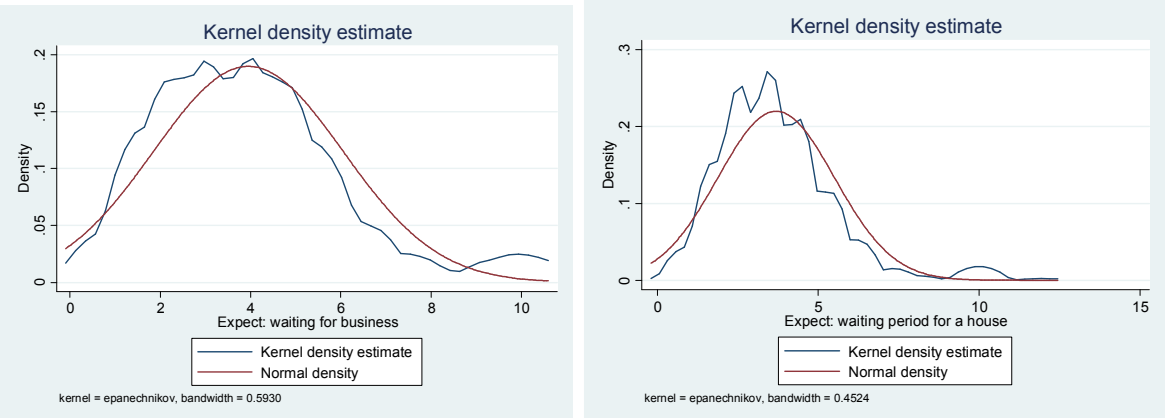
	Expected time (years)	Past realised time (Years)
Money for living expenses	1.5	2
Investment in housing	3.7	4
Investment in business	4	6
Total	3.1	4.0

Table 4.9b: Comparing average expected and realised items

Household wealth quintile	Observed remittance receipts (index)	Expected remittance receipts (index)
Poorest	0.688	1.740
Poor	0.913	1.742
Middle	0.875	1.832
Rich	1.005	1.741
Richest	1.308	2.065
Total	0.972	1.826

It has also been argued that subjective expectations usually involve respondents giving socially acceptable answers especially in the face-to-face interviews so as not to look bad in front of interviewers. If this were the case in the sample, we would find a seriously skewed information as families would either give short time to boast of how well their migrants may be doing or give long time period to avoid being viewed as too demanding. From Figure 4.8 below the kernel density estimates show that the distribution of time is fairly normal, giving no serious suspicion of socially-correct responses.

Fig. 4.8 : Kernel density estimates for expected items: business and housing investment



4.3 Analytical techniques

Having operationalised key concepts in the study, I now turn to the main statistical models that are used to investigate or test the hypotheses to achieve the four main objectives as enumerated in Chapter One.

4.3.1 Model specifications for migrant performance

Before I test the first hypothesis of whether or not remittance flow leads to high levels of information flow, we need to investigate the main determinants of remittance flow, especially as measured in this study as migrant performance adjusted to years of migration. I use two models to estimate determinants of remittance flow and migrant performance. The first is a *probit* model to estimate the probability of household receiving each of the three items used to compute migrant performance index. The second model employs Heckman (1979) selection technique to estimate determinants of migrant performance at home of origin. In both cases the main interest is to know the effects of kinship ties controlling for other socioeconomic factors. Thus in the first part I estimate a *probit,* modelling the probability that a family's receipt of remittance (*Rec)* as a function of kinship ties and other socioeconomic factors characterising the household. This gives us the following model:

$$Pr\,(Rec = 1 \mid Kin_i) = \Phi(\beta_0 + \beta_{1i} Kin_i + \beta_{2i} h_i) \qquad (5)$$

where Kin_i is the kinship ties, h_i represents various socioeconomic characteristics of the family, $\Phi(.)$ is the standard normal density function and β are the parameters to be estimated. In addition to estimating the general probability of receiving something, the model is run again for each of the three items.

The second model fits OLS regression to estimate effects of kinship ties on migrant performance (as computed in Equation 2), controlling for various socioeconomic characteristics of the household. Because of the multiplicative effects emerging from the relationship between items received and the corresponding weight attached (time period), there is a resultant skewed distribution of total migrant performance as observed in Equation 4. Hence, following Limpert et al (2001), total migrant performance is transformed using square root transformation to gain symmetrical distribution in order to achieve properties of normal distribution. This improves the distribution as the distance of various points of observations are much closer to the median. See Appendix 4F for the differences in the basic statistics of the performance variable before and after the square root transformation. The OLS model is specified in equation (6) below.

$$perf_t = \sqrt{\frac{1}{m}\left[\sum_{t=1}^{N}\sum_{i=1}^{n}\frac{Q_{i,t}}{(1+r)^t}\right]} = Kin + h + \varepsilon \qquad (6)$$

where *m* is the number of years the migrant has been away, *Kin* represents kinship ties and *h* is the various demographic and socioeconomic characteristics of the household at home of origin. The middle part of the equation basically represents the performance index as estimated in equation (1).

Running ordinary least square (OLS) regression might bias the estimates because of the suspicion that families that have received at least one of the three items might be a select group from the whole population of migrant families. Migrant performance is only estimated for families that have observed at least one of the three items, and not those who have none. That is there might be a factor that systematically or uniquely identifies families that have had some level of observed performance from migrants. Some scholars have found selective mechanisms in various migration studies both in Ghana and elsewhere (Adams, 2005; Adams, 2006; Taylor and Mora, 2006). But in all these studies the systematic difference has been significantly established only between migrant and non-migrant households. Studies which involve only migrant households do not report of any empirical findings on selections bias. I do however suspect that households that have had migrants performing are systematically different from those who have not. It is difficult, however, to get a variable that uniquely identifies families that have migrants performing in the community as factors that affect remittance flow are most likely to be the ones that also affect migrant performance. The factor that could possibly generate this systematic difference is the general attitude towards migration. In other words, those who have higher or lower attitude towards migration may influence receipt of some form of remittance as, for example, higher positive attitudes could make households support migrant relations. This support, be it moral or otherwise, could influence the migrant to send some form of remittance.

The reduced form of the Heckman model is given as follows:

$$Perf_i = \boldsymbol{\beta}\mathbf{X}_i + \varepsilon_i \qquad (7)$$

where $Perf_i$ is the migrant performance at home, $\mathbf{X}_i$ observed variables relating to the i'th household's kinship ties and other socioeconomic characteristics, and ε_i is an error term. *Perf* is observed only for households who receive at least one of the items constituting remittances. The second equation relating to performance is

$$R_i^* = \boldsymbol{\beta}_4 Z_i + u_i \qquad (8)$$

$$R_i = 1 \quad if \ R_i^* > 0 \ \ and \ R_i = 0 \ if \ R_i^* \leq 0 \ \ R$$

In essence the selection equation is a *probit* in the form $\Pr(R_i = 1) = \Phi(\boldsymbol{\beta}_i Z_i)$ where R* is a latent variable indicating the utility from receipts of remittance, We observe only R_i as an indicator for status of remittance receipts (received=1, did not receive=0), Z_i denotes the determinants of remittance status, $\boldsymbol{\beta}$ is a vector of associated parameter estimates, and u_i is an error term having a standard normal distribution. The assumption is that both error terms of equations (7) and (8) are normally distributed with mean zero, and that the error terms are independent of both sets of explanatory variables of the two equations. After estimating $\boldsymbol{\beta}$ using the *probit* maximum likelihood method, the second stage (Equation 8) involves estimating OLS regression of levels of migrant performance conditional on R = 1. This second stage regression appends the inverse Mills ratio (IMR) calculated from the linear predictions of the *probit* model as an additional explanatory variable. A significant coefficient of IMR, shown by *rho*, indicates the presence of sample selection bias. The basic assumption of all these models is that, just like observed remittance flows, performance of migrant at home of origin is due to contractual agreement between the migrant and those left behind. This model will help us to explain the determinants of migrant performance at home, and this explanation will help us to understand the second part of Chapter Six where I determine the effect of remittance flow on information flow.

4.3.2 Model specifications for information flow

I use two models to investigate the effect of migrant performance or remittance flow on information flow. The first model employs the instrumental variable (I.V) technique to estimate impact of remittance flow on private and public information flow respectively. In the second model I determine the factors that can help families to move from lower to higher levels of private information flow.

4.3.2.1 Instrumental variable (IV) techniques

As discussed earlier it is assumed that remittance flow simultaneously go with information flow since migrant would have to communicate with relations during these transfers. Thus there is a suspicion of endogenous relationship between migrant performance or remittance flow and information flow, because the very factors that determine remittance flow are also likely to be the ones that determine information flow. The literature has often depended on instrumental variable (IV) technique to overcome such endogeneity and selection bias problems. Hence I use instrumental variable (IV) technique to determine the impact of remittance flow or migrant performance on both private/dedicated and public/general information. IV models are conceptualized as two separate equations: one specifies the relationship between the key independent variable (remittance flow) and the outcome (information flow), the second specifies the relationship between the instrumental variable (Attitude) and the outcome. The model is given below

$$Info = Rmt'B_1 + X_1'B_2 + e_1 \qquad (9.1)$$

$$Rmt' = X_1'B3 + Att'B_4 + e_2 \qquad (9.2)$$

where *Info* is the private or public information; *Rmt'* is the key independent variable measuring observed remittance flow; *Att* is the instrumental variable of attitude ; X_1 is a vector of other control variables; B_1, B_2, B_3, and B_4 are parameters to be estimated; and e_1 and e_2 are error terms. As stated earlier, general attitude or perception towards migration may influence remittance flow, but its effect on information flow is theoretically weak unless it does so through the flow of remittances. For the private information flow two-staged least square (2SLS) is used. It has been argued that using the two-stage least square (2SLS) in case of a binary dependent outcome and endogenous variable might lead to inconsistent estimates, hence it is suggested that in such cases one should use generalised least square (GLS) estimates given under the *IV-probit* command in STATA (Newey, 1987). Hence the *IV-probit* model is used for estimating impact of remittance flow on public information flow. It is also advisable that one should always combine the p-value of the first equation as well as the *F-statistic* to gauge the appropriateness of the instrument used. An *F-statistic* which is below 10 is considered to be a cause for concern (Staiger and Stock, 199, p. 557, cited in Baum et al, 2002). The *F-statistic* of 18.74 clearly shows the instrument used for the model is not weak. The test for the other IV model assumptions given in Appendix 4G shows that the equation is clearly identified and the instrument is appropriate. In

addition to the IV techniques, estimates from simple OLS and *probit* models are also produced for comparatives purposes.

4.3.2.2 The generalised ordered *logit* model for estimating levels of information

The kernel density plot (see Appendix 4H) with normal curve shows that the distribution of the private information index has four distinct peaks. Thus the index has yielded a semi-continuous variable with ordinal characteristics. I allow the data to be grouped naturally along the four distinct peaks yielding four main categories and then apply ordered *logit* model to estimate the likelihood of a family getting more and more private information from a migrant relation. The main advantage of using this model for a problem of this nature is that with its characteristic feature or assumption of an unobserved continuous variable that gets collapsed into some number of categories of observed response, the model is able to combine both linear and categorical techniques. Also since the interest at this stage is mainly to know the effects of observed flow of remittances and kinship types on the probability or the likelihood of household getting higher or lower levels of information flow, this model serves this interest much better than what OLS would do. Level of private information flow from migrants is grouped into four categories using the values of the information index as category cutpoints for the four quintiles. From the first (lowest) to the fourth (highest) quantiles are respectively labelled "Very low", "Low", "High" and "Very high" levels of information flows.

Table 4.10 gives the descriptive statistics of the groups. Information flow or level of knowledge of families left behind is given in hierarchical ordinal structure, from those who know very little to those who have good knowledge about the socioeconomic conditions of

Table 4.10: Descriptive statistics of information flow quintiles

	Obs.	Percent	Mean	Std. dev	Min	Max
Very low	319	34	2.55	0.63	0.00	3.00
Low	278	29	3.87	0.23	3.17	4.00
High	298	32	4.92	0.19	4.17	5.00
Very high	48	5	5.80	0.28	5.20	6.00
Total	943	100	3.85	1.14	0.00	6.00

the migrant. In order to control for other factors and ascertain the findings emerging from the descriptive analysis, given the structure of the data, ordered *logit* model or what is sometimes called the proportional odds model is used. The basic assumption is that there is observed ordinal variable information flow, *Y,* which is a function of an unobserved latent continuous variable *Y** that determines the values of the observed *Y*. The values of *Y* depend on whether or not a certain threshold (cutpoint) has been crossed. With M = 4 (categories), the values of *Y* are

$$\begin{aligned} &Y_i = 1 \text{ if } Y^*_i \leq j_1 \\ &Y_i = 2 \text{ if } j_1 \leq Y^*_i \leq j_2 \\ &Y_i = 3 \text{ if } j_2 \leq Y^*_i \leq j_3 \\ &Y_i = 4 \text{ if } Y^*_i \geq j_3 \end{aligned} \tag{10}$$

where Y_i is the observed category of level of information flow, Y^* is the unobserved continuous variable of information flow, j_i thresholds and *M* is the number of categories of the ordinal dependent variable. The relationship between the latent unobserved Y^* and other factors is given as follows:

$$Y^* = \sum_{j=1}^{j} \beta X_{ji} + \varepsilon_i = Z_i + \varepsilon \tag{11}$$

The ordered *logit* (*ologit*) model estimates part of Equation (11) as

$$Z_i = \sum_{j=1}^{j} \beta_{kj} X_{ji} + \varepsilon_i = E(Y^* i) \tag{12}$$

where *Z* is a measure of Y^*, X is a vector of factors influencing level of information flow, β the associated coefficients to be estimated and ε the error term, where the error has the standard logistic distribution. The probability of a household having a higher or lower level of information from the migrant can also be expressed as a totally constrained generalized ordered *logit (gologit*) model in the following form:

$$P(Y_i > j) = g(XB) = \frac{\exp(a_j + X_i\beta)}{1+[\exp(a_j + X_i\beta)]}, j = 1, 2, \ldots, M-1 \tag{13}$$

where g is the *logit* link function and every other notation remains as defined before. With the change in cumulative probability from one level of information flow to another deemed to be a gradual process the choice of the *logit* function is more appropriate (Norusis, 2004, P.84). Equation (13) is equivalent to the ordered *logit* (*ologit*) model given in Equation (12), which assumes that the *betas* are the same for all values of j. This is what is sometimes referred to as proportional odds assumption or parallel regression assumption (Long and Freese, 2006). That is the *ologit* model does not allow for the fact that the thresholds or cut points may vary depending on the characteristics of the families involved in the quest for information about the migrants. In other words, coefficients for each group of independent variable are the same. This is unrealistic because differences in factors such as household average level of education and experience in migration may result in different thresholds for different families. The totally unconstrained version of *gologit* (Equation 14), which allows all *betas* and *alphas* to vary, may also not be tenable due to the fact that some of the values of j could be the same (constant) for all categories.

$$P(Y_{\mathrm{i}} > j) = \mathrm{g}(XB) = \frac{\exp\,(a_j + X_i\beta_j)}{1+[\exp(a_j + X_i\beta_j)]}\,,\mathrm{j} = 1, 2, \ldots, \mathrm{M}-1 \qquad (14)$$

In order to know the appropriate version of the model for the data I conduct the Wald test for parallel assumption (see Appendix 4I). This test result is useful as it suggests the variables that are likely to have different coefficient at various categories. The result shows that four variables strongly violate the parallel assumptions: past performance of migrant, household level of education, kinship ties such as brother or sister and the family's general attitude towards migration. This indicates that the model should be estimated by a generalized ordered *logit* (*gologit2*) model as both the totally constrained and unconstrained models of *gologit2* are not the best in fitting the model as explained earlier. Hence I use the partially constrained model with gamma option, because, generally, the proportional odds assumption does not hold for this model (Williams, 2006). The gamma option enables the model to keep all the coefficients that are not significantly different across the information categories constrained to be equal, and allows only the significantly unequal coefficients (here, coefficients for education, number of children under 15 years, years of migration and attitude towards migration) to vary**.** That is, using the partially constrained model helps in maintaining the assumption for all the covariates except for those variables that are strongly

found to be responsible for the violation of the assumption. The gamma option allows the alternative parameterisation which presents coefficients for the first model ($Y>1$) and then presents any deviations from that model as gamma coefficients. This also makes the model more parsimonious (*Ibid*). Equation (15) presents the final model. Some of the *betas* (those for *X1* and *X2*) are the same, but others (those for X_3) are allowed to vary.

$$P(Y_{\mathrm{i}} > j) = \frac{\exp(a_j + X1_i\beta1 + X2_i\beta2 + X3_i\beta3_j)}{1+[\exp(a_j + X_i\beta1 + X2_i\beta2 + X3_i\beta3_j)+]}, \mathrm{j} = 1, 2, \ldots, \mathrm{M}-1 \quad (15)$$

As stated earlier, X represents a vector of factors that determine the level of knowledge (information) about the socioeconomic conditions of migrants related to the family. It is difficult to come up with a theoretical justification to explain why these four variables violate the parallel assumptions, except to speculate that, for example, different levels of education may place households at different levels of access to private information, because highly educated households may have quite different way of accessing and processing information from the migrants. In the same way households that have a very positive attitude towards migration in general may also have quite different way of accessing and treating information. In absence of any tested theoretical justification, William (2006) suggests that an automatically fitted model with a "more stringent significance level" such as .01 should be applied. Hence I used 0.01 level of significance for the model. Predicted probabilities for each of the information flow categories are calculated from the generalised ordered *logit* (see Appendix 4J). It is found that the actual and predicted probabilities are quite similar, indicating a good measure of fit for the generalised ordered *logit* model.

The covariates (X_i) include different types of relationship with the migrant, wealth, average education level of household, years of migration etc. The strength of relationship with the migrant is expected to have positive relationship with the level of information flow as those who are much closer (eg. spouse, brother/sister or son/daughter) are expected to have stronger social and kinship bond at all quintiles, while distant relations such as friends are expected to have negative relationship especially at the higher levels (quintiles). The cost of getting information from the migrant can be expensive, especially as many migrants do not cooperate in information sharing (McKenzie, 2007). Hence accessibility to this information could be difficult. The ability of those left behind to access information about the migrants is measured by household characteristics such as wealth, average level of education, number of

household members who are over the age of 15 years and age of household head. Theoretically it should follow that the older the household head, the less the information flow because older migrant household heads would have migrants who are also older and hence are more likely to be integrated in the host nation as they may have been abroad for a longer time than migrants from younger households. Wealthy households should be able to contact the migrants through long distance calls to get information. The fact that they are wealthy may also make the migrant relations feel at ease to disclose their socioeconomic conditions as the former may not make too much demand from them. In the same way higher education level should also help households to gather information about the migrants at least through readings or the media. Larger families would have at least one of the members communicating with the migrant. With time migrants are found to be integrated into the culture of the host nation. This is because migrants that have been abroad for a long time are said to be more integrated in the culture and society of the destination country. Or they may have brought their close relations to live with them. Therefore they would not have any strong sense of obligation to share lots of information about themselves with the rest of the relations who may be distant kins. The number of years since the migrant has been away is used as a measure of migrant level of integration assuming that the longer the stay the more integrated the migrant is in the destination country. The test for multicollinearity given in Appendix 4K does not show any collinearity among the independent variables.

4.3.3 Estimating determinants of remittance expectations

The main test in Chapter Seven is that the effect of remittance expectations on intention to perpetuate migration at the household level will depend on the nature of how the expectations are formed. The argument is that when remittance expectations are mostly influenced by past event (i.e. past flow of remittances) expectations would have great effect, but when expectations are mostly influenced by private or dedicated information from the migrant, their effect on intention to perpetuate migration is heavily reduced. This means that we first have to know the main determinants of remittance expectations. The levels of subjective remittance expectations was estimated using the three key items of money sent, business and housing investment by migrants. We saw a detailed account of how this was computed with Equation 4 in Section 4.2.5 of this chapter. In Equation 16, subjective remittance expectation is modelled as a function of observed performance of migrants.

$$Exp_T = \sqrt{\left[\sum_{t=T}^{N}\sum_{i=1}^{n}\frac{X_{i,t}}{(1+r)^t}\right]} = Perf_{t-1} + \varepsilon \qquad (16)$$

where $Perf_{t-1}$ represents observed past performance of migrants, again as estimated in Equation 17. Adding the information index (*Info),* kinship ties (*Rel*) and household characteristics (*h*) to equation (16) gives us the final model in the following form:

$$Exp_T = \sqrt{\left[\sum_{t=T}^{N}\sum_{i=1}^{n}\frac{X_{i,t}}{(1+r)^t}\right]} = b_0 + b_1 Perf_{t-1} + b_2 Inf + b_3 h + b_4 Rel + \varepsilon \qquad (17)$$

where *Info* represents current private information available to the family at home of origin at the time of expectation decisions. In addition to the general estimates from equation (17), I also estimate equation (17) with interactions of private information with key variables such as kinship ties, public information and migrant performance. Thus equation (17) is modified a bit in the following manner.

$$Exp_T = \sqrt{\left[\sum_{t=T}^{N}\sum_{i=1}^{n}\frac{X_{i,t}}{(1+r)^t}\right]} = [b_0 + b_1 Perf_{t-1} + b_2 Inf + b_3 h + b_4 Rel] Info + \varepsilon \qquad (18)$$

where Exp_T is the levels of expectation index as estimated in Section 4.2.5, *h* and *Rel* are household characteristics and kinship ties with the migrant respectively, b_0, b_1, b_2, b_3 and b_4 are parameters to be estimated, $Info_i$ takes on the values of low and high levels of private information flows, *and* ε is the independent normally distributed error term with the variance of the mean equal to zero. The household covariates includes wealth, level of education, years of experience in migration, household size, age of household head and whether or not the household contributed significantly towards the movement of the migrant. Type of kinship ties is captured by categorical responses stating whether or not the migrant is a spouse, head, son, daughter, brother, etc as discussed in previous two chapters. Thus in response to the deficiency exhibited in adaptive models of expectations, this augmented model incorporates information on other variables that are assumed to influence the formation of expectations. The use of this additional information can help to offset the

tendency toward systematic prediction errors associated with 'excessive' influence of past events like performance of migrants (Curtin, 2003). Remittance expectations variable is skewed to the right due to the multiplicative effects from the index computation. Hence I use square root transformation to normalize it. See Appendix 4L for the distribution before and after the transformation.

4.3.3.1 Dealing with effect of selectivity

From the evidence presented in discussion of bias, internal and external validity in Section 4.2.5 we saw that people do not exaggerate their responses to expectation questions and that the responses are internally consistent. Hence one would not suspect sample selection bias in the data. Also the sample covers only migrant families so there might not be any concern for selectivity from the general population into migrant households. In addition the 117 (12.4%) of the total households sampled that do not expect anything clearly stated their choices. If these people had refused to answer the questions on expectations, then they could perhaps be treated as missing and hence a need to apply the selection bias model.

Nevertheless, some level of selection bias may still arise. Levels of remittance expectations as measured by Equation (16) will only refer to families that expect at least one item from migrants. If families that expect things are a select group from the whole population of migrant families, that situation could render biased estimates from a simple OLS model presented in equations (17) and (18). The biased estimates are likely to arise from the fact that certain factors – omitted from the model – may select families into the group of those that expect at least one of the items, but may not necessarily have any effect on the continuous choice of expectation levels as computed with equation (16). If these factors are not controlled, a simple OLS model may overestimate or underestimate the effects of factors that influence the choice of expectation levels. I therefore tested for omission of variables via the *ovtest* procedure given by Stata. The result form the test (see Appendix 4M) rejects the null hypothesis that the OLS procedure has no omitted variables. Hence, following the approach adopted by Atanacio and Kaufmann (2009), it would be important to simultaneously model the determinants of probability of expecting something or not and the continuous variable of remittance expectation levels. Heckman's sample selection model would be the appropriate technique to use in this case. A key advantage of this model is its ability to control for sample selection biases that could otherwise arise from the existence of

unobservable variables that determine both the discrete and continuous choices pertaining to remittance expectations respectively. Thus there are two regimes defined by one, whether or not the individual migrant household expect something from migrant relations, and two the level of these expectations once selected. In this way the model allows for the information from non-expecting families to be used to improve the estimates of the parameters in the regression model. The reduced form of the Heckman model is given as follows:

$$Exp_i = \boldsymbol{\beta}\mathbf{X}_i + \varepsilon_i \qquad (19a)$$

where Exp_i is the expectation level, $\mathbf{X}_i$ observed variables relating to migrant performance, information flow and *i*'th household's kinship ties and other socioeconomic characteristics, and ε_i is an error term. *Exp* is observed only for households who expect at least one of the three items. The second equation relating to expectations is

$$S_i^* = b_5 Z_i + u_i \qquad (19b)$$

$$S_i = 1 \quad \text{if } S_i^* > 0 \text{ and } S_i = 0 \text{ if } S_i^* \leq 0$$

Just as we saw in Chapter Six Equation (19b) is basically a *probit* in the form

$$\Pr(S_i = 1) = \Phi(\boldsymbol{\beta}_i Z_i)$$

where S^* is a latent variable indicating the utility from expectation, S_i is an indicator for expectation status (expect=1, do not expect=0), Z_i denotes the determinants of this status, b_5 is a vector of associated parameter estimates, and u_i is an error term having a standard normal distribution. After estimating b_4 using the *probit* maximum likelihood method, the second stage (equation 19b) involves estimating OLS regression of levels of remittance expectation conditional on $S = 1$. This second stage regression appends the inverse Mills ratio (IMR) calculated from the linear predictions of the *probit* model as an additional explanatory variable. A significant coefficient of IMR indicates the presence of sample selection bias.

One of the major conditions of Heckman selection model is to get at least one variable that uniquely identifies the discrete choice of remittance expectation status from continuous choice of remittance expectation levels. This presents a challenge in a study of this nature in which factors that affect people's expectation status are also most likely to affect the

expectation level. Attitude towards migration is chosen as unique identifier on the argument that having a good or bad attitude towards migration will determine the household's choice of whether or not to expect something from migration, but attitude towards migration may not affect continuous levels of expectations. This is because migration attitude may have very little to do with helping those left behind to know the socioeconomic conditions of the migrants – a knowledge that is important for gauging what to expect. Also unlike factors such as kinship ties, wealth and contribution to movement, attitude towards migration does draw very little responsive action from the migrant. Hence people left behind would not find attitudes helpful to determine their remittance expectation levels. This assumption was tested by including attitude in both the selection and outcome equations, and I found that attitude was highly significant in the discrete choice of expectations but insignificant in the continuous choice of remittance expectation levels (see Appendix 4N). In other words a good attitude, for example, would make the household expect something from migration, but when determining the level or quantity of the expected items households would not rely on their own attitude; they would most likely rely on factors such as kinship ties, past performance migration experience, etc, that are likely to generate some action or response between themselves and the migrants.

4.3.4 Determining effect of remittance expectations on intentions to perpetuate migration

Having estimated determinants of remittance expectations, we I turn to how these expectations influence migration intentions. I observe migration intention choices for the same individuals whose subjective expected returns of remittance were elicited. This allows me to model perpetuation of migration as a function of expected return to migration as well as other moments of the subjective probability distribution. In what follows, I model the decision of migrant families to support (or not) support other members to travel abroad. I use the subjective expectations data to study the extent to which these expectations affect intentions to perpetuate migration. Three models with maximum likelihood estimates are used to these effects. The first is a simple *probit* model to investigate the influence of remittance expectations on family's intention to continue migration process with support at least one of its members. The second is the use of *ordered probit* model to estimate the factors that influence the strength of this intention. And finally *multinomial logit* model is used to estimate the factors that differentiate the group of families that have positive

remittance expectations and desire to continue migration process from the other three groups: positive remittance expectations but no intention not to continue migration process; negative remittance expectations but desire to continue the migration process; and negative remittance expectations

4.3.4.1 *Probit* with Heckman selection model

Following Attansio and Kaufmann (2009), a *probit* function is used to model a family's decision or intention to support at least one member to migrate. The dependent variable for this exploratory model is derived from the question: Do you intend to send or support at least one member of your family to travel abroad in the next five years? The probability that y_i (intention to support) equals 1 (yes) is a function of a vector of explanatory variables represented by X_i. β is the vector of parameters which describe the probability that $y_i = 1$ given a change in X_i. If families that intend to support at least one member to migrate are a selection of those who expect to gain from migration then a simple *probit* might not be appropriate as it would not be able to account for selection bias. That is families that intend to perpetuate migration would only be a selection of those who have positive remittance expectations, in which case the *probit* model would not be able to control for the effect of this selectivity. In this case a technique such as Heckman selection model via STATA's *heckprob* procedure would be more appropriate.

The Heckman selection model has two regimes of equations. Equation (20a) , which is defined only if $Y_2 = 1$, describes the outcome of interest, that is the probability of supporting a member of the family to migrate:

$$Probit(Y_1=1 \mid X_1,) = X_1 \beta + U_1 \qquad Y_1 \text{ is observed only if } Y_2=1 \qquad (20a)$$

while equation (20b) describes the probability of experiencing the selecting event: whether or not the family expect something

$$Probit(Y_2=1 \mid X_2) = X_2 \eta + U_2 \qquad (20b)$$

The relationship between (20a) and (20b) could therefore be simply presented by the following rule

$$y_j = \begin{cases} 1 \; if y_j^* > 0 \\ 0 \; if \; y_j^* \leq 0 \end{cases} \quad (21)$$

For $j = 1, 2$ and $u_1 \sim N(0,1)$ $u_2 \sim N(0,1)$ $corr(u_1,u_2) = \rho$

where y_1 is the family migration-support status, x_1 vector of predictors, y_2 indicates whether or not the family expect something from migration, x_2 predictors of y_2, β and η are associated coefficients of (20a) and (20b) respectively, and u_1 and u_2 are the respective error terms assuming bivariate normal distribution. When $corr(u_1,u_2) = \rho = 0$, the errors of the two models are independent and there is no need for the Heckman *probit* model; the two *probit* models could just be estimated separately. Migrant performance will be used to identify the selection equation. As we saw in the previous chapter, migrant performance significantly determines remittance expectation status but it would affect intention to support migration of family members only through the expectation that the potential migrant will be able to remit. In presence of remittance expectations, past performance of migrants is not expected to make significant impacts on intention to perpetuate migration in the family. In other words past performance, per se, would not "induce" intentions to perpetuate migration as cumulative causation theory holds, but would have to interact with remittance expectations before this inducement can take place. Other covariates include migrant performance, private information flow between migrants and relations at home, kinship ties and other demographic and socioeconomic factors. I hypothesize that remittance expectation would have stronger effect on intention to support at least a member to migrate than any other socioeconomic factor only under the condition of low private information flow. It is also expected that general/public information flow will play important positive role in household's intention to continue the migration process. .

Other controlled factors include household socioeconomic and demographic factors that can either constrain or boost household migration intentions. These are general attitude towards migration, household wealth, age of household head, number of family members at home of origin aged between 15 and 35 years, the number of children (i.e, under the age of 15 years), and household average level of education as estimated in Chapter Three. These are factors that have been found in various studies to be positively associated with migration intentions (van Dalen et al, 2005; Wentzel et al, 2006; Avato 2008; Fourage and Ester, 2008). Years of migration experience is included as a measure of migration experience in the family. It is expected that families with long history of migration would have rich connections of

network that can enhance their migration intentions. Also following the theory of migration network, kinship ties are included as part of the control variables to see their effects on probability of perpetuating migration process within the household. The test for multicollinearity given in Appendix 4O does not show any problem.

4.3.4.2 Ordered *probit* model

Simple yes-or-no responses may not be strong measures of migration intentions and hence predictors of actual migration behaviour. It has therefore become a common practice in recent studies to combine the estimates from a *probit* model with a more robust measure of the strength or intensity of migration intentions people profess. Various techniques have been employed to this effect. Avato (2008), for example, developed an index based on a set of questions about date of movement, knowledge of destination, availability of funds, etc. He then categorised this index to depict increasing likelihood that people will actually move, and analysed it with ordered *probit* technique. Van Dalen et al (2005) on the other hand measured the strength of migration intentions with timeline for movement such as "within a year", "over a year", "unsure." Adding specifics such as time to intentions has been found to be more powerful in increasing the likelihood that the behaviours such as intentions to maintaining a healthy diet will actually be performed (Verplanken & Faes, 1999). This is because respondents do exercise some mental effort in stating their intended preferences and hence those who are not sure are more likely to state longer period. Since the main objective here is to measure the strength of intentions to support international migration from the household, I use the number of household/family members that are likely to be supported to emigrate within a specific time frame: the next five years. The assumption is that the more members the family is willing to support the stronger the family intends to perpetuate the migration process. The options were limited to five as shown in Table 4.11 below, coming from the 621 sample of households who intend to continue the migration process. As the table shows about two-thirds of the households who intend to perpetuate migration would only support just one member within the next five years, while about 37% of them would support two or three members. Options four and five were combined with three since there were too few observations, resulting in only three ordinal categories. As used by Avato and van Dalen, ordered *probit* could be an appropriate technique. However the parallel regression assumptions of coefficients, that underlines ordered *probit* or *logit* models, is

Table : 4.11 Intended number of potential migrants within five years .

Number of potential migrants	*Number of families*	*Percent*
1	379	61.0
2	161	25.9
3	69	11.1
4	8	1.3
5	4	0.6
Total	621	100

often violated. For example a Brant test done on ordered *logit* shows some of the variables violate this assumption even though the global test statistic of Prob > chi2 =0.147 is not significant at 95% level. The test shows the variables that are most likely to violate the parallel regression assumption are two of the variables measuring kinship ties with migrant: migrant is a spouse and migrant is either a brother or sister (see Appendix 4P). Hence a generalised ordered *probit* (*goprobit)* model is used with the specification given in equation (1).

$$Pr(S\_intent_{\mathrm{i}} > j) = p(XB) = \frac{\exp(a_j + X1_i\beta1 + X2_i\beta2 + X3_i\beta3_j)}{1+[\exp(a_j + X_i\beta1 + X2_i\beta2 + X3_i\beta3_j)+]}\ ,\mathrm{j} = 1, 2, \ldots, \mathrm{M}-1 \quad (22)$$

where *S_intent* is the dependent variable measuring the strength of migration intentions, *p* is the *probit* link function, *x* the covariates and β_i measures the associated coefficients, assuming the error has the standard logistic distribution. Equation (22) is partially constrained to allow for the assumption of parallel coefficients for all the covariates except for the ones that are strongly found to be responsible for the violation of the assumption. In this case some of the *Betas* or coefficients of the independent variables (those for X_1 and X_2) are the same, but others (those for X_3) are allowed to vary. These are the two of the variables measuring kinship ties with migrant: migrant is a spouse and migrant is either a brother or sister as observed from the Brant test. A further test for the appropriateness of the model is given in Appendix 4Q following the suggestion by Williams (2006). The summary statistics of the predicted probabilities are similar to the original sample showing that there is no negative in-sample predicted probabilities. The independent variables are the same as those given for the *probit* model, except for the additional explanatory information on whether or not the main financial contributor will be the migrant relation abroad when the intended migration actually takes place. This is because the step from intentions to behaviour may

require additional support from migrant relations as observed in other studies (Glick, 1999; Mazzucato, 2009).

4.3.4.3 Multinomial logistic model

It is expected that families that have positive remittance expectations about migration would at least have intention to send some of their members abroad. But this is not case. Not all families who have remittance expectations have the intention to perpetuate migration. Table 4.12 below shows families in four groups of expectation-migration-intention decision making processes. They are

1, a group of families that has both positive remittance expectations and intention to support at least one family member to migrate,
2. a group of families with positive remittance expectations but no intention to support any member of the family to migrate,
3. a group of families with intention to support a member to migrate, but no remittance expectations and
4. group of families with no remittance expectations and no intention to support migration of any member from the family.

Table 4.12 Four groups of expectation- migration-intention choices

	Intend to support migration of a family member (N= 943)	
Remittance expectations	Yes (%)	No (%)
Yes	I (89.9)	II (83.2)
No	III (10.1)	IV (16.8)
Total Number (%)	621 (65.9)	322 (34.1)

Pearson chi2(1) = 8.5644, Pr = 0.003

Even though over half of the respondents who have positive remittance expectations will also want to continue migration process in their families, about a third of them (34.1%) have no intention to support anybody to migrate. Among the families that have no intention to continue migration process, 83.2% of them do have positive remittance expectations, nevertheless. It is this group (II), that is of particular interest in this session of the chapter,

so more attention will be devoted to it. This decision-making process is modelled with multinomial logistic regression, taking group I as the reference or comparison category.

Letting y_i denote the decision mechanism of the four responses indexed 1, 2, 3, and 4, and picking 1 as the base category, the log-odds for other categories can be estimated relative to the reference or baseline category. The log-odds is estimated as linear function of the predictors given as $\Pr(y_i) = j$, which denotes the probability that i-th response falls in the j-th category. The model is specified in Equation (23).

$$Pr(y_i = j) = \frac{exp(X_i\beta_j)}{1+\sum_{j=2}^{J} exp(X_i\beta_j)} \qquad (23)$$

For the reference category,

$$Pr(y_i = 1) = \frac{1}{1+\sum_{j=2}^{J} exp(X_i\beta_j)}$$

where y_i represents individual categories of expectation-migration-intention choices, β_j is a vector of regression coefficients (for j=2,3,4) and J is the index for the baseline category, which is group 1 (positive remittance expectations and intention to support migration of a family member) in this case**.** X_i represents the covariates which are the same as the ones entered in equation (15). Multinomial logistic regression does not make any assumptions of normality, linearity, and homogeneity of variance for the independent variables. The major assumption of the multinomial *logit* model is that it is not appropriate if the alternative choices are close substitutes. That is if the four choices of expectation-migration-intentions are very close substitutes the model will not be appropriate. It is therefore advisable that before the multinomial *logit* model is used a test is run to indicate whether this problem exists. Following Garip (2006) a Hausman test is performed; and the result does not show any violation of this assumption (see Appendix 4R). There is no threat to the independence of irrelevant alternatives. This is not surprising given the fact that all the dependent variables exhausts all the possible choices. As we saw in Appendix 4K, the test for multicollinearity among the independent variables shows none of the variance inflation factor (VIF) is less than one, indicating absence of multicollinearity.

4.4 Variable Definitions

Tables 4.13 presents the main variables used in the estimations.

Table 4.13: Variable definitions		
Variable Name	**Definition**	**Type**
Remittance expectations	Level of remittance expectation as computed above	Continuous
Private information flow	Dedicated information from the migrant to those left behind	Continuous
Community dynamics		
Migrant performance	Migrant achievement at home in terms of investment in housing, business and how much he/se sends	Continuous
Public information flow	Migration information from the general public	Categorical
Kinship ties		
Migrant is head	Migrant is the head of the household but not resident	Categorical
Migrant is spouse	Migrant is a spouse of the household head	Categorical
Migrant is son/daughter	Migrant is a son/daughter to the household head	Categorical
Migrant is an in-law	Migrant is an in-law to the household head	Categorical
Migrant is brother/sister	Migrant is a brother or sister to the household head	Categorical
Migrant is other relation	Migrant is other relations to the household head	Categorical
Migrant is a friend	Migrant is a friend to the household	Categorical
Household characteristics		
Household wealth	Household wealth as measured by the wealth index	Continuous
HH level of education	Average level of education in the household	Continuous
Migration experience	Number of years the household has had migrant in the family	Continuous
Age of household head	Age of household head	Continuous
Age of hh hold head squared	Age of household head squared	Continuous
Household size	The number of people in the household who share resources together	Continuous
HH Contribution to movement	Whether or not household contributed financially to the movement	Categorical
Main decision maker	Whether or not the migrant was the main decision maker in the first move, or the household asked the migrant to move	Categorical
Attitude to migration	General attitudes toward migration in the household	Continuous

4.5 Limitations of the Study

A major limitation of the study is its inability to generate data to differentiate various types of expectations and hence difficulty in sorting out various forms of expectations all of which seem to be expressed in the remittance expectations. To do this requires massive collection of data which time and inadequate funds did not allow for such exercise. Perhaps in future

studies a more refined data can be collected to help us make distinctions between various types of expectations and how each type can influence migration decisions. As stated earlier, data on expectations are very rare in developing countries, especially in Africa. This study only lays down the foundation upon which larger scale and perhaps more refined information about different types of expectations can be formulated and collected.

CHAPTER FIVE

DEMOGRAPHIC AND SOCIOECONOMIC CHARACTERISTICS OF HOUSEHOLDS

5.1 Introduction

Having operationalised the concepts – migrant performance, information flow and expectations – in Chapter Four, I now turn to discuss the determinants of each of these in the next two chapters. Before then, we need to know household differ in their demographic and socioeconomic characteristics as regards the four key variables being considered in this study: Migrant performance (remittance flows), information flow, remittance expectations and intention to perpetuate migration. Two-tailed tests of difference in mean are performed in all the descriptive statistics to find where significant differences lie.

5.2 Characteristics of Remittance recipient and nonrecipient households

Table 5.1 shows the demographic and socioeconomic characteristics of households that have receive some remittance and those that have not received anything at all. The statistics are presented for remittance recipient and non-recipient households with reported two-tailed test of difference in means and accompanying standard errors. Generally there are no major statistically significant differences in demographic and socioeconomic characteristics between remittance-receiving and non-remittance receiving households. Among various types of kinship ties, friendship presents a significant difference as non-receiving households generally have more migrants who are just friends, but fewer migrants who are brothers or sisters of the receiving ones. The differences in other types of relationships are almost negligible. Even though not significant, it is interesting to see that non-remittance-receiving households have bigger families in terms of number of children under the age of 15 years and adults over the age of 15 years. One would expect that with a higher number of children in the household more remittances would flow for payment of school fees, child care and other living expenses. Probably the definition of remittance as total receipts of money for living expenses, establishment of house and business venture could be a reason for this unexpected outcome. Houses and business ventures, which carry significant weights in remittance so defined, have very little to do with presence of children in the household. Also with remittance-receiving families having greater number of older household heads, it is

expected that they would also have bigger families, but the opposite is the case. These results could perhaps be explained by the fact that these older families have got migrants

Table 5.1: Descriptive statistics of remittance-recipient and nonrecipient households

	Recipients		*Non Recipients*		*T-Test of mean difference*	
	Mean	*Std. Error*	*Mean*	*Std. Error*	*Mean*	*Std. Error*
Migrant is head	*0.05*	*0.01*	*0.02*	*0.02*	*0.03*	*0.02*
					0.06	*0.04*
Migrant is a spouse	*0.12*	*0.01*	*0.06*	*0.03*		
Migrant is a son/daughter	0.46	0.03	0.26	0.08	0.21**	0.09
Migrant is an in-law	0.13	0.01	0.10	0.04	0.03	0.05
Migrant is a brother/sister	0.56	0.03	0.56	0.08	0.00	0.10
Migrant is other relation	0.28	0.02	0.23	0.06	0.05	0.08
Migrant is a friend	0.04	0.01	0.16	0.0	-0.12***	0.03
Household size (adult)	3.74	0.07	3.84	0.22	-0.10	0.24
Age of household head	47.34	0.59	44.51	1.39	2.81	1.94
Average level of education	3.52	0.03	3.68	0.09	-0.16*	0.09
Household wealth	0.08	0.04	-0.01	0.14	0.09	0.16
Information flow	3.91	0.04	3.26	0.14	0.66***	0.13
No. of children	0.78	0.04	0.87	0.12	-0.09	0.13
Migrant contributes to traveling cost	0.63	0.02	0.62	0.05	0.01	0.06
Main decision maker - migrant	0.15	0.01	0.12	0.04	0.03	0.04
Attitude to migration	0.97	0.01	0.79	0.05	0.97***	0.01

*p<0.1, **p<0.05, ***p<0.01

who are well established in the host nation and therefore might have brought their immediate families members to stay with them. A quick look at Appendix 5A lends support to this assumption. The older the household head, the more years migrants have been away and the bigger the household size of the migrant in the host country. These are generally consistent with what has been found elsewhere (Orozco, 2008). A surprising finding here is the fact that families who have not received any form of remittances do have slightly and significantly higher level of education. Literature has it that migration, especially international migration is selective of educated families. It is therefore expected that more educated households would have more number of migrants and hence more flow of remittances. Probably the loose definition of migrant household as families that have migrant relations (not necessarily household members) abroad could explain this. As discussed in Chapter Three we should also bear in mind that the sample for this study is only

limited to international migrant families, and so factors such as education that have been found to strongly differentiate migrant households from nonmigrant households in the general population may not carry the same weights here.

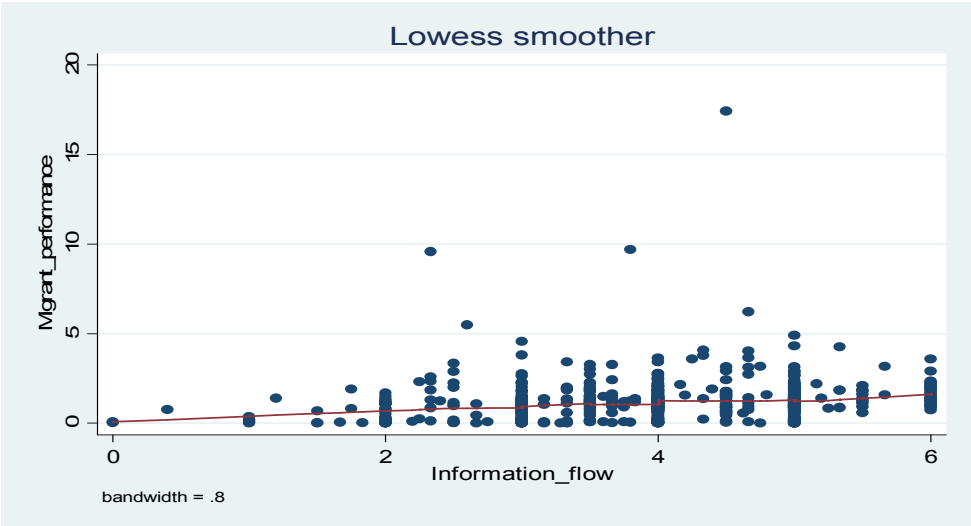
There is no significant difference between the two groups when it comes to pre-migration influences such as final decision makers and main contributors to meeting travelling cost. Remittance-receiving households interestingly have slightly and insignificantly higher number of migrants who footed most of the travelling cost and took the final decision to move. It seems presence or absence of any form of remittance flow to relations left behind does not vary significantly according to who bears most of the travelling cost or takes the final decision to move. The significant difference between the two groups as regards attitude to migration is not surprising as people who have a more positive attitude to migration are most likely to develop better relationship with the migrant and influence some flow of remittances.

5.3.1 Characteristics of households regarding information flow

As we saw in Section 5.2, most of the family members left behind only get private information on the social issues such as marital status and family size, and very few get information on the economic issues. So in the first part of the descriptive analyses I will like to show the differences or similarities in socioeconomic and demographic characteristics of the families that score high and low on the index of private information flow, and the second shows characteristics of those who source public information and those who do not.

As Table 5.2 shows, generally there are not many statistically significant differences between families that have high information or knowledge of the migrant relation and those who do not. There is a significant difference between high and low private information as regards past performance of migrants, as families with high private information have better performance than those with low information. This somewhat gives indication of a possible positive influence of remittance flow on increasing flow of private information. But as Figure 5.1 shows this increasing relationship between performance and private information flow does not seem to be that significant with the line showing a low gradient.

Figure 5.1 Relationship between migrant performance and information flow



In terms of relationships or kinship ties, families in which the migrant is much closer (for example, head of family, spouse child) are generally more on the high information side than the low private

Table 5.2: Descriptive statistics of households that have low and high private information flows

	High		Low		T-Test	
	Mean	Std. error	Mean	Std. error	Mean diff	Std. error
Migrant past performance	1.18	0.07	0.85	0.04	0.33***	0.07
Migrant is head	0.06	0.01	0.04	0.01	0.03*	0.01
Migrant is a spouse	0.13	0.02	0.10	0.01	0.02	0.02
Migrant is a son/daughter	0.49	0.05	0.42	0.03	0.08	0.05
Migrant is an in-law	0.12	0.02	0.13	0.02	-0.01	0.03
Migrant is a brother/sister	0.53	0.04	0.58	0.04	-0.05	0.06
Migrant is other relation	0.26	0.03	0.29	0.03	-0.03	0.04
Migrant is a friend	0.04	0.01	0.06	0.01	-0.02	0.02
Education level	3.60	0.04	3.49	0.03	0.12**	0.05
Household wealth	0.37	0.07	-0.11	0.05	0.48***	0.08
Household size of age 15+	3.81	0.11	3.72	0.09	0.08	0.14
No. of children	0.76	0.06	0.80	0.05	-0.04	0.07
Years of migration	10.54	0.37	10.10	0.30	0.45	0.49
Age of household head	47.20	0.79	47.12	0.73	0.08	1.14
Main financial contributor to travel - migrant	0.62	0.03	0.64	0.02	-0.03	0.03
Main migration decision maker - migrant	0.15	0.02	0.15	0.01	0.01	0.02
Attitude	0.95	0.01	0.95	0.01	0.00	0.01

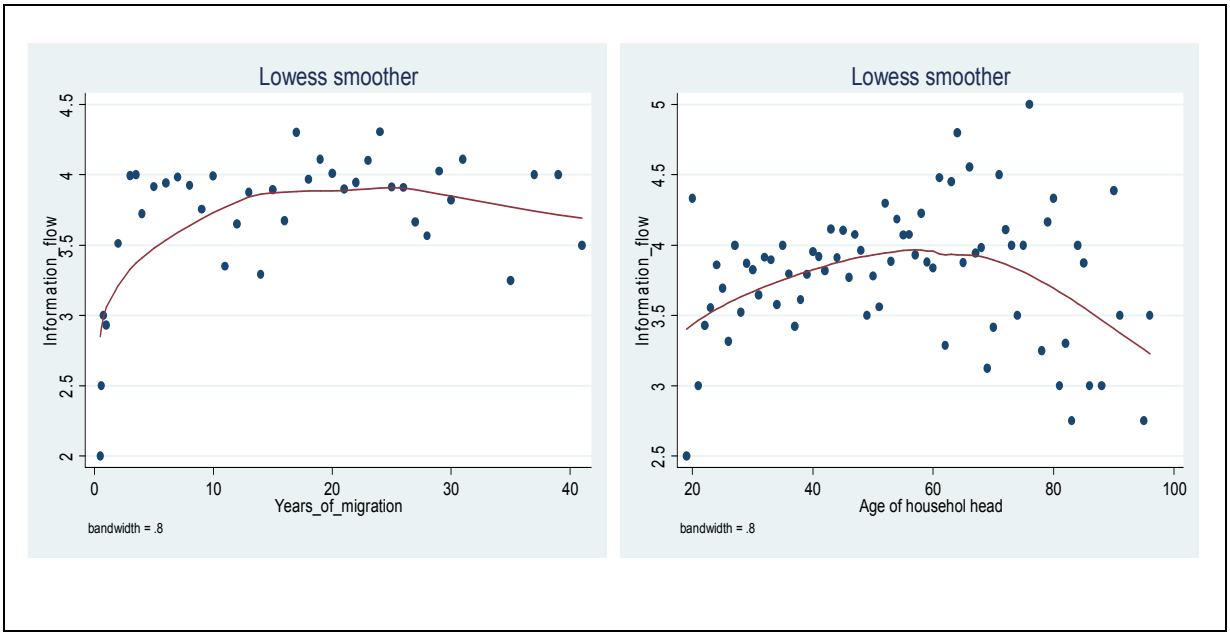
*p<0.1; **p<0.05; ***p<0.01

information flow. But it is only in the case of families where the migrant is the head that the difference is slightly significant at 10 percent level. Families in which the migrant is a bit of a distant relation such as in-laws, other relations and friends are generally on the low side of private information flow, though again, these differences are not statistically significant. Thus, apart from situations where the migrant is the head of the family, all the other variables measuring kinship ties are not statistically significant. Pre-migration factors such as whether or not the migrant himself or herself mainly carried the travel cost and/or made the final decision to move have some ambivalent differences. As expected families in which the migrant footed the travelling cost are more in the low information flow side most probably because the migrant may not feel strong any obligation to share information, especially the economic information about him or herself. However families in which the migrant took the final decision to migrate are slightly more on high information side. This is a bit surprising because one would expect that more of such families should also be on the low side of information as the decision to migrate was more of the migrant's own than that of the family. In any case these differences, though puzzling, are not statistically significant so not much can be read into them. Significant differences between families that have high information and those with low information come out against the background of average levels of education and wealth. Families in the high category of dedicated private information flow have higher average level of education and wealth than their counterparts in the low category. This is in contrast with what the previous section showed as more families with high level of education do not seem to be receiving remittances. But this is expected because the highly educated families are also likely to be found in the higher quintiles of wealth and hence the ability to afford high cost of international phone calls. Also migrants might find it more comfortable to communicate with highly educated families as the latter may find it easier to understand the migrant through their exposure to mass media.

None of the demographic factors such as the size of the household members who are 15 years old and above, number of children and age of household head have statistically significant difference in mean between high and low information flows. Even though not statistically significant, it is somewhat surprising that families whose migrants have been away for many years and older household heads are generally found to be on the high side of getting information about the migrant. To further investigate the relationship between years of migration and age of household head, and information flow from the migrants, I use a *lowess* with a line representing least-squares smoothing is presented in Figure 5.2. The

figure shows that information flow rises rapidly with increase in number of years the migrant has been away until around 15 years before it becomes relatively stable for the next ten years and then begins to decline. This therefore confirms the notion that private information flow eventually decreases with increase in years of migration even though the decrease does not seem to be that significant in this sample. The figure also shows a similar relationship between information flow and age of household head, except that here the declining trend at older ages is more pronounced. Information flow declines quite significantly after the age of 60 years for the household head. As stated earlier this is very much expected as they might have older migrants who are well integrated at their host countries. It must however be admitted that, for a greater period of the time in both cases, private information rises.

Figure 5.2: Relationship between information flow, years of migration and age of household head
With *lowess* smoother



5.3.2 Descriptive statistics households regarding public information flow

Just as found in the descriptive characteristics of families that have either low or high levels of private information about the migrant, most of the differences between families that got some information from the community through non-migrant relations and friends (public information) and those who did not seek information from this source are not statistically significant (see Table 5.3). Interestingly, though, most of the characteristics that show

higher values of private information have lower values of public information. For instance, with the exception of migrants who are spouse to the household head, most of the families in which the migrant is much closer do not seek information from other sources. Families in which the migrant is a friend or an in-law of the household head mostly seek information from other sources, on average. As expected, families that do not seek public information are found to be better educated than those who do otherwise. Better educated families should be better placed to source information about the socioeconomic conditions of the migrants from the migrants themselves. Also families that do not source public information are generally wealthier and have bigger family size. As found in the previous section, bigger families generally are able to get higher level of information from the migrants than

Table 5.3: Descriptive statistics of households that do or do not source public information

	Yes		No		T-Test	
	Mean	std. error	Mean	Std. error	Mean diff	Std. error
Migrant past performance	1.01	0.04	0.86	0.08	0.15*	0.08
Migrant is head of household	0.04	0.01	0.06	0.01	-0.02	0.02
Migrant is a spouse	0.12	0.01	0.10	0.02	0.02	0.02
Migrant is a son/daughter	0.43	0.03	0.49	0.06	-0.05	0.06
Migrant is in-law	0.13	0.02	0.11	0.02	0.02	0.03
Migrant is a brother/sister	0.55	0.03	0.60	0.05	-0.06	0.06
Migrant is other relation	0.26	0.02	0.32	0.04	-0.06	0.05
Migrant is a friend	0.05	0.01	0.04	0.02	0.01	0.02
Education level	3.49	0.03	3.63	0.05	-0.14**	0.06
Household wealth	0.06	0.05	0.09	0.08	-0.03	0.09
Household size of age 15+	3.62	0.08	4.09	0.14	-0.46***	0.15
No. of children	0.75	0.04	0.89	0.07	-0.14*	0.08
Years of migration	10.39	0.28	9.94	0.43	0.44	0.52
Age of household head	47.48	0.67	46.33	0.91	1.15	1.21
Main financial contributor to travel - migrant	0.64	0.02	0.61	0.03	0.04	0.03
Main migration decision maker - migrant	0.15	0.01	0.16	0.02	-0.01	0.03
Attitude	0.97	0.01	0.93	0.02	0.04***	0.02

**p<0.1; **p<0.05; ***p<0.01*

smaller ones, and hence may not be interested in seeking information from nonmigrants. The advantage of bigger households could be that at least one or two, if not all, of the members may be in the position to get information from the migrant.

5.4 Characteristics of families with remittance expectations

Table 5.4 presents a descriptive statistics of households that expect some remittances and those that do not expect anything at all. Of all the types of kinship ties, it is only in cases where the migrant is either a household head or spouse that we find a significant difference between the expectant and non-expectant families. But there is no significant difference

Table 5.4: Descriptive statistics of expectant and non-expectant families

	Expectant Families		Non-Expectant Families		T-test of difference	
	Mean	*Std. Error*	*Mean*	*Std Error*	*Difference in mean*	*Std. Error*
Migrant is head	0.05	0.01	0.01	0.01	0.04**	0.02
Migrant is spouse	0.12	0.01	0.06	0.02	0.06**	0.03
Migrant is son/daughter	0.43	0.03	0.54	0.08	-0.11	0.08
Migrant is an in-law	0.13	0.02	0.09	0.03	0.04	0.04
Migrant is brother/sister	0.55	0.03	0.65	0.08	-0.10	0.08
Migrant is other relation	0.29	0.02	0.22	0.06	0.06	0.07
Migrant is a friend	0.05	0.01	0.04	0.04	0.01	0.03
Performance of migrant	6.11	0.15	4.09	0.37	2.02***	0.43
Current information flow	4.08	0.04	4.15	0.11	-0.07	0.11
Public information	0.93	0.02	0.66	0.06	0.27***	0.07
Household wealth	0.05	0.04	0.19	0.11	-0.14	0.13
HH level of education	3.52	0.03	3.61	0.08	-0.09	0.08
Years of migration	10.43	0.25	9.27	0.63	1.16	0.72
Age of household head	42.39	0.77	46.68	1.87	-4.29**	2.18
Household size	4.54	0.07	4.54	0.16	0.00	0.21
HH bears travel cost	0.36	0.02	0.42	0.05	-0.06	0.05
Main decision maker	0.23	0.02	0.21	0.02	0.02	0.03
Attitude to migration	0.97	0.01	0.81	0.04	.16***	0.02

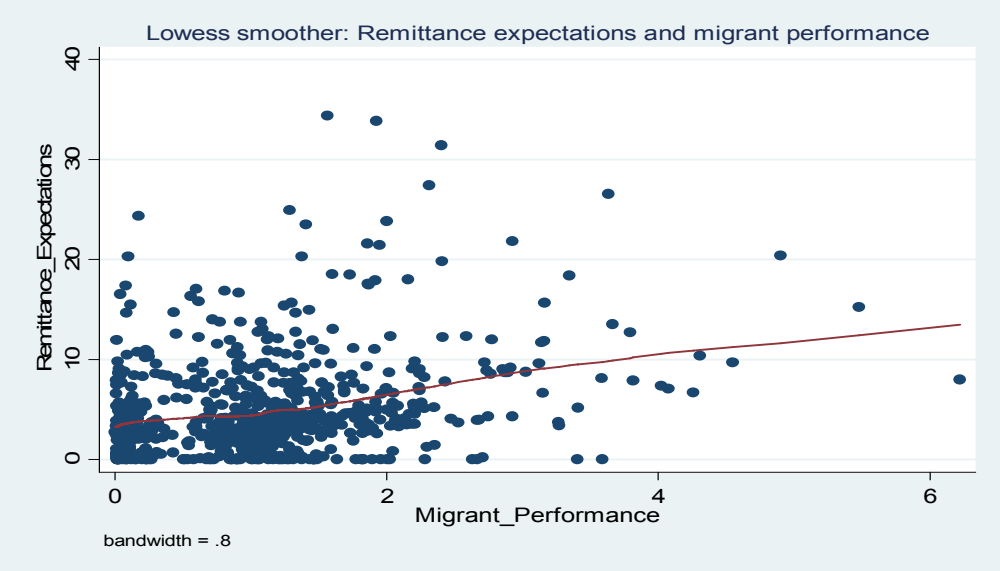
No. of Expectants =826; Non-expectants =117; *p<0.1; **p<0.05 ; ***p<0.01

between the two sets of families when it comes to current flow of private information about the socioeconomic conditions of the migrant members, even though the latter has slightly a higher level of information flow. There are significant differences in the flow of public information as the expectants families have slightly higher public information flow. Non-expectant families significantly have older household heads than expectant families. This could probably be due to the fact that older families have also been in migration process for a long time enough to have realised most of the things they expect to get from migration. On average performance of migrants of expectant families is significantly higher than their counterparts from non-expectant families. Families that expect some flows of remittances have significantly better attitudes towards migration than their non- expectant counterparts.

Interestingly there is no significant difference between those who did and those who did not contribute financially to the movement of the migrant. Does this imply that one does not have to make any financial contribution in the movement for one to expect to get something from migrant?

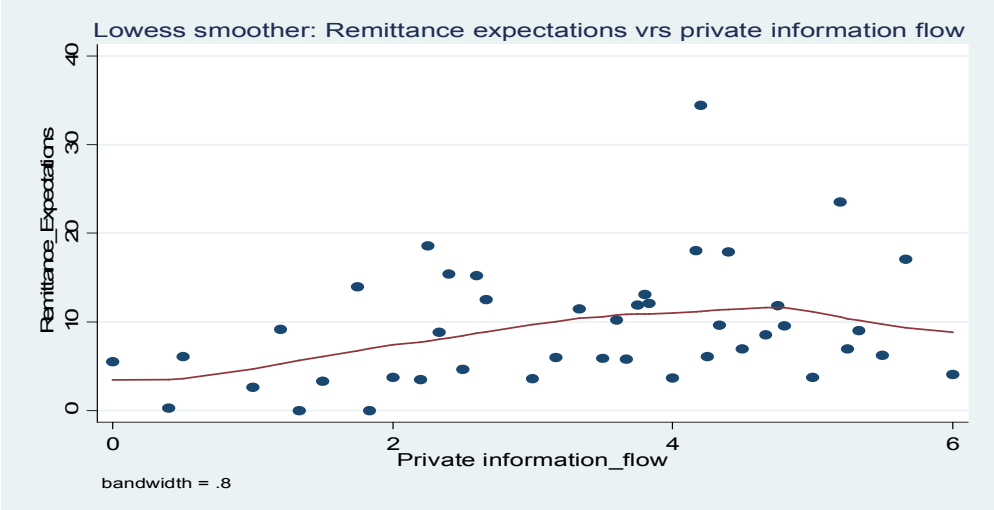
In addition to the t-test of differences, a closer look at the relationship between expectations and migrant performance at as well as information flows with lowess smoother plots is given in Figures 5.3 and 5.4. Generally remittance expectations rise with increase in migrant

Fig. 5.3: Migrant performance and remittance expectation



performance. That is, for the bulk of the sample, there is a positive relationship between remittance expectations and migrant performance indicating that families that have seen migrants doing something at home of origin do have high expectations of remittance flows. From Figure 5.4 remittance expectations generally rise with increase in private information flow up to about level five where families at home of origin would have information on marital status or family size and education. Beyond this level of information flow, expectations start decreasing. In other words people who have access to high information flow, like type of job and salary, seem to have lower levels of remittance expectations than those who have average information levels. However it would be too early to read too much into this relationship without controlling for other factors.

Fig. 5.4: Private information flow and remittance expectation



5.5 Remittance expectations and household migration support intentions

Remittance expectation is a major factor in migration in intentions to perpetuate migration and the strength of these intentions. However, we also find that in spite of having remittance expectations some households do not have any intention of supporting any of their members for migration. This leaves us with four different choices between remittance expectations and intention to perpetuate migration. Table 5.5 presents descriptive characteristics of the four decision groups: (1) those who have remittance expectations and intend to support migration of a member; (2) those who have remittance expectations but do not intend to support migration of a household member; (3) those who intend to support migration but have no remittance expectation, and (4) those who neither have remittance expectations nor intention to support migration of a household member. Generally households that have remittance expectations and intend to support migration (Group 1) have higher average score in most of the covariates being considered. They have migrant relations who have performed better than those of the rest of the groups; they have higher access to both private and public information flows about migration; they have more members within the age of 15 and 35 years, and they have had many more years of experience in having relations who are international migrants. But more importantly they also have higher average score in most of the kinship ties than the other three groups. It is therefore not surprising that, on average, these families also have much better attitude towards migration than the rest of the groups.

Table 5.5: Descriptive statistics of households' expectation-migration-support intentions choices

	(1) Expect and support		(2) Expect but not support		(3) No t expect but support		(4) Not expect & no support	
	Mean	*Std dev*	*Mean*	*Std. dev*	*Mean*	*Std. dev*	*n*	*Std. dev*
Performance of migrants	1.12	1.18	0.80	0.93	0.67	0.77	0.66	0.83
Household wealth	0.12	1.21	-0.08	1.40	0.14	0.99	0.26	1.44
Private information flow	3.92	1.08	3.75	1.19	3.89	1.31	3.59	1.19
Age of HH household head	46.88	16.87	46.83	16.75	49.79	17.33	48.48	15.75
Years of migration experience	10.61	7.17	9.96	7.37	9.55	7.06	8.94	6.51
Public information flow	0.76	0.43	0.70	0.46	0.65	0.48	0.39	0.49
Household level of education	3.54	0.72	3.50	0.78	3.45	0.89	3.79	0.87
No. of HH members of age 15-35	2.47	1.52	2.28	1.74	2.29	1.35	2.26	1.55
No. of children (< 15 years)	0.75	1.07	0.88	1.11	0.79	1.17	0.72	1.12
Attitude to migration	0.98	0.15	0.97	0.17	0.92	0.27	0.69	0.47
Migrant bears travel cost	0.50	0.50	-	-	0.22	0.42	-	-
Migrant is head of family	0.06	0.24	0.03	0.18	0.01	0.13	-	-
Migrant is a spouse	0.12	0.33	0.11	0.32	0.03	0.18	0.09	0.29
Migrant is a son/daughter	0.46	0.86	0.37	0.65	0.65	0.95	0.41	0.63
Migrant is an in-law	0.14	0.45	0.13	0.40	0.10	0.35	0.09	0.29
Migrant is a brother	0.59	0.89	0.47	0.75	0.46	0.78	0.87	0.91
Migrant is other relation	0.33	0.74	0.20	0.48	0.19	0.43	0.26	0.81
Migrant is a friend	0.04	0.22	0.07	0.34	0.08	0.52	-	-

Families that have remittance expectations but do not intend to perpetuate migration seem to be the poorest as well as the youngest, on average. This perhaps implies that they may not have the funds as well as the potential people for them to perpetuate migration. However, the fact that the wealthiest group (i.e Group 4) do not intend to support any one for migration perhaps shows that availability of funds is not enough reason to support migration. There is not much difference in human capital available to the first three groups, but Group 4; that is those who neither expect anything nor intend to support migration, has apparently higher average level of education than the rest. This is not surprising as there is usually a positive relationship between household wealth and levels of education.

These descriptive analyses show that kinship ties seem to have some positive influence on remittance flow or migrant performance. But these ties do not seem to be enough in influencing high flow of dedicated private information flow. At this stage it seems wealth, education and past performance of migrant at home of origin stand out to have some positive

effect on private information flow. As regards expectations and migration intentions past performance and pubic information seem to be important in remittance expectations as well as intentions to perpetuate migration within the family.

CHAPTER SIX

REMITTANCE AND INFORMATION FLOWS BETWEEN MIGRANTS AND RELATIONS LEFT BEHIND

Back home, expectations are so high among family members, friends and relations that it does not matter whether these individuals are able to make it to the so-called 'promise land' or not. It does not matter whether they are employed or not. ***After all who cares to hear their stories?*** *They are in America and Europe where milk and honey flows, so they have no excuses – Tsikata, 2006*

6.1 Introduction

In the strict sense of the new economics of labour migration (NELM), framework, investigating relationship between remittance flow and information flow might not be necessary, because the flow of remittance is enough indication that the contract between the and those left behind is being honoured (Scapens and Arnold, 1986; Stark and Taylor, 1991). If the flow of remittance or performance of migrants is enough, there will not be expectations, and perhaps no consequent desire to support more migration, because the very need for engaging in migration in the first place has been met. The fact that there are some expectations means either the initial need or a new need has not been met. Throughout the survey of literature we saw that kinship ties are very key in influencing remittance flows. And since migrants would have some sort of communication in their interactions with home as they observe the contract, one would assume that those left behind would have access to private information flow.

We saw in Chapter Two, that there is a lot of debate around the flow of information between migrants and those left behind. While some would agree with NELM's assumption based on kinship responsibility for one another as a basis for cooperation including flow of information (Young, 2007; Hagen-Zanker; Mazzucato, 2009), contributions from information economics (Ryan et al, 2002) and rational expectations studies point to the contrary. According to this school information flow cannot be assumed to be available to everyone, even with the flow of remittance. With a vast geographical distance between the migrants and the relations left at home in international migration, the assumption of availability of information between migrants and those left behind becomes highly untenable. Other studies have also established that, in absence of legal bindings, the trust in social norms to relational values to guide information flow and monitoring is bound to give

rise to moral hazard with resultant information asymmetries between migrants and those left behind (Chen, 2006).

In this chapter I contribute to this debate by examining whether or not the influence kinship ties and wealth have on observed remittance flow or migrant performance is the same influence they have on observed flow of information. The main question here is, does flow of remittance or migrant performance at home of origin simultaneously lead to increasing flow of information from the migrant to those left behind? In addition to the direct information flow from the migrants, people left at home of origin also source information from friends and other relations in the community. This is what I call public information flow. An analysis is done to determine factors that make families rely on this source of information. It must, however, be pointed out that the focus of the chapter is more on the dedicated private information flow from the migrants as estimated with the information index in Chapter Four than information sourced from the community. But before then it is important to know major determinants of remittance flow or migrant performance as this will help us to explain better the determinants of private information flow.

6.2.1 Exploring determinants of individual migrant performance in key items

Even though most of the differences between families that have received remittances and those who have not are not significant in the descriptive analysis as observed in previous chapter, all the variables described above are entered in the multivariate model using maximum likelihood to assess their relative importance in determining the household's likelihood of receiving the individual items. Table 6.1 presents result from a *probit* model estimating the effects of kinship ties on the probability of the household receiving money for living expenses, house and business investment controlling for various socioeconomic and demographic factors. In addition to the individual items, there are also estimates for probability of a household receiving something or nothing all. Consistent with the results from the descriptive statistics, all the kinship types, with exception of friendship, have positive effects on the likelihood of the household receiving something from their migrants. The predictive effects are higher, as expected for closer relations such as spouse and household head. The results however reveal some significant differences in the effects these determinants have on the likelihood of the household receiving individual items.

Relationships are the dominant factors in determining receipt of money for living expenses with families in which the migrant is the head of the household or a spouse of the household head having much more impact than any other factor for obvious reasons. As found elsewhere (Manuh, 2001; Orozco, 2008), the influence of parents is among the strongest predictors of migrant remittance attitudes in the community of origin. Orozco finds that parents receive about 46% of the remittances sent by Ghanaian migrants in Netherland. This has been attributed to the strong matrilineal system among the Akans of Ghana (refer to

Table 6.1: Results from *probit* model estimating effects of kinship ties on the likelihood of receiving money, house and business investment.

	At least one item		Money		House		Business	
	Coef.	Std. err	Coef.	Std. err.	Coef.	Std. err	Coef.	Std. err.
Kinship ties								
Migrant is head	0.791**	0.390	0.678**	0.277	0.325	0.219	0.389*	0.227
Migrant is a spouse	0.605**	0.249	0.660***	0.215	0.454***	0.149	0.417***	0.155
Migrant is a son/daughter	0.336***	0.119	0.211**	0.095	0.096	0.066	-0.002	0.073
Migrant is an in-law	0.430**	0.198	0.152	0.141	0.097	0.104	0.083	0.114
Migrant is a brother/sister	0.221**	0.099	0.162**	0.080	0.018	0.059	0.058	0.065
Migrant is other relation	0.212*	0.112	0.214**	0.096	0.086	0.068	-0.010	0.077
Migrant is a friend	-0.190	0.167	0.010	0.162	-0.533***	0.196	0.292*	0.158
Household Characteristics								
No. of adults	-0.054	0.038	-0.093***	0.032	0.039	0.026	0.036	0.029
Household Wealth	0.058	0.055	0.062	0.047	0.077**	0.037	0.161***	0.043
Household education level	-0.120	0.092	-0.135*	0.079	-0.070	0.061	0.053	0.069
Age of household head	-0.017	0.013	-0.017	0.011	-0.006	0.009	-0.005	0.010
Age of household head sq.	0.000**	0.000	0.000***	0.000	0.000	0.000	0.000	0.000
No. of children	-0.092	0.058	-0.158***	0.048	-0.012	0.040	0.023	0.046
Migrant main contributor	0.167	0.160	0.000	0.138	0.224**	0.110	-0.023	0.122
Migrant main decision maker	0.016	0.218	0.110	0.192	-0.054	0.144	0.081	0.155
Family migration attitude	1.208***	0.221	1.155***	0.213	0.923***	0.226	0.772**	0.299
Constant	0.779	0.597	0.897*	0.515	-0.667	0.437	-1.905***	0.528
Number of obs.	942		942		942		942	
LR chi2	66.01		81.07		55.68		47.01	
Prob >Chi2	0.000		0.000		0.000		0.000	
Pseudo R^2	0.119		0.103		0.043		0.048	

*p<0.1, **p<0.05, ***p<0.01

Chapter One). A failure of the migrant to provide a decent shelter for the parents, especially if the parents are renting is considered an embarrassing situation for the migrant who is largely expected to lead the way in providing decent life for the parents. The situation

becomes worse if maternal relations find out that more support is going to the in-laws. This is considered utter "stupidity" as the in-law does not belong to the maternal lineage (*Ibid*). The comparatively lower effect of sibling (brother or sister) is perhaps not surprising. Migrants do not express as much concern for brothers or sisters as they do with parents. Some, especially male migrants, have been found to be complaining that their sisters at home of origin just continue to reproduce without much regards to care of the children (*Ibid*). The matrilineal system which traditionally sees to it that nephews and nieces inherit from uncles and aunts sometimes makes parents shy away from their responsibilities and often look to brothers and sisters for support (Nukunya, 2003). It is because of this that migrants would sometimes support their siblings in business investment or help them to travel abroad so that they would also contribute to the support of others in the entire extended family (Mazzucato, 2009).

It is clear from this study that the sense of obligation towards close relatives such as spouse, parent and children means that they are more likely to get some money from the migrants. The effect of friendship is negative, though not significant, in receipts of money. Surely kinship obligations differ according to the type of relationship (Orozco, 2008; De Vries et al, 2009). But an interesting phenomenon here is the significantly negative impact of household size. One would expect that all things being equal the presence of children would induce a flow of money for living expenses such as school fees. This negative effect which is also hinted at in the descriptive analysis is first thought to be influenced by the definition of total remittance flows which include houses and business investment that may have very little to do with children. But the negative effect even on the flow of money for living expenses means it is something more than just the definition of remittance in the study. In a similar investigation, Garip (2006) also found a negative relationship between presence of school-going children in the family left behind and remittance flows. Amidst difficulty in explaining this unexpected outcome, she attributed this to the fact that the sample for the study was limited to migrants of ages between 18 and 35 years, who would probably not have children of school-going age. With the average age of migrants being 37 in this sample, this may not hold in explaining this unexpected outcome. Even though the data do not allow us to empirically confirm, a possible explanation could be that these are not children of the migrants as the definition of migrant household does not strictly mean the migrant is a member of the household but just a relation. So relationship would be more important than

just the number of biological children or adult the family has in inducing migrants to send money.

Effects of these determinants on house investment are not too different from that of money for living expenses. Friendship with the migrant significantly exhibits negative impact, while other relationships generally have positive impacts on house investment. The major difference here is that it is only the spouse that is statistically significant in having a positive influence on household's likelihood of having its migrant building a house. Household wealth, which is not significant in influencing flow of money for living expenses, has a significantly positive influence on household's likelihood of getting a house built by the migrant at home. This could most probably be due to that fact that being wealthy, the household frees the resources from the migrant that could have been used for living expenses and significantly helps the migrant to reallocate it into other uses including housing.

Demographic factors, again, are not important determinants of migrant performance in housing investment. Building a house is one of the major objectives of travelling abroad. When a migrant bears most of the travelling cost, it is more likely that he or she will have more controlling influence on how to use the money he or she makes. He or she can therefore allocate remittances into realising his/her aim of building a house. On the other hand, if a major part of the financial contribution to travel costs is from the household, then there is a higher likelihood of the migrant being bound to the consumption demand from the rest of the family left behind and hence an inability to fulfil other aims such as housing and business investment.

When it comes to business investment, effects of relationships are somewhat ambiguous. Spouses have significant effect on business investment. Interestingly, friendship which has been recording negative impact on cash remittance and housing investment has a significantly positive effect on business investment. One explanation that could be offered for this is that most often migrants have been found to be using friends to either monitor their investments at home of origin or to do some market investigations when they intend to invest (Orozco, 2008; Mazzucato, 2009). Household wealth has positive marginal effect on business investment. That is also not surprising because, as explained earlier, wealthier families would probably not use the money allocated to business investment for other

purposes. Among poorer households, there have been lots of cases in which migrants have come home to find that all the money sent for certain purposes have been diverted into something else (Owusu, 2000).

6.2.2 Determinants of Migrant Performance at home of origin

Table 6.2 presents the results from the OLS regression and Heckman models. As the likelihood ratio test significantly indicates the error terms of the equations are not independent, meaning it is appropriate to apply the Heckman model to estimating effects of kinship ties and socioeconomic characteristics of the household on migrant's performance at home of origin. The diagnostic tests of correlation matrix, multicollinearity, Ramsey test and kernel density estimates of residuals given in Appendices 6A, 6B and 6C, respectively

Table 6.2: Determinants of migrant performance at home of origin (OLS)

	OLS Model		Heckman Model			
	Coef.	S. E.	Coef.	S.E	Marg. coef	Marg.S.E
Outcome Equation: Migrant performance at home						
Kinship Ties						
Migrant is head	0.218***	0.084	0.087	0.087	0.153*	0.083
Migrant is a spouse	0.363***	0.056	0.272***	0.059	0.310***	0.054
Migrant is a son/daughter	0.169***	0.025	0.131***	0.027	0.205***	0.024
Migrant is an in-law	0.116***	0.040	0.103**	0.042	0.172**	0.038
Migrant is a brother/sister	0.124***	0.023	0.102***	0.024	0.157***	0.021
Migrant is other relation	0.110***	0.026	0.075***	0.027	0.116***	0.025
Migrant is a friend	-0.071	0.059	0.061	0.071	0.060	0.064
Household characteristics						
No. of adults	0.001	0.010	0.012	0.011	0.003	0.009
Household Wealth	0.061***	0.014	0.054***	0.015	0.057***	0.013
Household education level	-0.014	0.024	0.007	0.025	-0.010	0.022
Age of household head	-0.002	0.003	0.001	0.004	-0.002	0.003
Age of household head sq.	0.000	0.000	-0.000	0.000	0.000	0.000
No. of children	-0.009	0.016	0.013	0.017	0.001	0.015
Migrant main contributor	0.082*	0.043	0.040	0.045	0.045	0.040
Migrant main decision maker	0.029	0.056	0.016	0.059	0.034	0.052
Family migration attitude	0.405***	0.079				
_cons	-0.240	0.166	0.656***	0.159		
LR test of indep. eqns. (rho = 0): chi2(1) = 47.87 **Prob > chi2 = 0.0000** [*p<0.1, **p<0.05, ***p<0.01]						

show that the model is appropriate. Comparing the coefficients from the OLS and marginal effects estimates from the Heckman model, it seems most of the significant differences are

from the kinship ties variables. Because a lot has already been discussed around household likelihood of receiving at least one item in the previous section, the selection equation from the Heckman model has been omitted from the discussion here. This is because the selection equation measures the same probability of a household receiving at least one item from the migrant. The outputs from the selection equation are given in Appendix 6D.

As observed in previous sections kinship ties influence migrant's performance more than any other variable. All the relationship types, with the exception of friendship, have significantly positive effects on migrant's performance. And quite expectedly households in which the migrant is the head or spouse have the highest marginal effects on performance, about twice the effects from other types of relationship. The strong but varying effects of kinship ties on migrant performance, perhaps resonates effects of altruism as explained by Stark and Lucas (1985). Altruism is a more powerful force among close relations than distant ones. There may be some exceptions, of course, but generally altruism within the family should prevail over nonrelatives. If altruism is behind the positive effects of relationships on migrant performance at home of origin, then poor families should command more performance from the migrants. But the positive effect of wealth on migrant performance shows that a unit increase in household wealth increases migrant performance by about 6%, perhaps confirming the explanation from the tempered altruistic model of remittance theories that the wealthier households wield their power over the migrants to make them perform. A more plausible explanation though should be that wealthier households have the trust of the migrants for housing and business investment as observed and explained in the previous section. Also the fact that they tend to have more number of migrants than the poor (Table 4.4 in Chapter Four), wealthier households are more likely to have good performance from at least one of their migrant relations. It should therefore not be surprising that they would have more migrants sending home.

Demographic factors such as age of household head, number of children and adults are not significant determinants of migrant total performance. This is not surprising because as seen in the previous section, the demographic factors generally have weak effects on household's likelihood of receiving something. Probably these factors would have to interact with other factors such as relationships and wealth before they could have any significant impacts on migrant total performance.

6.3 Remittance and information flow

In the preceding section, we saw that kinship ties and household wealth are quite important in influencing the flow of remittances and migrant performance. It will therefore not be surprising to find family members left behind use experience of past performance to form their remittance expectations. But whether or not the past performance of a migrant can strongly influence these remittance expectations largely depends on the type of information relations left behind get from the migrants or other sources. It will also depend on whether or not the information is enough. This is because as we discussed in Chapter Two, people form expectations based not only on experience of past event of the variable but also on other relevant information about the entity available to them. Information flow determines the level of knowledge families at home have about the socioeconomic conditions of their migrant relations. Both the quantity and quality of information flow about current socioeconomic conditions of the migrants have profound effects on the structure of the household's subjective remittance expectations. This is because information opens the windows for those left behind to know what is going on at the destination country while shaping their general thinking around what to expect and further migration intentions. The flow of this information also helps agents to monitor the environment within which their expectations are formed.

6.3.1 Impact of remittance flow on private and public information flows

The multivariate analyses from this and the next section would either confirm or dispel the findings emerging from the descriptive analyses. I estimate the impact of remittance flow on both private and public information flows. As described in Chapter Four, instrumental variable (IV) technique is used to control for possible effect of endogenous relationship between remittance and information flows. The test for exogenous relationship between remittance and both types of information flows is not significant (See Appendix 6Eii), indicating that there is no basis to suspect endogenous relationship between them, so perhaps focusing on OLS and *probit* estimates will do. Table 6.3 below presents only the results from OLS and *probit* estimates. (See Appendix 6Ei for the estimates from the IV technique as compared with the OLS *probit* models).

From the OLS estimate remittance flow is a significant factor in influencing private information flow. However, when the model is run for only households that have access to

Table 6.3 Determining impact of remittance flow on private and public information flows with OLS and *probit* models

	Private information		***Public information***	
	Coef.	Std. Error	Coef.	Std. error
Remittance flow	0.656***	0.139	0.104**	0.043
Kinship ties				
Migrant is head	-0.061	0.187	-0.181	0.223
Migrant is a spouse	0.093	0.126	-0.039	0.161
Migrant is a son/daughter	-0.056	0.057	-0.132*	0.072
Migrant is in-law	-0.156	0.091	0.043	0.117
Migrant is a brother/sister	-0.149***	0.054	-0.095	0.068
Migrant is other relation	-0.193***	0.061	-0.134*	0.074
Migrant is a friend	-0.218*	0.131	-0.189	0.173
Household characteristics				
Household education level	-0.012	0.053	-0.145**	0.065
Household wealth	0.154***	0.032	0.009	0.040
Household size of age 15+	-0.003	0.022	-0.093***	0.027
No. of children	-0.068*	0.035	-0.126***	0.053
Years of migration experience	0.038**	0.017	0.023*	0.007
Age of household head	0.006	0.001	-0.011	0.001
Age of hh head squared	-0.000	0.000	0.000	0.000
Main financial contributor to travel - migrant	-0.002	0.095	-0.018	0.117
Main migration decision maker - migrant	0.041	0.123	-0.030	0.152
Attitude	0.086	0.183	0.485**	0.205
Constant	3.071***	0.386	1.151**	0.448
	No. obs. =938		No. obs. =938	
	F(19, 910) = 4.69		LRchi2(18) =57.52	
	Prob > f= 0.000		Prob > chi2= 0.000	
	Adj. R^2= 0.070		Pseudo R^2=0.051	

*p<0.1; **p<0.05; ***p<0.01

high private information flow, remittance flow has no significant effect on information flow (See Appendix 6F). This means that the positive effect of remittance flow on access to private information is limited to only lower levels of the latter. Remittance flow has positive effect on public information flow about migrants in place of origin. This positive effect is irrespective of whether or not the model is estimated for families with low or high private information flows (See Appendix 6F). This is expected because what migrants do at home generates lots of 'gossip' within the community, and this becomes a source of information

about the migrant to many families. It is these 'gossips' that Tsikata (2006) observes in Ghana as some families cutting ties with their migrant relations because the latter have "not been able to remit them as Johnny has been doing for his parents."

The other variables in the model exhibit varying, but largely expected effects on information flow. All types of kinship ties have negative albeit some insignificant effects on both types of information flows. While the negative effect of children under the age of 15 years is not surprising as they may be too young to get any relevant information about migrant relations, the negative effect of number of adults in the household, especially in seeking public information is quite surprising since one would expect that increasing number of adults in the household would lead to more people in the household seeking information from this source. Education is not a significant factor in determining private information. It however has a significant negative effect on public information flow. This is also expected given that more educated people are more likely to deem information from nonmigrant as unreliable and would rather trust what they get from the migrants themselves. Household wealth has also got this opposing effect. While wealth is positively associated with private information flow, it has a negative effect on public information flow. With time, though, families would hear something about the migrant, be it public or private information as the significant positive effect of migration years shows.

There are two important findings here that have important implications in the next chapter. One, though remittance flow seems to have some positive effect on private information flow, there is no endogenous relationship between them. And two, the positive effect of remittance flow on private information seems to be limited to low levels of the latter, though we will have to confirm this in the next section

6.3.2 Determinants of higher levels of private information flow

Table 6.4 presents the estimates from the generalised ordered logic (*gologit2)* model with alternative parameterization and gammas (i.e deviations from the parallel assumption). The first panel (Gamma 1) contrasts "Very low" category with all the other three higher categories, the second panel (Gamma_2) contrasts categories "Very low" and "Low" categories with those of "High" and "Very high", while the third panel contrasts the first

Table 6.4 Determining higher levels of private information flow with generalized ordered *logit* model

	Gamma 1		Gamma 2		Gamma 3	
	Coef.	Std. Error	Coef.	Std. error	Coef.	Std. error
Gamma_1						
Migrant performance at home	0.876***	0.107	-0.652***	0.103	-0.487***	0.137
Kinship Ties						
Migrant is head	0.104	0.318				
Migrant is a spouse	0.020	0.217				
Migrant is a son/daughter	0.160**	0.126	-0.210**	0.102	-0.683***	0.238
Migrant is in-law	-0.153	0.152				
Migrant is a brother/sister	-0.200**	0.097				
Migrant is other relation	-0.168	0.106				
Migrant is a friend	-0.201	0.239				
Household Characteristics						
Household education level	-0.232**	0.101	0.272***	0.083	0.393**	0.203
Household wealth	0.279***	0.057				
Household size of age 15+	-0.004	0.038				
No. of children	-0.092	0.061				
Years of migration	0.066***	0.029				
Years of migration squared	-0.001	0.001				
Age of household head	0.011	0.013				
Age of household head squared	-0.000	0.000				
Main financial contributor to travel - migrant	0.017	0.165				
Main migration decision maker -migrant	-0.059	0.203				
Attitude	0.122	0.315				
Constant						
Alpha						
_cons_1	0.221	0.669				
_cons_2	-1.407***	0.664				
_cons_3	-4.366***	0.943				
Number of obs = 938						
LR chi2(25) = 168.28						
Prob > chi2 = 0.0000						
Pseudo R2 = 0.0727						

**p<0.1; **p<0.05; ***p<0.01*

three categories with the "Very high" category. Since the coefficient of constrained variables are the same for all the panels, they are not repeated in gamma 2 and gamma 3; only the

different effects exhibited by unconstrained variables – level of household education, performance of migrant and brother or sister – are presented.

As found in the descriptive statistics, with the exception of son/daughter, brother or sister, all the other relationship variables measuring kinship ties are not statistically significant determinants of higher levels of information flow. That is they do not significantly increase or decrease the likelihood of a migrant family moving to higher categories of private information flow. Even the significant ones have negative effects on higher flow of information. When the migrant is a son or daughter to the household head, it initially increases the likelihood of the household getting more information from him or her. However, increasing number of migrant sons or daughters for the household does not lead to corresponding increase in private information. This is surprising because one would expect that the strength of social norms and obligations which characterise kinship ties would bridge any gap in information flow created by distance as argued by Young (2007) and Mazzucato (2009) and also assumed by the network and NELM and network theories of migration. Thus the strength of social norms, customary rules and values of kinship network is not enough for families to get information from the migrants in spite of the fact that they are key determinants of remittance flow. If anything at all these ties seem to have negative effects confirming the results from OLS in the previous section. Other insignificant factors are number of children under the age of 15 years, age of household head, and decision around migration.

For families to get higher levels of private information from migrants they may need to rely on other factors than the kinship ties. Major significant determinants of higher levels of private information flow from migrants to relations back home are years of migration, household wealth and level of education. Increase in the number of years of migration in the family increases the likelihood of knowing more about the migrants. Thus the longer the migrant has been away the more it seems the family can have dedicated information flow. If families cannot wait for time to bring them the information then they must have the wealth. It is not surprising to find that wealth has significant positive effect on private information flow at all levels. Wealth does not only enable the household to have the resources for communication, it also has a possible effect of making the migrant feel more relaxed in giving more information as the fear of excessive demand may not be very strong with wealthy family relations left behind.

Migrant performance/remittance flow has an initial positive effect on information flow. But as observed in kernel density plot of Figure 5.1 in Chapter Five, increasing flow of remittance does not necessarily lead to increasing flow of dedicated information about the socioeconomic conditions of the migrant. Results from the generalised ordered *logit* model show that migrant performance also has positive effect on information flow on in the lower levels of the latter. Thus remittance flow can only help those who are left behind to know just a little about the socioeconomic conditions of the migrant. This result confirms the first hypothesis that remittance flow has only a limited positive effect on dedicated information flow from the migrant. It is rather the education level of the household that has significant positive effect on dedicated information from the migrants. Families begin to get more and more information flow with increase in average level of household education. The most important effect of education is its ability to pull families away from more negative flow of private information to highly positive ones. Perhaps this is expected because as explained earlier, migrants are likely to find it more comfortable to communicate with educated relations as the latter would be more likely to understand the migrants' socioeconomic conditions. Education can have huge impacts on household's ability to get information from various sources and be able to use it differently to generate more interaction with the migrant. Also the highly educated families are more likely to be the wealthy ones who can afford the cost of finding information about the migrant relation abroad.

CHAPTER SEVEN

FORMATION OF SUBJECTIVE REMITTANCE EXPECTATIONS AND FAMILY MIGRATION INTENTIONS

7.1 Introduction

.... with youth unemployment rates sky-rocketing on the continent of Africans under the age 30 unemployed, migration, legally or illegally, still remains very attractive to most African youths despite the dangers involved. The thinking is that one may be the fortunate one to scale the barb fences successfully to the promise land where the pastures are green, so that one can also extend a helping hand to relations at home to free them from the devastating and disgraceful effects of poverty – Tsikata (2006).

Having examined the nature of migrant performance, private and public information flows – the two most important factors in formation of remittance expectations – we can now turn the central point of the thesis: formation of remittance expectations and perpetuation of migration within the family. Chapter Six gave detailed accounts of these two factors and the various household demographic and socioeconomic characteristics that determine them. It emerged that kinship ties, though important in influencing migrant performance at home of origin, are not that important in influencing them to have more information about socioeconomic conditions. And unless they have wealth and a good average level of education, families left behind may not be able to get dedicated information flow from the migrant. Receipts of remittance cannot be viable source for higher dedicated or private information either as flow of remittance only comes with low levels of information flow. This leads to some level of uncertainty about the socioeconomic conditions of the migrants. It is therefore puzzling to know how those left behind come up with various levels of subjective expectations of remittance flow under this condition of limited access to dedicated information. It is this also puzzle that the first part of this chapter tries to answer as it examines formation of remittance expectations.

Specifically, in this chapter, I estimate how information flow, performance of migrants and kinship ties affect subjective remittance expectations while controlling for the same household demographic socioeconomic characteristics. The main objective is to find the relative importance of these three factors in the formation of remittance expectations. The hypothesis as illustrated in Chapter Two is that under low levels of private information flow,

the effects of migrant performance and public information flow would be significantly positive on remittance expectations, and the reverse would be the case under high flow of private information flow. In other words under conditions of uncertainty families left behind would rely on what they see or hear about the performance of migrants to form their remittance expectations. This is the first test to be performed in this chapter.

The second test deals with the implications of remittance expectations thus formed for perpetuation of migration with the family is the focus of test in the second part of this chapter. The implication is that household's intention or desire to continue migration process would also largely be based on expectations formed from inadequate information. And should information be adequate the effect of expectations on migration intentions would be greatly reduced. The main questions for investigating remittance expectations and migration intentions are: What are the effects of expectations, information flow and performance of migrants on (a) intentions of families or relations left behind to continue the migration process and (b) the strength of these intentions? Following the thinking of De Jong (2000), van Dalen et al (2005) and Avato (2008), these questions assume that remittance expectations should lead to intentions to perpetuate migration.

However, not all households who have positive remittance expectations do have the intention to perpetuate migration as a livelihood strategy. Investigating the factors behind this deviation will help us to better understand the effects of subjective remittance expectations on perpetuation of migration. So the third major objective of this chapter is to find the factors that account for the differentiation between households that have positive remittance expectations and desire to continue migration process on one hand and the three other possible choices which are:

(a) positive remittance expectations and desire not to continue migration process,

(b) negative expectations but desire to continue the migration process, and

(c) negative remittance expectations and no desire to perpetuate migration in the household.

But the focus of discussion in this section will be on (a), because that investigation will reveal whether or not there are peculiar factors that select families into this group. And more importantly this investigation will give us an indication of why some migration chains are likely to fail to gather momentum at the household level.

7.2.1 Exploring expectations for individual items

In order to understand the nuances behind the expectation index we saw in Chapter Four and to equip us with better understanding of how remittance expectations are formed, we need to explore the determinants of individual expected items. Table 7.1 presents results from the *probit* model estimating the probability of a family expecting something or nothing from migration. Unlike migrant performance and public information flow, private information is not a significant factor in determining whether or not a family would generally expect something from migration. In terms of relationships having a migrant who is the head or a spouse of the family back home has significantly positive effect on the likelihood of the family expecting something just as we saw with probability of receiving something in Chapter Six. But the rest of the kinship ties, though significant in influencing receipt of remittances as observed in Chapter Six, are not significant in influencing general expectation status.

Expectation status of individual items gives details about the general expectation status. Performance of migrant and public information have positive significant effect on likelihood of expecting money, but none of the types of kinship ties is significant. As regards expectation status of house two factors stand out. Private information flow becomes significant only in expectation of a house with a positive effect. This is may not be surprising given that a lot of private information has to go with big investment like establishment of a house. The other factor that stands out here is household wealth. Earlier in Chapter Six we saw that household wealth has a significant positive effect on likelihood of having a migrant build a house. But it has negative effect on the likelihood of expecting a house. This confirms to the earlier interpretation that positive effect of household wealth on likelihood of having a house could be due more to the fact that migrants feel more secured to deal with wealthy households than the latter actually in need of a house. In other words wealthy households may not expect a house, but they may offer a secured channel through which migrants may send money for investment. Generally the most consistent factors that have significant positive effects on remittance expectation of all the three items are migrant performance, public information and positive attitude to migration.

Table 7.1: *Probit* model estimating expectation probabilities of individual items

	Expect something		Expect Money		Expect a house		Expect business	
	Coef	std. Error	Coef	std. Error	Coef	std. Error	Coef	std. Error
Private information	-0.042	0.053	-0.050	0.055	0.089**	0.043	0.016	0.040
Community dynamics								
Past performance	0.191**	0.079	0.267***	0.084	0.274***	0.057	0.095**	0.045
Public information	0.482***	0.122	0.475***	0.125	0.475***	0.102	0.259***	0.099
Kinship ties								
Migrant is head	0.756*	0.458	0.619	0.458	0.206	0.250	0.003	0.222
Migrant is a spouse	0.318***	0.227	0.124	0.227	0.715***	0.196	0.094	0.151
Migrant is a son/daughter	-0.064	0.088	-0.126	0.088	-0.106	0.075	-0.074	0.070
Migrant is an in-law	0.124	0.161	0.034	0.165	-0.025	0.120	-0.068	0.106
Migrant is a brother/sister	-0.039	0.082	-0.123	0.082	-0.159**	0.066	-0.010	0.062
Migrant is other relation	0.117	0.100	0.046	0.098	-0.109	0.075	0.093	0.070
Migrant is a friend	0.156	0.200	0.127	0.207	-0.442**	0.189	-0.062	0.164
Household characteristics								
No. of adults	0.039	0.035	0.043	0.036	0.063**	0.029	0.054**	0.027
Household Wealth	-0.049	0.051	-0.013	0.053	-0.139***	0.042	0.096**	0.039
HH education level	0.018	0.081	-0.003	0.083	0.078	0.068	0.088	0.063
Age of household head	0.004	0.013	0.002	0.013	0.001	0.010	-0.012	0.009
Age of HH head sq.	0.000	0.000	0.000	0.000	0.000	0.000	0.000*	0.000
No. of children	-0.029	0.054	-0.005	0.057	-0.001	0.044	0.072*	0.041
Migrant main contributor	0.311**	0.139	0.522***	0.141	-0.005	0.121	-0.276**	0.110
Migrant makes decision	0.378**	0.193	0.485***	0.193	0.179	0.161	0.016	0.143
Family migration attitude	1.221***	0.221	1.239***	0.223	1.103***	0.239	0.149	0.216
Constant	-0.730	0.601	-0.660	0.614	-1.938***	0.514	-0.908*	0.473
Number of obs	938		938		938.		938	
LR chi2(20)	90.29		103.15		157.57		64.51	
Prob > chi2	0.000		0.000		0.000		0.000	
Pseudo R2	0.129		0.155		0.139		0.052	

*p<0.1, **p<0.05, ***p<0.01

7.2.2 Determinants of remittance expectation levels without interaction effects of private information

Having seen the major determinants of expectation status of individual items, we can now turn to what determines levels of remittance expectations. I do this first with estimates in absence of interaction effects from private information. As Table 7.2 shows the (*rho=0)* from the maximum likelihood estimates is weakly significant with *Prob > chi2 = 0.099*

Table 7.2: OLS and Heckman selections models estimating determinants of remittance expectations

	OLS		Heckman		Marginal Effects	
	Coef.	Std. error	Coef	Std.Error	Coef	Std.Error
***Outcome:* Levels of remittance expectations**						
Private information flow	0.019	0.023	0.023	0.024	0.015	0.023
Community dynamics						
Migrant performance	0.083***	0.025	0.06**	0.026	0.093***	0.026
Public information flow	0.117***	0.058	0.051	0.058	0.106	0.057
Kinship ties						
Migrant is head	0.531***	0.122	0.485***	0.126	0.551***	0.124
Migrant is spouse	0.670**	0.085	0.650**	0.087	0.673***	0.084
Migrant is son/daughter	0.417***	0.040	0.433***	0.042	0.430***	0.041
Migrant is an in-law	0.448***	0.061	0.448***	0.063	0.457***	0.061
Migrant is brother/sister	0.449***	0.038	0.468***	0.040	0.465***	0.039
Migrant is other relation	0.504***	0.041	0.501***	0.043	0.520***	0.043
Migrant is a friend	0.181*	0.110	0.175*	0.096	0.197**	0.094
Household characteristics						
Household wealth	0.007	0.022	0.012	0.023	0.005	0.022
HH level of education	0.049	0.036	0.051	0.037	0.057	0.036
Migration experience	0.008**	0.004	0.006	0.004	0.008**	0.004
Age of household head	-0.003	0.005	-0.004	0.005	-0.003	0.005
Age of hh hold head squared	0.000	0.000	0.000	0.000	0.000	0.000
Household size	0.044***	0.014	0.040***	0.014	0.016***	0.013
HH Contribution to movement	0.215***	0.073	0.202***	0.075	0.213***	0.072
Main decision maker	-0.080	0.103	-0.040	0.087	-0.081	0.083
Attitude to migration	0.113	0.157				
Constant	0.578**	0.280	0.834***	0.221		
athrho			-0.675***	0.215		
lnsigma			-0.321***	0.036		
rho			-0.588	0.141		
Sigma			0.725	0.026		
lambda			-0.427	0.114		
N. obs.	823		938			
F(19, 803)	30.26		Censored	115		
Adj. R-squared	0.404		Uncensored	823		
Root MSE	0.699		Wald Chi2(18)	540.51		

LR test of indep. eqns. (rho = 0): chi2(1) = 2.72 ***Prob > chi2 = 0.099;*** *p<0.1, **p<0.05, ***p<0.01

indicating some level of selection bias, though not a serious one. The table also show estimates from the OLS regression model and estimates of marginal effects from the

Heckman model to aid interpretation. See Appendix 7A for the formula used to estimate the marginal effects and Appendix 7B for the results from selection equation which estimates whether or not the household expect something from the migrant. I have omitted the results from the selection model, because it is not different from what we have already seen in the previous section as regards determinants of expectation status. Compared with the estimates from OLS, marginal effects of the Heckman model presents more upward estimates for all the significant variables except for kinship categories. Generally though, estimates from both models are a close. This is expected given the fact that the correlation between errors of outcome equation (ε_i) and selection equation (u_i) is significant only at 10% level, indicating a minimal impact of selectivity. Nevertheless I will mostly base my comments on the results from the Heckman selection model.

In the previous section we saw that kinship ties do not do particularly well in influencing expectation status. That is whether or not families expect something is not mostly determined by kinship ties. But once expectations are formed, kinship ties, be it close or distant, become quite important in determining the levels of remittance expectations in absence of interaction effect from private information flow. And among the kinship ties, families in which the migrant is a spouse, head of the household or other relation stand out as major factors determining higher levels of remittance expectations. For example, having a migrant who is a spouse raises the remittance expectation levels by about 67%, but just around 20% if the migrant is a friend. Interestingly, after spouse and head of family, other-relation comes as the next major factor with a marginal effect of about 52%. This perhaps could be a testimony of the strength of bonds between uncles and aunts on one hand, and nephews and nieces on the other in Akan matrilineal lineage systems. As discussed in Chapter One, among the Akans, uncles and aunts have strong impacts on the livelihood decisions concerning nephews and nieces (Nunkunya, 2003).

As Section 7.2.1 showed, migrant performance is one of the few factors that consistently and positively determine the expectation status of families left behind for all the items. But the positive effect of migrant performance is not equally strong in the continuous choice of expectation levels. The marginal effect of migrant performance, 9.6%, lags far behind the marginal effects of any of the kinship variables, 46.5% of brother or sister, for example. Private information flow between the migrants and relatives at home is not significant both

in the selection into expectation status and expectation levels, confirming the observation from descriptive statistics. As observed by McKenzie et al (2007), and confirmed in the Chapter Six, the generally low and perhaps poor quality of information flow from migrants to relations at home could be an explanation for the insignificant effect of private information flow. And as we saw in Chapter Four, very few of the relatives left behind have current information about the type of job (37%) and salary (19%) of the migrants. This is the type of information one would expect to have major influence on levels of expectations, because it gives an indication of income and hence the financial ability of the migrant to fulfil the expectations of those left behind. Public information has a significant effect in the OLS model. But when selection effects are controlled, public information is not significant.

Pre-migration involvement of families in the movement of the migrant is measured by whether or not the family made a major contribution to meeting the cost of movement and/or the household was the main decision maker. A financial contribution to movement has positive effects on expectation levels. Obviously people would want some returns for their investment as the NELM makes us to understand. On the other hand, when the family only plays a major role in the decision making without any financial commitment, the effect is not significant. With the exception of household size most of the other household characteristics such as wealth, education level, age of household head and migration experience are neither significant in predicting the probability of expectation nor expectation levels. Household size has significant effect on household expectation as well as remittance expectation levels. This is also expected as there is a likelihood of more demands by various members in the family.

7.2.3 Determinants of remittance expectation levels with interaction effects of private information

The results from the previous section clearly indicate that in absence of interaction effects from private information flow, kinship ties, public information and past performance of migrants in the community have major significant effect on formation of remittance expectation levels. I run the same model, but with interactions between private information flow and key variables of interest such as past performance of migrant, public information, kinship ties and others that were found in the previous section to have significant effects on remittance expectations. The *ovtest* procedure did not reject the assumption of no omitted

variables (see Appendix 7B). Hence a simple OLS was used to determine the interaction effects. To ease comparative processes I have reproduced the marginal effects of the Heckman procedure in the previous section, and the percentage difference between estimates from the two type of models (i.e estimates with and without interaction effects of private information) as shown in Table7.3. The results clearly demonstrate that when interacted with private information flow, kinship ties, past performance of migrant and public information flow, though still have positive significant effects on determination of remittance expectations, have severely reduced effects on the latter. For example, on

Table 7.3: Comparing determinants of remittance expectations with and without interaction terms

	OLS Coef.	Std error	Heckman marg.eff.	Difference	Percent difference
Private information	-0.380***	0.051	0.015		
Community dynamics					
Migrant performance * private information	0.001***	0.000	0.093	-0.092	-98.41
Public information flow* private information	0.079***	0.018	0.106	-0.027	-25.13
Kinship ties					
Migrant is head* private information	0.165***	0.038	0.551	-0.386	-70.04
Migrant is spouse* private information	0.176***	0.026	0.673	-0.497	-73.83
Migrant is son/daughter* private information	0.090***	0.013	0.430	-0.340	-79.13
Migrant is an in-law* private information	0.113***	0.020	0.457	-0.344	-75.34
Migrant is brother/sister* private information	0.097***	0.012	0.465	-0.368	-79.14
Migrant is other relation* private information	0.136***	0.014	0.52	-0.384	-73.93
Migrant is a friend * private information	0.049	0.033	0.197	-0.148	-74.91
Household characteristics					
Household wealth	0.001	0.028			
HH level of education	0.043	0.044			
Migration experience	0.006	0.005			
Age of household head	-0.003	0.006			
Age of household head squared	0.000	0.000			
Household size	0.055***	0.017			
HH Contribution to movement * private information	0.049**	0.023	0.213	-0.164	-76.94
Main decision maker* private information	-0.058**	0.026	-0.081	0.023	-28.62
Attitude to migration* private information	0.159***	0.040			
Constant	1.368***	0.269			
N. obs.	938				
F(19, 918)	18.92				
Adj. R-squared	0.267				
Root MSE	0.933				

*p<0.1, **p<0.05, ***p<0.01

average, the effects of kinship ties on remittance expectations reduce by 74%, while past performance takes on a whopping 98% reduction on its effect. Even when family members left behind contribute financially to the movement of the migrant the decreasing effect of private information is still huge with about 77%. Private information flow now has significantly negative effect on remittance expectations. These results support the claim that remittance expectations are largely formed under conditions of low information flow. And that should families left behind be exposed to high levels of private or dedicated information from migrants, the influence of the past, or what goes on in community would not be so important factors in formation of remittance expectations.

7.3.1 Family intentions to support migration of its members

This section begins the analysis of effect of remittance expectations on migration intentions. As stated earlier in beginning of the chapter, the first part of this section investigates the implications of various forms of remittance expectations on intention to perpetuate migration. Table 7.4 presents the results from the first of the three main models of this section: the *probit* with Heckman selection model estimating the determinants of a family's intention to support migration of at least one member in the next five years. The likelihood test of independence of the outcome and selection equations is significant at 10% level (see Appendix 7C) indicating some level of selection effect, though not very strong. The output from the selection equation is not presented here since we have already discussed the factors that select families into having expectations or not in the previous chapter. The outputs from both *probit* and *heckprob* procedures are presented. And to aid interpretation I have added the estimated marginal effects from the selection model. See Appendix 7D for estimation procedure of the marginal effects.

Remittance expectation is a highly significant determinant of migration-support intentions of families, confirming the findings from expectation studies involving individual migrants (De Jong, 2000; van Dalen et al, 2005; Avato, 2008). However, for those left behind, kinship ties and public/general information seem to be more important than their own expectations in their decision to support migration of other members. As evidenced by the marginal effect estimates in Table 7.4 if the pioneer migrant is the head in the family left behind the desire to support migration of another member of the family increases by almost 30%, which is

Table 7.4 *Probit* with Heckman selection model estimating determinants of family intention to support migration of a member

	Probit		Heckprob			
	Coef.	Std. Err.	Coef.	Std error	Marg.eff-std	
Remittance expectations	0.215***	0.048	0.229***	0.055	0.083	0.019
Private information	0.051	0.041	0.054	0.034	0.019	0.012
Migrant performance	0.063	0.055				
Public information	0.236**	0.100	0.392***	0.096	0.141	0.033
Migrant is hh head	0.615**	0.247	0.820***	0.241	0.296	0.085
Migrant is a spouse	0.065	0.160	0.250	0.156	0.090	0.056
Migrant is a son/daughter	0.146*	0.079	0.072	0.073	0.026	0.026
Migrant is an in-law	0.061	0.115	0.109	0.112	0.039	0.040
Migrant is a brother/sister	0.095	0.073	0.103	0.071	0.037	0.026
Migrant is other relation	0.181**	0.088	0.168**	0.084	0.061	0.030
Migrant is a friend	0.073	0.154	-0.005	0.163	-0.002	0.059
Household wealth	0.046	0.039	0.039	0.032	0.014	0.012
HH level of education	-0.149**	0.063	-0.132**	0.056	-0.001	0.001
Migration experience	-0.005	0.007	-0.005	0.007	-0.002	0.002
Age of household head	-0.004	0.003	-0.001	0.003	-0.047	0.020
Household size 15-35	0.025	0.029	0.033	0.026	0.012	0.010
children	-0.048	0.042	-0.052	0.038	-0.019	0.014
Migration attitude	0.344	0.217	0.046	0.267	0.017	0.096
_cons	-0.170	0.415	-0.429	0.414		
	NO. of obs	937	No. of obs	938		
	LR chi2(18)	86.11	Censored obs	115		
	Prob > chi2	0.0000	Prob > chi2	0.0000		
	Pseudo R2	0.0718	Wald chi2(17)	75.82		

*p<0.1; **p<0.05; ***p<0.01

almost four times the marginal effect a unit increase in remittance expectations bring. In the same way, the effect of public information is also about twice that of expectations. These findings are generally expected. When the migrant is the head of the household, it is expected that he or she takes at least the wife and the children abroad. So it is not surprising that this kinship tie would have a highly significant and positive effect on intention of those left behind to support migration. Interestingly, the only other variable measuring kinship ties that significantly and positively affect household decision to support migration is other-kin. Having a pioneer migrant who is a niece, nephew, aunt or uncle increases the decision to

support migration by about 6%, much higher than effects from other relations such as brother/sister, son/daughter, etc. As detailed in Chapter One and echoed in previous discussions, there is usually a strong relational bond between individuals and their uncles, aunts, nephews or nieces in Akan matrilineal system. It is this bond that makes people left behind believe that, perhaps they can reap some support from the migrant in their decision to support other members of the family to migrate. Most probably, the financial support would come from the migrant who is the head of the family.

The insignificant effect of private information on intention to support further migration in the family should not be surprising. As previous sections revealed there is not much information flow between the migrant and those left behind. In addition, since this private information has a negative effect on expectations (as we observed in the previous section), people left behind perhaps do not take into consideration what they hear from migrants when deciding whether or not to support other members to migrate. They would rather depend on information from other sources such as the one that goes around in the community. Thus left to those left behind, public information is more important in their decision to support migration than what they probably hear from the migrants.

Other household demographic characteristics generally do not play significant role in intentions to perpetuate migration when other factors are controlled in both models, including those found to be significant at the descriptive level. Factors such as age of household head, number of children, and number of youths are all not significant even though they have the expected sign. The only household characteristic factor that has a significant effect is average level of household education. Surprisingly level of education, which has consistently been found to be positively associated with individuals' intention to migrate (van Dalen et al, 2005; Avato, 2008; Fourage and Ester, 2008), has a significantly negative impact on the likelihood of the household supporting migration in all the models. In Chapter Six, household average level of education was found to be a very important factor in determining information flow. Increasing levels of education enables the household to have access to information that perhaps becomes a discouraging factor for the household to perpetuate migration. These other studies have not considered remittance expectation and information flow in their models. Nevertheless, more studies with similar sampling strategy are needed to confirm this negative effect of education.

7.3.2 Factors influencing the strength of household migration-support intentions

From the preceding section, it is clear that remittance expectations, public information, and cases where the pioneer migrant is the head of the family are the most important factors that determine the likelihood of a family's intention to perpetuate migration. But what factors explain why some families want to support more than one person within the same period for international migration? Is it because they expect more benefit from migration than those who intend to support only a member within the same period? Table 7.5 presents the results from the generalised ordered *probit* technique used to answer this question. All the coefficients that are not significantly different across the categories of the dependent variable (intention to support 1, 2, 3 or more) are constrained to be equal, and allow only unequal coefficients, the deviations (migrant is a spouse, and migrant is a brother or sister) to vary. As explained in Chapter Four, these are the two variables for which the constant-threshold assumptions are rejected. I do the estimates for two conditions: no interaction with private information flow and interaction with private information.

Generally the results from the ordered *probit* estimates are consistent with *a priori* expectations, but also reveal some intriguing behaviours of the covariates at various categories of migration-support intentions. Taking the level of significant and standard error into consideration, one can see that remittance expectation is the most important factor that influences families to support higher number of people for migration. Higher values of remittance expectations increase the likelihood of a family supporting more members for international migration. However if this support is to be mainly financed by a migrant relations abroad then, the likelihood reduces by the same margin with every additional person the family at home of origin adds. Past performance of migrant is insignificant when it comes to determining the intensity of migration intentions. As indicated earlier, this should not be surprising, because the demonstrative effect of past performance of migrants can only affect the desire to support or send another member if this effect translates into expectations. In other words expectations of getting what has been achieved by other migrants are more important than the achievement itself in migration decisions.

Table 7.5: Results from generalised ordered *probit* model estimating strength of migration support intentions with and without private information interactions

	No interaction			With information interaction		
	Gamma 1		Gamma 2	Gamma 1		Gamma 2
	Coef	Std Error	Coef(Std Error)	Coef	Std Error	Coef(Std err)
Remittance expectations †	0.335***	0.058		0.080***	0.015	
Private information	-0.072	0.050		-0.344***	0.055	
Migrant performance	0.032	0.053		0.044	0.056	
Public information	-0.086	0.122		-0.100	0.121	
Migrant is hh head †	0.508**	0.226		0.114**	0.056	
Migrant is a spouse†	-0.121	0.207	0.518(0.242)**	-0.015	0.050	0.114(0.058)**
Migrant is a son/daughter†	0.162**	0.081	0.346(0.084)***	0.042*	0.021	0.095(0.023)***
Migrant is an in-law†	0.106	0.122		0.020	0.032	
Migrant is a brother/sister †	0.276***	0.076		0.076***	0.019	
Migrant is other relation†	0.213***	0.082		0.055***	0.021	
Migrant is a friend†	0.110	0.190		-0.001	0.063	
Household wealth	0.047	0.048		0.032	0.049	
HH level of education	-0.144*	0.081		-0.152*	0.081	
Migration experience	0.014*	0.008		0.015**	0.008	
Age of household head	0.004	0.004		0.004	0.004	
Household size 15-35	0.142***	0.036		0.153***	0.036	
children	0.027	0.050		0.028	0.050	
migraton attitudes	-0.372	0.317		-0.312	0.313	
Migrant will contribute	-0.341***	0.108		-0.361***	0.108	
Constant	-0.681	0.547		0.355	0.535	
Number of obs	620			620		
Wald chi2(21)	175.150			168.49		
Prob > chi2	0.000			0.000		
Log likelihood	-468.569			-470.62		

*p<0.1; **p<0.05; ***p<0.01; †Variables that interact with private information in the second model

One of the factors that should determine the success of potential migration is the level of human capital present in the family as this may increase the probability of not only getting a job, but also adapting well at the destination community. However, the negative coefficients of average level of household education and private information flow from migrants show that increase in these variables is likely to put the household at lower categories of migration-support intentions, echoing what was found earlier: negative impact of education on migration intention probabilities. Having increasing number of members within the ages 15 and 35 years significantly increase the likelihood of the household having intention to

support higher number of members for migration obviously because of the availability of potential members. Also as expected, all kinship ties increase the household's likelihood of supporting more members for international migration. But the marginal effects differ according to type of relationship as closer relations such as cases where the migrant is the head of household or a spouse has much higher marginal effects than other types. The effect of having a migrant who is a spouse is quite interesting as it is able to move the household from negative number to positive ones. Friendship is not a significant factor in this migration-intention behaviour.

However when kinship ties and expectations interact with private information from migrants, the effects of the former on strength of migration-support intentions are reduced even though still significant. Perhaps the most telling finding here is that under high level of information flow, the effect of private information on migration support intentions of those left behind is negative. This shows that with high levels of information flow the degree to which people desire to support migration could be moderated, or perhaps it could cancel out the highly positive effect of remittance expectations on these intentions as we see a drastically reduced effect of remittance expectations when interacted with information flow. The effects of kinship ties such as head of family, spouse, son or daughter are lower in determining the number of members a family wants to support for migration. As we saw in Chapter Six, kinship ties have negative effects on high levels of private information flow, a condition that can discourage a household from the desire to support more family members to migrate. What emerges from these two models is that remittance expectations, migrant performance and having a migrant who is a spouse or head of the family are quite strong in determining both the desire to perpetuate migration and the strength of this desire. But the strong effect of these factors can be effectively moderated if the families have access to high levels flow of private/dedicated information from the migrant. Thus the third major hypothesis is also confirmed.

From the descriptive analysis in Chapter Five it was clear that families that have remittance expectations and intend to support migration do generally have the better side of most of the household characteristics and kinship ties. All these variables are included in the multinomial *logit* model to find the main determinants of why a household would have expectations but do not intent to support migration of other members. The main reason for this exercise is to confirm the findings of the preceding section. Table 7.6 presents the

results from these estimates Group 1 (families that have remittance expectations and intentions to support migration of a member) is the base or reference group to which all the other three groups are compared.

Years of migration experience is significant in distinguishing the group of families that have remittance expectations but no intention to support migration from those families that have both remittance expectations and intentions. But the effects of years of migration is minimal as the odds of being in this group (expectation but no support for migration) only increases

Table 7.6: Result from multinomial logistic regression explaining choices of expectation-migration-support intentions

	Remit. expectations but no intention to support migration			**Intention to support migration but no remit. expectations**			**No remit. expectations & no intention to support migration**		
	Coef.	Std. Error	Odds	Coef.	Std. Error	Odds	Coef.	Std. Error	Odds
Past performance of migrants	-0.22**	0.11	0.81	-0.58***	0.21	0.56	-0.32	0.21	0.73
Household wealth	-0.08	0.07	0.93	0.12	0.12	1.13	0.07	0.14	1.07
Private information	-0.06	0.07	0.94	0.14	0.13	1.15	-0.06	0.14	0.94
Age of household head	0.01	0.01	1.00	0.00	0.01	1.00	0.02*	0.01	1.02
Years of migration experience	0.01**	0.01	1.01	-0.01	0.02	0.99	-0.06**	0.03	0.94
Public information about migrants	-0.38**	0.18	0.68	-0.99**	0.30	0.55	-1.53***	0.33	0.22
Household level of education	0.22**	0.11	1.25	-0.09	0.20	0.91	0.25	0.23	1.28
No. hh members age 15-35	-0.06	0.05	0.94	-0.11	0.09	0.90	-0.13	0.11	0.88
Number of children (< 15 years)	0.10	0.07	1.10	0.15	0.13	1.16	0.00	0.16	1.00
Attitude to migration	-0.15	0.49	0.86	-1.32**	0.60	0.27	-2.78***	0.47	0.06
Migrant is head of family	-1.30***	0.43	0.27	-1.68	1.06	0.19	-	-	-
Migrant is a spouse	-0.53*	0.28	0.59	-1.60**	0.77	0.20	-0.02	0.60	0.98
Migrant is a son/daughter	-0.39***	0.14	0.68	0.10	0.19	1.10	-0.05	0.26	0.95
Migrant is an in-law	-0.32	0.20	0.72	-0.42	0.40	0.66	-0.09	0.47	0.97
Migrant is a brother /sister	-0.46***	0.14	0.63	-0.32	0.24	0.73	0.36	0.22	1.43
Migrant is other relation	-0.58***	0.17	0.56	-0.37	0.30	0.69	-0.07	0.25	0.93
Migrant is a friend	-0.04	0.27	0.96	0.08	0.41	1.08	-	-	-
Constant	-0.18	0.79		0.27	1.26		0.58	1.28	

Base outcome (Reference group): Remittance expectations and intention to support or perpetuate migration)

Number of obs = 937

LR chi2(51) = 178.71

Prob > chi2 = 0.0000

Pseudo R2 = 0.095

*p<0.1; **p<0.05; ***p<0.01

by just 1% for every unit increase in years of migration. Another significant factor that positively distinguishes this group from the reference group is average levels of household education. Every unit increase in average education levels in the family increases the odds of the family having expectations but no intention to support migration by 25%. This really confirms the findings from the earlier sections of this chapter. In Chapter Six we found that education is one of the few variables that have a positive and significant effect on private information flow. And since high levels of private information has negative effect on both remittance expectations and intentions to perpetuate migration, it is not surprising that education has positive effect on not having any intention to support migration in spite of expectation of some benefits.

As expected almost all the other factors that have strong positive effect on likelihood of a family perpetuating migration, as observed in the preceding section, have negative effects on selecting families into the group that have expectations but no intentions to perpetuate migration. Performance of migrants has a negative impact of the likelihood of a family being the group of those who expect but have no intention to perpetuate migration; the decrease is about 19% for a unit increase in migrant performance at home. But prominent among factors that exhibit negative impacts are the ones measuring kinship ties. All the types of relationship with the migrant show that a unit increase in any of them leads to a decrease in the likelihood of a family being in the group that has remittance expectations but no intention to support migration, when compared with the reference group. If kinship ties are defined by a situation where the migrant is the head of the family, for example, the likelihood decreases by 73%, and 63% if the migrant is other relation such as nephew, uncle or aunt. Generally these results are in line with *a priori* expectations that all things being equal families back home would want to continue sending out members abroad based on the kinship ties they have with the pioneer migrant members.

All the factors that have positive effects on the likelihood of families being in the group that has intention to perpetuate migration, but with no remittance expectations are not statistically significant. However those that impact negatively on likelihood of being in this group are significant statistically. Families whose migrant performance is high are less likely to be in the group of families who have intention to support migration of a member with no remittance expectations than the reference group. This likelihood decreases by 44%. In the same way, those who have higher positive attitude to migration and have access to

higher levels of public information would not want to support migration for nothing. The only factor that significantly increases the likelihood of a family being in the final group (i.e no remittance expectation and no intention to perpetuate migration) rather than the reference group is increasing age of the household head. This is probably because older household heads would have older children who perhaps have accomplished their migration desires; or it could be that the children are too old to even entertain any migration desires. But factors such as flow of public information and general attitude towards migration show that a unit increase in either of these two significantly decreases the likelihood of any family being found in this group.

CHAPTER EIGHT

DISCUSSIONS CONCLUSIONS AND RECOMMENDATIONS

8.1 Introduction

Migration, especially international migration, in developing countries can involve the whole family. Whenever a member of the family migrates there are expectations of those left behind that the migrant would remit or do something for them to improve their livelihood conditions. For this reason and for their own wellbeing many young men and women risk their lives through dangerous routes to travel abroad with some help of kin, expecting to reap some benefits from migration. This means in every act of migration there are two sources of expectations: the migrant's own expectations and also the expectations of those left behind. Some limited work has gone into the former on how subjective expectations influence the decisions of individual potential migrants' migration choices. As regards the latter the literature does not have much to tell. The best that has been done is to use revealed data to look at observed flow of remittances and how socioeconomic and demographic characteristics of the family members left behind influence these flows of remittances. This approach therefore assumes that revealed or observed flow of remittances is in line with the expected flow of those left behind. But revealed data are inadequate in helping us understand subjective remittance expectations because they do not always represent what is expected, let alone how the expectations are formed. The consequence of this assumption is the neglect of subjective expectations that go into migration decisions of those who support the individual members to migrate. Thus even though these subjective remittance expectations are with us, the literature is often silent on how they affect migration decision and how they are formed. If subjective expectations inform or influence migration decisions, as they do with every other socioeconomic decision, then knowing how those who support migration of relations from their expectations is important to help us understand better the migration decisions individuals and households undertake. This is what this thesis was set out to do – to investigate the determinants of remittance expectations of families left behind and how these expectations influence migration decisions within the family.

For the rest of this chapter, I first discuss the main findings of the thesis and their implications in a broader context. I do this by first addressing the specific research questions

outlined in Section 1.3 of Chapter One and how the preceding chapters, especially chapters Six and Seven, have dealt with them. I start with reviewing the degree of support for the three hypotheses from each of the tests I have conducted in these two main chapters. While this may be viewed as somewhat of a formality, it will give us the opportunity to compare the results across chapters and other studies, a process that will yield some additional insights. The second section of this chapter builds on these insights and places the formation of subjective remittance expectations within a larger theoretical explanation of international migration namely, the new economics of labour migration and perpetuations theories of migration such as cumulative and network theories. I argue that the above analyses not only cast doubt on a core claims made by NELM and cumulative/network theories, but also place subjective remittance expectations at the centre or as a bridge between the so-called initiation and perpetuation theories of migration. These analyses give us insights into why understanding formation of remittance expectations can help us explain why some networks fail to generate full-blown perpetuation of migration, especially within the household. The third section of this chapter begins with notes on some implication for future research, and possible policy implications that can emanate from these results.

8.2 Discussions

From Chapters Five and Six we found that while descriptive statistics do not show much significant effect of kinship ties, demographic and socioeconomic characteristics on whether or not families receive remittances, the *probit* and Heckman selection models show the opposite. Kinship ties are more important in influencing migrant's performance than any other socioeconomic or demographic factors when it comes to receipt of at least some money for living expenses. Closer relations such as spouse and head of family expectedly stand a much better chance of helping those left behind to receive than more distant and unrelated people. They also stand a much better chance of having the migrant perform well. All these generally conform to what has been observed elsewhere (Arhinful, 2001; GLSS 2008). However when it comes to performance in items such as house or business investment, a household cannot rely only on kinship ties with migrant. It also has to have some wealth. The theoretical explanation for this has been that the wealthy are able to wield bargaining power to influence flows (Lucas and Stark, 1985). This would help the migrant allocate money meant for living expenses into investment in housing and business. This also

shows that the influence of kinship ties on observed flow of remittances or performance is mostly limited to monetary transfers for living expenses.

Generally the lower levels of explanatory power of the models, notwithstanding the cautions attached to interpreting the R-squared of *probit* models, perhaps also confirm that when it comes to remittance flow and migrant performance, socioeconomic and demographic characteristics of family members left at home of origin have limited influence. A lot also has to do with the socioeconomic conditions of the migrant in the destination country, which unfortunately are not included in the analysis. But as stated earlier, and echoed by Tsikata (2006), those left at home do not care much about that; all that they know is that their migrant relations have not been able to remit or perform as Johnny has been doing within the same period. In other words migrant performance, as long as those left behind are concerned, has to do with kinship ties and socioeconomic conditions at home, perhaps much more than those abroad. If observed receipts of remittance and migrant performance at home of origin is greatly influenced by type of kinship ties and if subjective remittance expectations are influenced by past events, then all things being equal, one would expect that relationship of the migrant to the household will be a key factor in determining level of remittance expectations. However the extent to which past performance can influence remittance expectations is most likely to be checked by knowledge of some socioeconomic conditions of the migrant, the private information flow, especially. This is what the second part of Chapter Six set out to do.

Family members left behind have two sources of information about their migrant relations abroad. One is the information through communication with the migrants – private information flow, and the other is the information they gather through interactions with nonmigrant friends and relations at home of origin – public information flow. Remittance flow may come with communications of various forms. And this communication with migrant may reveal certain socioeconomic information that can encourage those left behind to form their own expectations. But increasing flow of remittances does not necessarily lead to increasing flow of information from the migrants. The results from the main models in the second part of Chapter Six show that the assumption of information flow accompanying remittance flow held by cumulative causation theories of migration may hold only to a certain extent – that is to the extent that, this information does not include economic factors such as employment status, type of job and salaries. In other words the flow of remittance

leads to the increasing flow of information only at the lower levels of private information flow. Even the kinship ties cannot enable families left behind to access high levels of information about the socioeconomic conditions of the migrant. To get the high levels of private information flow, families would have to rely on wealth and to some extent education. As explained earlier positive effects of wealth and education are not just the economic power to afford the communication cost, but also the easiness that migrants feel to communicate with these types of families as there is little fear of being asked to remit. If the members of the families left behind are not financially sound and do not have good level of education, then perhaps they just have to hope that with time they will be able to get some high levels of information about their migrant relations.

The positive effects of length of time (i.e years of migration) on private information flow contrasts the view that migrants may refuse to share information because being migrants for many years they might have had most of their close relations to live with them in the host nation, hence little or no urgency in the desire to exchange information with other relations at home who may be distant from them. It also refutes the argument that after many years migrants might just be so integrated with the culture of the host country that they may attach little or no importance to interactions with those left at home of origin (Morduch and Sharma, 2002). This positive effect may also not be because of the claim that no matter how long they have been away migrants still have strong link with those left behind in terms of sheer kinship ties (Young, 2007; Mazzucato, 2009), but probably with their peculiar long duration of remitting home (Bump, 2006). Migrants from Ghana may eventually reveal more and more private information especially if the purpose of these remittances involves investments such as housing and business that require more communication and monitoring. In other words if remittance flow interacts with years of migration, it has a potential positive effect of helping families left behind to get more private information from the migrant.

The fact that most of these characteristics, including the strength of kinship ties, do not significantly have any positive effects on flow of information from migrants, shows that no matter the strength of kinship ties, information flow from migrants to members left behind could most probably be explained by factors determined by the migrants themselves much more than those determined by any kinship ties people at home claim to have with migrants. That is migrants may have control of whether or not they should share information with those left behind. Looking at this finding from another angle, it might be expected, because

in addition to the problem of distance, there are other reasons why migrants do not share much information with those left behind. As we discussed in Chapter Two, people, including migrants, in the kinship network may refuse to share information in order to have some short- or long-run utility gains (Morduch and Sharma, 2002) or they may do so in order to increase their bargaining power (Nelson, 1970; Doss, 1996). When migrants take on these attitudes of noncooperation, the cost of obtaining the relevant information become increasingly expensive for those left behind to bear.

If the people left behind are not doing well in getting information about the socioeconomic conditions of the migrants, the private information, would they rely on information from friends and relatives in the community of origin – the general or public information? The result from Chapter Six tends to give affirmative answer to this question. About 72% of the families left behind try to get information about the migrants through other sources. *Probit* and OLS regression analysis of this behaviour shows that there are reverse effects of the most important factors except for kinship ties and migration years. Specifically, factors such as education and wealth that help families to get more and more private information from the migrants, reduce the probability of these families' relying on public information. On the other hand remittance flow which was found to have a negative effect on levels of private information increases the likelihood of household seeking information from other sources. One can therefore deduce that the more families are able to access information from the migrants themselves, the less they rely on migration information from nonmigrant sources or the general public in the community of origin.

With the flow of crucial information such as the economic conditions of the migrants lacking or being inadequate, it may be concluded that there would be some level of uncertainty about knowledge of migrant's socioeconomic conditions. Would information from the public sources, therefore becomes an important factor in the formation of remittance expectations? Would their inability to access crucial information on economic conditions of the migrants "push" them to rely on information reaching them from other sources in the community of origin to form their subjective remittance expectations? Also if the wealthy and the more educated families are more likely to know more about the migrants' conditions, and if knowing more about the migrant is most likely to temper high expectations with realism as hypothesized in this study, would it be fair to conclude that

wealthier and more educated families may have modest expectation levels? The answers to these questions were provided by Chapter Seven.

In the first part of Chapter Seven, I analysed relative importance of migrant performance, public information and kinship ties in the formation of remittance expectations conditioned on high and low flows of private information given various socioeconomic and demographic characteristics of the families left behind. What emerges from the Heckman models is that, in absence of private information, remittance expectations are mostly determined by kinship ties and community past experience of migrant performance in the community of origin. Migrant performance is the only factor that positively and significantly translates remittance expectation status into expectation levels. Families would use their experience of what migrant performance as a starting point in their decision to whether or not they should expect something. But once their expectation status is assured, families members left behind are influenced by other factors than past performance in their subjective formation of remittance expectation levels. These other factors are led by types of kinship ties people left behind have with the migrant. Kinship ties are the major factor on which people left behind rely to form their various levels of remittance expectations. And the levels vary significantly according to the type of relationship people have with the migrant. Families in which the migrant is much closer – household head and spouse, for example – have the highest marginal contribution to the expectation levels. The literature makes us understand that relationship define kinship obligations to towards one another (Brunie, 2009; De Varies, 2009, Mazzucato, 2009). And the strength of this relationship is quite strong in the formation of remittance expectation levels, especially in absence of interaction effects from private information flow. But the major explanation for this strong influence of kinship ties on remittance expectation should be provided by what we found in Chapters Six. In Chapter Six we found that past performance of migrants in the community of origin is mostly influenced by kinship ties much more than any other socioeconomic characteristics of those left behind. This experience with past flows of remittance or performance, together with what they hear in the community about the migrants, becomes the bases upon which they build their expectations.

Information flow is an important part of formation of expectations as reported in various economic and migration literature (Tegene et al, 2003; Curtin, 2003; Chen, 2006; McKenzie et al, 2007). The essence of adequate information flow is to enhance realistic expectations

that can predict actual occurrence of any phenomenon as people can use the current information to monitor, at least to some extent, how the migrant is doing economically and socially. From the interaction effects of the OLS model we find that should family members left behind be exposed to more private information about the socioeconomic conditions of the migrants the strong effect of kinship ties, past performance and public information on remittance expectation levels will be seriously checked, with average reduction in effect of about 74%. But is it private information that generates this decreasing effect on expectation levels? The main explanation is that private information does contain the real stories of socioeconomic conditions of the migrants. As we saw in Chapter One, irrespective of their qualification, a good number of Ghanaian migrants do engage in jobs that will be considered downgrading at home (Peil, 1995; Owusu, 1998). Mazzucato (2005) found that a good number of Ghanaian migrants in Netherland take up two hard jobs as cleaners and machine workers. Others live in not-so-good homes so that they are able to send something home every now and then. So if such stories should get to those left behind at home of origin, they put some reality check on the levels of remittance expectations.

However, from Chapter Six we noticed that information people get from migrants is not adequate as it mostly relates to social issues such as marital status, number of children, etc. Many of the people left behind do not even know the type of jobs migrants do in the destination country. For various reasons the literature indicates that most migrants do not tell their relations left behind much about how they make their money (Peil, 1995; Owusu, 2000). All this makes it quite difficult for people to get more private information about the migrants' socioeconomic conditions. Perhaps it is this difficulty that has made them resigned not to bother to "hear their stories." If people left at home do not have access to crucial information such as type of job of the migrants then the decreasing effect of private information on remittance expectations would not affect them. Those in the kinship network who may find it difficult to access information from the migrant will therefore resort to alternative sources of 'relevant' information such as public information and rely on their past experience of remittance receipts to form their remittance expectations. For these people Tsikata (2006) may probably be right to state that it does not matter whether the migrant is employed or not. Whether the stories do not come to them or whether they "do not care to hear any other stories," what is clear is that remittance expectations are largely formed with little private information, and therefore lacks the reality check which the latter can potentially contribute.

Expectations about remittance flows give us the opportunity to evaluate individual household's intention to continue migration process as an integral part of its livelihood strategies. From the cumulative theory of migration "each act of migration alters the social context within which subsequent migration decisions are made" and the improvement in livelihood conditions and relative deprivation of some families in the community through migration induce others to participate in migration (Massey et al, 1993). The basic assumption under this 'inducement' to participate in migration is that those left behind also *expect* or "hope they may be the fortunate ones to scale the barb fences successfully to the promise land where the pastures are green" (Tsikata, 2006). The intention of families left behind to support migration of other members was used as proxy for desire to perpetuate or participate in migration. And the strength of these intentions was measured by the number of people the family intends to support within five years. I then used *probit* and generalised ordered *probit* models to estimate effects of the remittance expectations on migration-support intentions and the strength of these intentions respectively. The main hypothesis was that remittance expectations are important in having positive influence on both the intention and the strength of intentions to perpetuate migration because people left behind only have low levels of information about the socioeconomic conditions of their migrant relations abroad. The third objective of the chapter was to explain why remittance expectations would not lead to perpetuation of migration in the household and other choices of migration-support intentions, using multinomial logistic regression.

The generalised ordered *probit* showed that when families really want to continue migration process in terms of supporting more than one of their members to migrate; it is not private information flow; it is not the human capital available, not their own positive attitude or even the assurance of financial support from migrant relations abroad that are important. The crucial factors are, however, network of kinship ties with migrants abroad and public information flow. It is not just any migrant but those who are either the head of the family the spouse of the household head. This is in line with the network theory of migration which suggests that once begun, what sustain migration process are the established interpersonal ties that "connect migrants, former migrants and non-migrants in origin and destination areas through ties of kinship, friendship and shared community of origin" (Massey et al, 1993).

Accompanying these ties is the assumption that there is a flow of information between migrants and relations left behind to facilitate and lower the risk of movement of the latter as well as providing enabling environment for monitoring the informal contract. However what has emerged from this chapter is that when ties people at home have with the migrant interact with this presumed private information flow from migrants the effects of these ties on perpetuation of migration is greatly reduced even though they still significantly have positive effect on intention to support migration. Avato (2008) observed that good information flow is much more an important factor in turning migration intentions to reality than expectations in terms of actual movement. That is improved and better information flow is an important factor in influencing intentions to migrate as it helps in reducing risks that otherwise migrants would encounter without crucial information. And perhaps this is what is emerging from this study with reduced effects of expectations and kinship ties when information from pioneer migrants is considered. Unfortunately not many of those left behind do get this adequate information as we observed. Hence kinship ties, subjective expectations and the public information in the community will perhaps continue to be the dominant factors people left behind will rely on to perpetuate migration.

In absence of private information from the migrants, a factor that has the potential of perhaps putting desire to perpetuate migration in perspective is education. Increase in average level of household education has significantly positive effect on selecting households into the group that have positive remittance expectations but no intention to support migration. This is a bit of a surprise because higher levels of education have consistently been linked to individuals' migration intention, and that international migration is selective of the educated (van Dalen et al, 2005; Avato, 2008; Fourage and Ester, 2008). But the models used in these studies hardly control for the effect of remittance expectations and information flow. We observed in Chapter Six that education is a key factor in determining higher levels of information flow from migrants to those left behind. It is therefore not far-fetched to conclude that having remittance expectations would lead to intention to perpetuate migration in households in which average levels of education is low and hence are unable to access higher levels of information about the socioeconomic conditions of the destination country. In other words remittance expectations would not lead to massive intention to perpetuate migration if those left behind have good average level of education and have adequate information. Also studies that have come up with this conclusion, and rightly so, involve the general population in which international migrant

households are generally found to be a selection of the educated and relatively wealthier than non-international migrant households. When analysis is limited to international migrant households, as I have done here, in an area where international migration is not limited to a selected few households but has become part of social norm, the selection effect of education that helped initiate migration, finally gives way. This is because, as the network theories and cumulative causation theories help us to understand, the cost of international migration becomes more and more affordable or appears to be so through networks. The seemingly decreasing cost makes it possible for families, including the less educated, that otherwise would not have participated in international migration, now think they could through their relational association with pioneer migrants. And therefore they would support members to migrate. But as we have seen from the study relational association, though it facilitates migration networks, does not necessarily lead to increasing flow of important information from the pioneer migrants. It is only education and wealth that do so. Families who are well educated will often not want to perpetuate migration, because their exposure to private information from pioneer migrants and real stories that come with this exposure, tells them it takes more than just subjective expectations and kinship ties with migrants to engage in international migration successfully.

8.3 Conclusions: Subjective remittance expectations - the centre of migration decision `theories

Be it a household or an individual decision process, the fundamental drive for migration is expectations – expectation of some benefits, because expectation of any kind is the fundamental source of action, an allocative principle in both the present and future (Young, 2007). Neoclassical economic theories view this decision process as a difference between individuals *expected* benefits and cost of movement, while the new economics of labour migration looks at the decision process as differentials in relative wealth in the community. Households participate in migration with the 'hope' or expectation of reaping "relative income gains" to improve their socioeconomic standings in the community (Massey et all, 1993). In this case if households or families feel relatively deprived they would express their level of deprivation in their subjective expectation of remittance flows, in what they think they ought to have in relation to others in the community. It is this expression that would

'propel' them to either begin (in the case of nonmigrant households) or continue (in the case of migrant households) migration as livelihood strategy. From the cumulative theory of migration "each act of migration alters the social context within which subsequent migration decisions are made." The changes in social conditions are basically brought about by improvement in livelihood conditions resulting in relative deprivation of some families in the community. And aided by reduction in cost through network connections, these changes in social context further induce others to participate in or continue the migration process either as individuals or households *(Ibid*). The basic idea under this 'inducement' to participate in migration is that those left behind also *expect* to gain something and hence their support for a member with the "hope they may be the fortunate ones to scale the barb fences successfully to the promise land where the pastures are green" (Tsikata, 2006). So expectations form the core of migration behaviour.

As discussed extensively in Chapter Two, very few empirical works have incorporated expectations in the study of migration decisions and the few that have done so have not investigated the exogenous determinants of subjective remittance expectations. So if we do not know much about the central motivator of migration movements, how can we deal with it in terms of predicting the flow and the quality of the flow? I have shown that the expectations people left behind have are largely influenced by past performance, public information and mere kinship ties, and not private information from the migrants. Unfortunately most of those who still want to support migration are the ones influenced by this low level of information flow. The essence of adequate private information flow from migrants is to enhance knowledge of real situation at the destination country, at least to some extent, how the migrants do economically and socially and thereby acquaint themselves with the conditions of the destination. The diminishing effect of private information flow on expectations and intention to support migration could be due to the fact that people at home get to know more about the reality of what a potential migrant is likely to face and hence a need to put any decision to further support migration in perspective. Otherwise the support people give is based on guesses of what they can get.

The centrality of expectations in socioeconomic decisions makes us wonder why household migration decision studies have paid very little attention to remittance expectations. This study expands our understanding about migration decisions as regards the role plaid by subjective remittance expectations. The study also expands our understanding about how

these expectations are formed. In doing so the study comes up with a simpler way of estimating expectations than the traditional Manski model.

8.4 Recommendations

Investigation into formation of subjective expectation are yet to take firm roots in migration studies, in spite of the fact that these expectations form crucial part in individual as well as household migration decisions. Some work has been done incorporating subjective expectations in the study of individual migration decision (McKenzie et al, 2007). What I have done is to extend this to household migration decision without following the tradition of Manski's elicitation of subjective probabilistic expectations (2004). As Delavande et al (2010) rightly point out, there is still a lot to do as regards coming up with a standardised methodology to measure subjective expectations. One way of doing this will be to compare elicitation of subjective remittance expectations in Manski's tradition with the one employed in this study. If the two are similar, then the method employed in this study saves a lot of time and constraints experienced when attempts are made to adopt Manski's method. The major task for future research, however, is to incorporate subjective remittance expectations in longitudinal research. This could be done at the household level by eliciting household subjective migration expectations and follow this over time to find how these expectations translate into observed migration behaviours. This has been found to work in internal migration (De Jong, 2000). But unlike internal migration, international migration involves lots of factors that are likely to prevent household from realising their expectations.

Hundreds of young men and women use various means, including dangerous ones, to travel abroad for 'greener pastures'. Together with their family members left behind they have their own formed subjective expectations of what they hope to reap from these movements. Various policies have been developed at home of origin to inform households and individual potential migrants to discourage them from supporting or embarking on unnecessary movements. At the destination country such has been the idea that immigrants are desperate people who as Massey (2006) puts it "unless they are forcibly blocked or at least strongly discouraged, will surely improve their lot by moving to developed countries." Such policy approach has been informed by the neoclassical economic approach to explaining international migration decision. With the relative deprivation being at the centre of their

arguments, the new economics of labour migration and cumulative theories also make policy makers think of migrants or immigrants as people who move because they cannot achieve the subjective expectations in their countries of origin. That people move because of differences between economic development of the origin and the destination countries, and hence it is only by raising the cost of movement would unwanted immigrants stop coming. Such policy approach has failed as people continue to move through various means irrespective of the cost and dangers involved, because the assumptions underlying the theories are not plausible. The assumption is that there is an information flow that informs people about these dangers and the high cost involved in the movements.

From this study we have found that expectations that make people move are founded on inadequate information flow between them and migrants abroad. And the study has shown that if people are exposed to adequate information flow from the migrants the desire to support more members for further migration reduces. In fact this information flow even reduces and puts expectations in a more realistic perspective. If subjective expectations are heavily influenced by past events and kinship ties, then the decision to continue migration process in the family is difficult to be checked. This is because those left behind would not see any justification for not continuing to support members to migrate from the family, if they know that pioneer migrants had the same or even lower qualification before his or her departure. On the other hand if subjective remittance expectations are heavily influenced by current flow of information about the socioeconomic conditions of migrants then the possibility of perpetuating migration in the family is likely to be put in a more realistic perspective. It is therefore a suggestion from this study that emphasis should perhaps be put on encouraging migrants to communicate with their relations back home. This communication should not be limited to simple social issues but also the realities of economic livelihood at the destination. This will let them know the realities in the destination country. Migrant relations carry messages that those at home trust based on the kinship ties or bond they have with them. The information they carry is more powerful than any information from the public or formal media sources. So Tsikata (2006) may be wrong; it is not that people left behind do not "care to hear the stories" but rather the stories have not been coming to them. And empirical results from this study have shown that should the stories come, and taken into consideration, people's subjective expectations would be either moderated or reduced and the consequent effect these expectations on migration desires would also be either reduced significantly or considered with realistic approach.

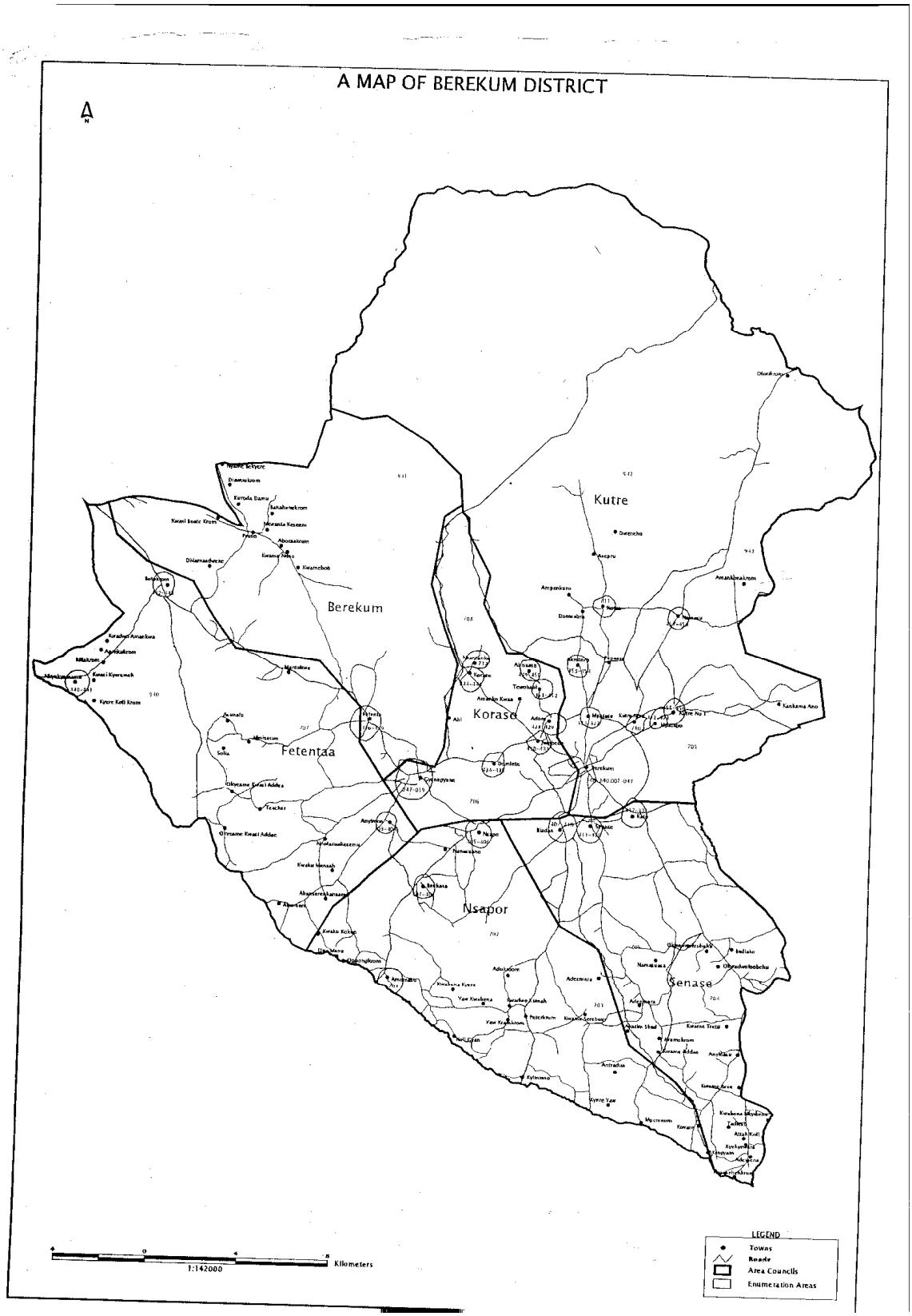
APPENDICES

APPENDIX 3A

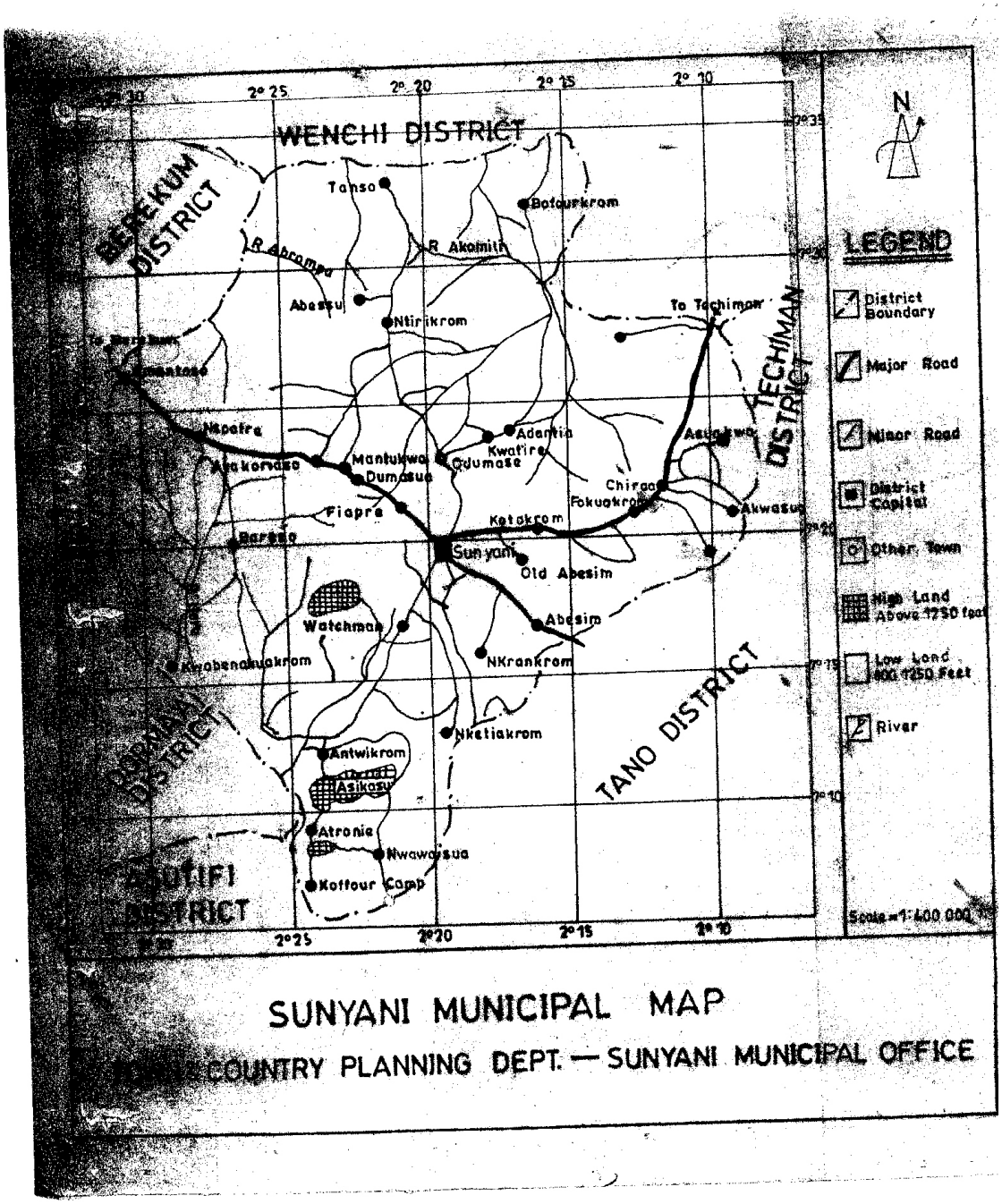
Appendix 3A: Ghana Map

Source: http://www.lib.utexas.edu/maps/africa/ghana_pol96.jpg

Appendix 3B Map of Berekum



Appendix 3C Sunyani District



APPENDIX 4

Appendix 4A: Cronbach test of internal consistency and factor analysis test for Unidimensionality

	Cronbach Alpha						Factor analysis		
	Obs	Sign	Item-test correlation	Item-test correlation	Average Inter-item correlation	Alpha	Eigenvalue	Difference	Proportion
Household wealth index									
Fridge	943	+	0.536	0.429	0.155	0.733	3.082	1.901	**0.471**
Television	943	+	0.461	0.345	0.160	0.741	1.181	0.612	**0.180**
Car	943	+	0.557	0.453	0.153	0.731	0.569	0.193	0.087
Bicycle	943	+	0.278	0.147	0.173	0.758	0.377	0.037	0.058
Telephone	943	+	0.407	0.285	0.164	0.746	0.340	0.110	0.052
Radio	943	+	0.313	0.184	0.170	0.755	0.229	0.012	0.035
cell phone	943	+	0.452	0.334	0.161	0.742	0.218	0.050	0.033
Fan	943	+	0.558	0.453	0.153	0.731	0.168	0.010	0.026
Stereo/Hifi	943	+	0.437	0.318	0.162	0.743	0.158	0.067	0.024
Sat. dish	943	+	0.447	0.329	0.161	0.742	0.091	0.023	0.014
Cooker	943	+	0.587	0.487	0.151	0.728	0.068	0.028	0.010
Computer	943	+	0.560	0.456	0.153	0.731	0.040	0.023	0.006
Tractor	943	+	0.273	0.142	0.173	0.759	0.017	0.007	0.003
Motor bike	943	+	0.424	0.303	0.163	0.745	0.010	0.008	0.002
Video deck	943	+	0.572	0.470	0.152	0.729	0.001	0.002	0.000
Microwave	943	+	0.513	0.402	0.156	0.736	0.000	.	0.000
Test scale	943				0.160	**0.753**			
Private information index									
Education	943	+	0.804	0.696	0.405	0.773	3.050	2.464	**0.862**
Marital	943	+	0.824	0.724	0.396	0.767	0.586	0.311	**0.166**
HH size	943	+	0.820	0.719	0.398	0.768	0.275	0.331	0.078
Job type	943	+	0.680	0.525	0.459	0.809	-0.056	0.423	-0.016
Employed	943	+	0.837	0.744	0.390	0.762	-0.098	0.119	-0.028
Salary	943	+	0.408	0.193	0.578	0.873	-0.217	.	-0.061
Test scale	943				0.438	**0.824**			
Migrant Performance index									
Money	943	+	0.586	0.373	0.315	0.697	2.037	0.909	**0.656**
House	943	+	0.682	0.500	0.278	0.658	1.128	0.886	**0.363**
Business	943	+	0.628	0.428	0.298	0.680	0.242	0.126	0.078
Years mon	943	+	0.621	0.418	0.301	0.683	0.115	0.295	0.037
Years hse	943	+	0.708	0.536	0.268	0.646	-0.179	0.060	-0.058
Years bus	943	+	0.622	0.420	0.301	0.682	-0.239	.	-0.077
Test scale					0.293	**0.714**			
Subjective remittance expectations index									
Money	943	+	0.583	0.346	0.217	0.581	1.591	0.231	**0.551**
House	943	+	0.637	0.417	0.198	0.553	1.361	0.939	**0.471**
Business	943	+	0.521	0.269	0.239	0.611	0.422	0.437	0.146
Years mon	943	+	0.577	0.339	0.219	0.584	-0.015	0.176	-0.005
Years hse	943	+	0.637	0.417	0.198	0.553	-0.191	0.089	-0.066
Years bus	943	+	0.575	0.336	0.220	0.585	-0.280	.	-0.097
Test scale					0.215	**0.622**			

Appendix 4B-1: Polychoric correlation matrix

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Fridge (1)	1															
Television (2)	**0.81**	1.00														
Car (3)	0.28	0.27	1.00													
Bicycle (4)	0.31	0.34	0.09	1.00												
Phone (5)	0.14	0.06	0.54	0.06	1.00											
Radio (6)	**0.70**	**0.74**	0.21	0.38	0.05	1.00										
Cell phone (7)	0.47	0.51	0.38	0.38	0.16	0.48	1.00									
Electric fan (8)	**0.69**	**0.74**	0.36	0.29	0.15	0.61	0.56	1.00								
Stereo/Hifi (9)	0.15	0.18	0.34	-0.04	0.15	0.08	0.30	0.32	1.00							
Satellite dish (10)	0.23	0.17	0.56	0.17	0.55	0.14	0.26	0.26	0.22	1.00						
Gas/electric cooker (11)	0.42	0.41	0.50	0.13	0.31	0.33	0.43	0.49	0.40	0.39	1.00					
Computer (12)	0.28	0.25	0.54	0.21	0.44	0.23	0.42	0.37	0.33	0.55	0.51	1.00				
Tractor/Plough (13)	0.13	0.03	0.46	0.12	0.47	-0.04	0.07	0.09	0.21	0.26	0.14	0.36	1.00			
Motor bike (14)	0.21	0.20	0.37	0.22	0.33	0.18	0.33	0.26	0.27	0.35	0.42	0.42	0.50	1.00		
Deck/DVD player (15)	**0.75**	**0.79**	0.27	0.32	0.15	0.70	0.51	0.72	0.22	0.23	0.49	0.31	0.04	0.22	1.00	
Microwave (16)	0.24	0.19	0.60	0.07	0.46	0.11	0.36	0.33	0.48	0.57	0.51	0.60	0.28	0.37	0.25	1.00

Appendix 4B-2: Proportion of variance explained in the polychoric A

k	Eigenvalue	Difference	Proportion
1	3.082	1.901	**0.471**
2	1.181	0.612	**0.180**
3	0.569	0.193	0.087
4	0.377	0.037	0.058
5	0.340	0.110	0.052
6	0.229	0.012	0.035
7	0.218	0.050	0.033
8	0.168	0.010	0.026
9	0.158	0.067	0.024
10	0.091	0.023	0.014
11	0.068	0.028	0.010
12	0.040	0.023	0.006
13	0.017	0.007	0.003
14	0.010	0.008	0.002
15	0.001	0.002	0.000
16	0.000	.	0.000

Appendix 4C: Detailed descriptive statistics of migrant performance index

Percentiles		Smallest		
1%	0	0		
5%	0	0		
10%	0	0	Obs	943
25%	0.102	0	Sum of Wgt.	943
50%	0.937		Mean	0.972
		Largest	Std. Dev.	1.088
75%	1.361	6.218		
90%	1.963	9.586	Variance	1.185
95%	2.477	9.688	Skewness	5.350
99%	4.073	17.424	Kurtosis	66.697

Appendix 4D: Detailed descriptive statistics of information flow index

Percentiles		Smallest		
1%	1	0		
5%	2	0		
10%	2	.4	Obs	943
25%	3	.5	Sum of Wgt.	943
50%	4		Mean	3.851
		Largest	Std. Dev.	1.137
75%	5	6		
90%	5	6	Variance	1.293
95%	5.2	6	Skewness	-0.387
99%	6	6	Kurtosis	2.669

Appendix 4E: Detailed descriptive statistics of household subjective remittance expectation index

Percentiles		Smallest		
1%	0	0		
5%	0	0		
10%	0	0	Obs	943
25%	1.813	0	Sum of Wgt.	943
50%	3.358		Mean	4.527
		Largest	Std. Dev.	4.643
75%	5.730	27.438		
90%	9.782	31.414	Variance	21.560
95%	13.749	33.884	Skewness	2.230
99%	21.818	34.391	Kurtosis	10.342

Appendix 4F: Basic statistics of performance estimates

	Before transformation	After transformation
Obs	939	939
sum of weights	939	939
Mean	0.972	0.828
Std. dev	1.080	0.535
Variance	1.1667	0.286
Skewness	5.162	0.250
Kurtosis	63.260	4.114

Transformation reduces the variance in the data.

Appendix 4G: Statistical tests for appropriateness of the instruments used instrumental variable regression

Summary results for first-stage regressions

Variable	Shea Partial R2	Partial R2	F(1, 920)	P-value
Remittance flow	0.054	0.054	**18.74**	0.0000

Underidentification test (Anderson canon. corr. LM statistic): 52.24

Chi-sq(1) P-val = 0.0000

Ho: matrix of reduced form coefficients has rank=K-1 (underidentified)
Ha: matrix has rank>=K (identified)

Weak identification test

Anderson-Rubin test of joint significance of

endogenous regressors B1 in main equation, Ho:B1=0

F(1,920)= 2.08 P-val=0.1496

Chi-sq(1)= 2.12 P-val=0.1454

NB: Anderson-Rubin stat heteroskedasticity-robust

Hansen J statistic (overidentification test of all instruments): 0.000

(equation exactly identified)

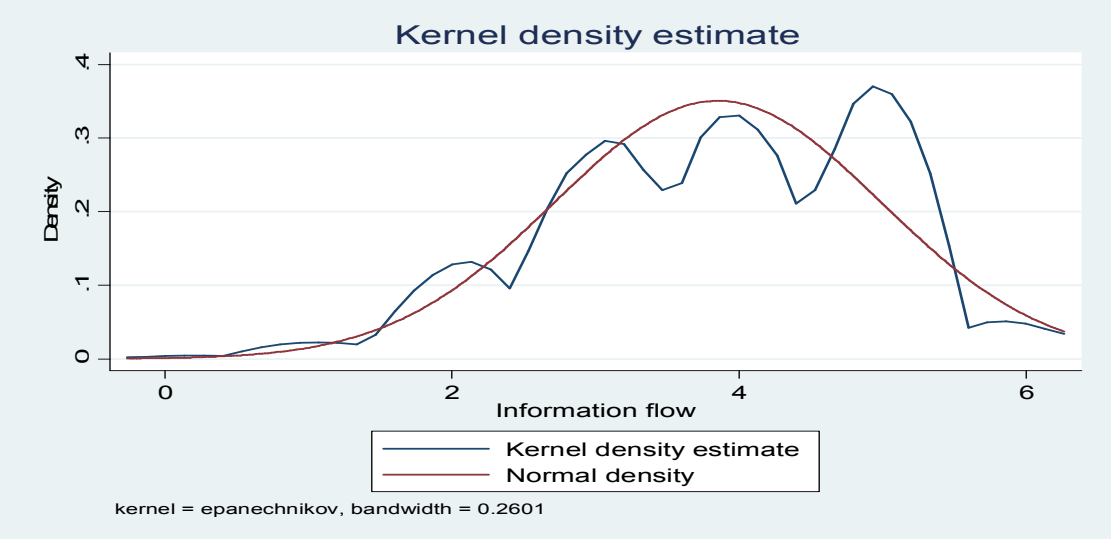
(equation exactly identified)

Instrumented: remittance flow

Included instruments: human capital household size children Years of migration, Age of household head, Age of household head squared, Migrant as main contributor, Migrant as decision maker, migrant is a head, migrant spouse, migrant is a son, migrant is an in-law, migrant is a brother/sister, migrant is a friend, household wealth,

Excluded instruments: attitude towards migration

Appendix 4H: Kernel Density plot of information flow



The kernel density plot demonstrates four peaks around 2, 3, 4 and 5 on the information flow index.

Appendix 4I: Testing parallel-lines assumption using the .01 level of significance

	Variable	P-Value	Constrained for Parallel line
	Migrant performance at home	0.000	Not imposed
Step 4	Migrant is head	0.696	Imposed
Step 6	Migrant is a spouse	0.612	Imposed
	Migrant is a son/daughter	0.009	Not Imposed
Step 7	Migrant is in-law	0.612	Imposed
Step 10	Migrant is a brother/sister	0.528	Imposed
Step 3	Migrant is other relation	0.788	Imposed
Step 2	Migrant is a friend	0.847	Imposed
	Education level	0.003	Not imposed
Step 9	Household wealth	0.562	Imposed
Step 14	Household size of age 15+	0.219	Imposed
Step 15	No. of children	0.020	imposed
Step 8	Years of migration	0.806	Imposed
Step 16	Years of migration squared	0.033	imposed
Step 11	Age of household head	0.231	Imposed
Step 12	Age of household head squared	0.293	Imposed
Step 1	Main financial contributor - migrant	0.940	Imposed
Step 5	Main decision maker -migrant	0.695	Imposed
Step 13	**Attitude toward migration**	0.205	Not imposed

An insignificant test statistic indicates that the final model does not violate the proportional odds /parallel assumption line.

Wald Test of parallel line assumption for the final model
chi2(32) = 32.40; Prob > chi2 = 0.4471

Appendix 4J: Predicted Probability for each category of information flow

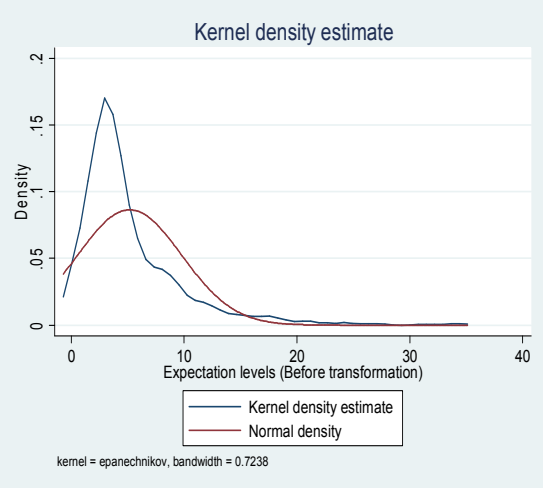
Variable	Obs	Mean	Std. Dev.	Min	Max
k1	943	0.337	0.121	0.087	0.805
k2	943	0.295	0.076	-0.045	0.513
k3	943	0.317	0.085	0.075	0.570
k4	943	0.051	0.037	0.000	0.225

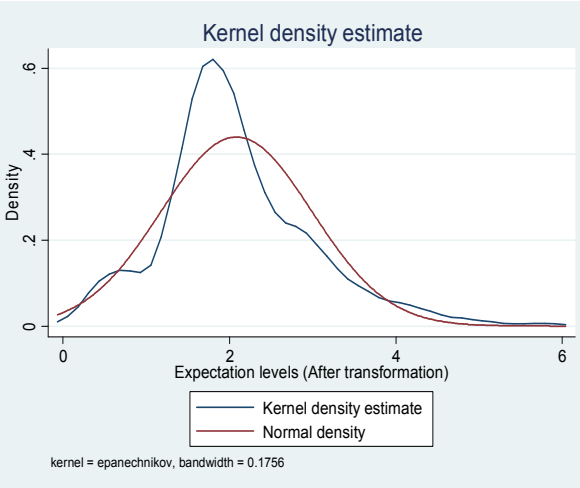
The average of predicted probabilities of the four categories of the response variable (current information flow) correspond to the original sample distribution, indicating that there is no negative in-sample predicted probabilities. Hence the model is appropriate.

Appendix 4K: Test for multicollinearity

	VIF	Tolerance	Squared		Eigen value
Migrant is head	1.07	0.9351	0.0649	1	7.725
Migrant is a spouse	1.2	0.8324	0.1676	2	1.236
Migrant is a son/daughter	1.56	0.6409	0.3591	3	1.116
Migrant is an in-law	1.11	0.897	0.103	4	1.052
Migrant is a brother/sister	1.42	0.7034	0.2966	5	1.022
Migrant is other relation	1.15	0.8701	0.1299	6	0.932
Migrant is a friend	1.07	0.9331	0.0669	7	0.894
Household Size	1.59	0.6289	0.3711	8	0.854
Wealth	1.31	0.7632	0.2368	9	0.814
Information flow	1.06	0.9431	0.0569	10	0.555
Household education level	1.26	0.7936	0.2064	11	0.288
Age of household head	1.62	0.6167	0.3833	12	0.214
No. of children	1.12	0.8945	0.1055	13	0.123
Migrant main contributor	1.59	0.6275	0.3725	14	0.067
Migrant main decision maker	1.5	0.6654	0.3346	15	0.056
Family migration attitude	1.05	0.9561	0.0439	16	0.045
Mean	VIF			17	0.009

Appendix 4L: Distribution of Levels of expectation before and after square root transformation





Before

After

Appendix 4M: Test for omitted variables in OLS model without information interactions

Ramsey RESET test using powers of the fitted values of remittance expectations

Ho: model has no omitted variables

F(3, 915) = 3.87

Prob > F = ***0.0091***

Appendix 4N: Heckman selection model without identification specification

	Outcome equation		**Selection equation**	
	Coef.	Std error	**Coef.**	Std. error
Past performance	0.066**	0.026	0.233***	0.078
Private information flow	0.021	0.024	-0.064	0.052
Migrant is head	0.440***	0.124	*0.897*	0.484
Migrant is spouse	0.642***	0.088	0.200	0.224
Migrant is son/daughter	0.432***	0.042	-0.026	0.095
Migrant is an in-law	0.442***	0.063	0.082	0.161
Migrant is brother/sister	0.467***	0.040	-0.016	0.090
Migrant is other relation	0.501***	0.043	0.164	0.116
Migrant is a friend	*0.163**	0.097	0.189	0.201
Household wealth	0.016	0.023	-0.062	0.050
HH level of education	0.047	0.037	0.055	0.079
Years of migration experience	0.006	0.004	0.012	0.009
Age of household head	0.000	0.005	-0.004	0.011
Age of household head squared	0.000	0.000	0.000	0.000
Household size	0.040***	0.014	0.032	0.031
Contribution to migration	0.198**	0.075	0.101	0.178
Decision maker	-0.035	0.087	-0.310	0.190
Public information flow	0.054	0.062	0.380***	0.130
Attitudes	**-0.124**	**0.165**	**1.240*** **	**0.219**
Constant	0.882***	0.294	-0.498	0.557
/athrho	-0.714***	0.203		
/lnsigma	-0.316***	0.036		
rho	-0.613	0.127		
sigma	0.729	0.026		
lambda	-0.447	0.104		

LR test of indep. eqns. (rho = 0): chi2(1) = 2.46 Prob > chi2 = 0.1169

Attitude clearly identifies the selection of households that expect something, but it does not have any significant effect on expectation levels.

Appendix 4O: Test for multicollinearity

	SQRT VIF	VIF	Tolerance	R-Squared		Eigenvalue	Index
Remittance expectations	1.440	1.200	0.693	0.307	1	10.03	1.00
Past performance of migrants	1.320	1.150	0.755	0.245	2	1.16	2.94
Household wealth	1.310	1.140	0.765	0.236	3	1.09	3.03
Private information from migration	1.140	1.070	0.880	0.120	4	1.04	3.11
Age of household head	1.360	1.170	0.737	0.263	5	0.97	3.21
Years of migration experience	1.220	1.100	0.819	0.181	6	0.94	3.27
Public information about migrants	1.090	1.050	0.914	0.086	7	0.88	3.37
Household level of education	1.270	1.130	0.788	0.212	8	0.85	3.43
Number of household members age 15-35	1.150	1.070	0.872	0.128	9	0.62	4.02
Number of children under the age of 15 years	1.120	1.060	0.895	0.105	10	0.57	4.20
Attitude to migration	1.090	1.040	0.918	0.082	11	0.48	4.59
Migrant will contribute to support	1.110	1.050	0.905	0.095	12	0.35	5.37
Migrant is head of family	1.130	1.060	0.885	0.115	13	0.31	5.70
Migrant is a spouse	1.310	1.140	0.765	0.235	14	0.21	6.88
Migrant is a son/daughter	1.760	1.330	0.568	0.432	15	0.17	7.65
Migrant is an in-law	1.200	1.090	0.836	0.164	16	0.14	8.36
Migrant is a brother	1.760	1.330	0.568	0.432	17	0.08	11.14
Migrant is other relation	1.410	1.190	0.707	0.293	18	0.06	13.49
Migrant is a friend	1.070	1.040	0.931	0.069	19	0.04	15.34
Condition Number 33.6244					20	0.01	33.62

Eigenvalues & Cond Index computed from scaled raw sscp (w/ intercept) Det(correlation) 0.1286

Appendix 4P: Brant test for parallel assumption

	chi2	*p>chi2*	*df*
All	***25.42***	***0.147***	***19***
Remittance expectations	0.34	0.558	1
Past performance of migrants	0.55	0.46	1
Household wealth	0.01	0.904	1
Private information from migration	0.65	0.419	1
Age of household head	2.18	0.14	1
Years of migration experience	0.34	0.56	1
Public information about migrants	0.38	0.539	1
Household level of education	1.99	0.159	1
Number of household members age 15-35	0.21	0.647	1
Number of children under the age of 15 years	3.12	0.077	1
Attitude to migration	0.07	0.798	1
Migrant will contribute to support	0.02	0.899	1
Migrant is head of family	0.02	0.877	1
Migrant is a spouse	**4.75**	**0.029**	1
Migrant is a son/daughter	**5.82**	**0.016**	1
Migrant is an in-law	0.16	0.689	1
Migrant is a brother	0	0.977	1
Migrant is other relation	0.99	0.319	1
Migrant is a friend	0.69	0.406	1

A significant test statistic provides evidence that the parallel regression assumption has been violated. Using 0.05 level, the test shows that two variables (migrant is a spouse and migrant is a son or daughter violate the parallel assumption. Hence these two variables are not constrained in the model.

Appendix 4Q: Summary statistics of predicted probabilities for generalized ordered *probit model*

	Obs.	**Mean**	**Std. Dev.**	**Min**	**Max**
Support 1 family member	937	0.627	0.217	0.004	0.982
Support 2 family members	937	0.259	0.114	0.015	0.472
Support 3 or more members	937	0.115	0.152	0.002	0.921

The average of predicted probabilities of the three categories of the response variable corresponds to the original sample distribution, indicating that there is no negative in-sample predicted probabilities. Hence the model is appropriate.

Appendix 4R: Hausman test for independence of irrelevant alternatives (IIA) assumption

(b)	(B) full	(b-B) part	sqrt(diag(V_b-V_B)) Difference	S.E.
Past performance of migrants	-0.052	-0.048	-0.004	.
Household wealth	-0.031	-0.037	0.006	.
Private information from migration	-0.069	-0.063	-0.006	0.004
Age of household head	0.006	0.006	0.000	0.001
Years of migration experience	0.015	0.014	0.001	0.001
Public information about migrants	-0.197	-0.187	-0.010	.
Household level of education	0.228	0.229	-0.001	.
Number of household members age 15-35	-0.099	-0.097	-0.002	0.004
Number of children under the age of 15 years	0.158	0.156	0.002	.
Attitude to migration	0.079	0.041	0.038	.
Migrant will contribute to support	-2.568	-2.566	-0.002	0.001
Migrant is head of family	-1.283	-1.272	-0.012	0.026
Migrant is a spouse	-0.360	-0.355	-0.005	.
Migrant is a son/daughter	-0.432	-0.423	-0.009	0.028
Migrant is an in-law	-0.370	-0.369	-0.001	.
Migrant is a brother	-0.448	-0.447	-0.001	.
Migrant is other relation	-0.685	-0.676	-0.009	.
Migrant is a friend	-0.107	-0.106	-0.001	0.007

b = consistent under Ho and Ha; obtained from m*logit*

B = inconsistent under Ha, efficient under Ho; obtained from m*logit*

Test: Ho: difference in coefficients not systematic

chi2(18) = (b-B)'[(V_b-V_B)^(-1)](b-B)

= 0.27

Prob>chi2 = 1.0000

(V_b-V_B is not positive definite)

Hausman test of IIA assumption cannot be rejected in the model

Appendix 5

Appendix 5A: Mean years of migration and household size by age of hh head

Age of household head	Mean years of migration	Average household size
<=39	<=5	2.2
40-59	6-10	2.6
60+	11+	3.5
All	10.3	2.7

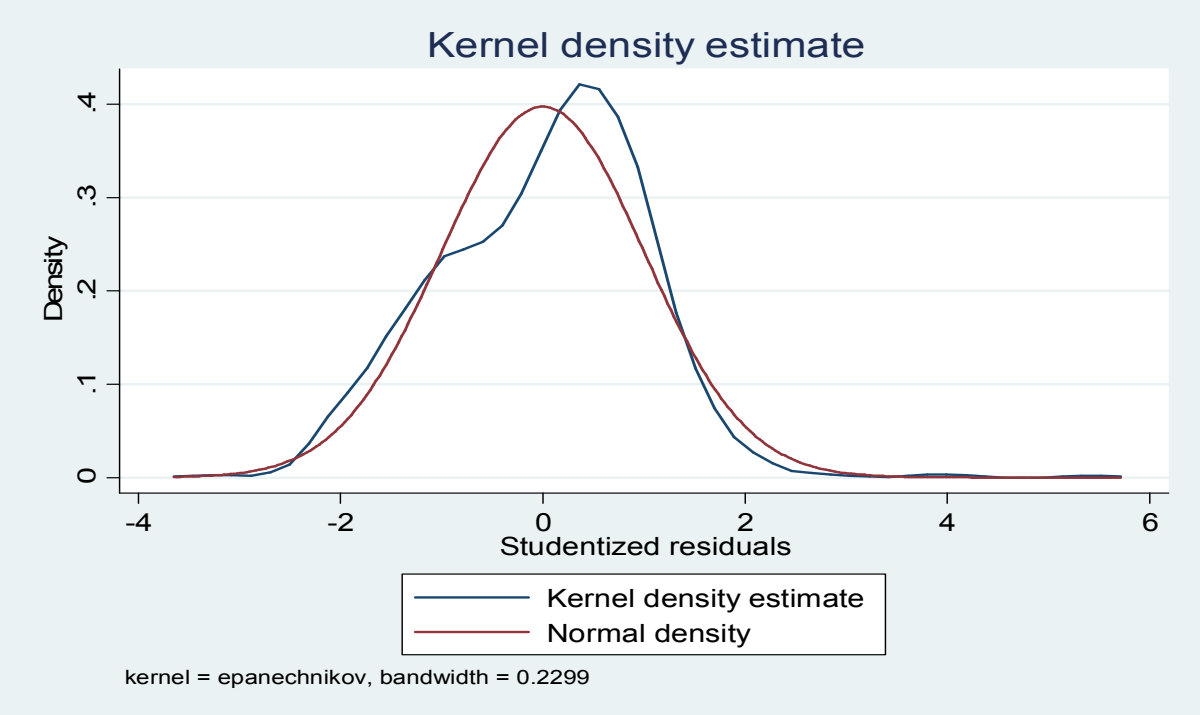
Average years of migration and households size expectedly increase with increase in age of household head.

Appendix Six

Appendix 6A: Test for multicollinearity

	VIF	Tolerance	Squared		Eigen value
Migrant is head	1.07	0.9351	0.0649	1	7.725
Migrant is a spouse	1.2	0.8324	0.1676	2	1.236
Migrant is a son/daughter	1.56	0.6409	0.3591	3	1.116
Migrant is an in-law	1.11	0.897	0.103	4	1.052
Migrant is a brother/sister	1.42	0.7034	0.2966	5	1.022
Migrant is other relation	1.15	0.8701	0.1299	6	0.932
Migrant is a friend	1.07	0.9331	0.0669	7	0.894
Household Size	1.59	0.6289	0.3711	8	0.854
Wealth	1.31	0.7632	0.2368	9	0.814
Information flow	1.06	0.9431	0.0569	10	0.555
Household education level	1.26	0.7936	0.2064	11	0.288
Age of household head	1.62	0.6167	0.3833	12	0.214
No. of children	1.12	0.8945	0.1055	13	0.123
Migrant main contributor	1.59	0.6275	0.3725	14	0.067
Migrant main decision maker	1.5	0.6654	0.3346	15	0.056
Family migration attitude	1.05	0.9561	0.0439	16	0.045
Mean	VIF			17	0.009

Appendix 6B: Kernel density estimates of residuals



Appendix 6C: Test for model fit

Ramsey RESET test using powers of the fitted values of rtperf

Ho: model has no omitted variables

F(3, 918) = 0.35

Prob > F = 0.7919

Appendix 6D: Heckman Selection Equation: Probability of household receiving at least one item

	Coef	Std. error
Migrant is head	0.908***	0.311
Migrant is a spouse	0.402**	0.198
Migrant is a son/daughter	0.634***	0.081
Migrant is an in-law	0.588***	0.157
Migrant is a brother/sister	0.474***	0.076
Migrant is other relation	0.344***	0.099
Migrant is a friend	-0.000	0.153
No. of adults	-0.077**	0.032
Household Wealth	0.023	0.047
Household education level	-0.189*	0.079
Age of household head	-0.024**	0.011
Age of household head sq.	0.000***	0.000
No. of children	-0.097*	0.053
Migrant main contributor	0.050	0.138
Migrant main decision maker	0.165	0.188
Family migration attitude	0.889***	0.185
Constant	1.128**	0.533
/athrho	-1.815***	0.203
/lnsigma	-0.664***	0.027
Rho	-0.948	0.020
Sigma	0.515	0.014
lambda	-0.488	0.020
F(17, 920) = 16.01		
Prob. > F = 0.000		
Adj. R-squared = 0.146		
Root MSE = 0.474		

Appendix 6Ei: Determining impact of remittance flow on information flow with IV-technique

	Private information flow				*Public information flow*			
	OLS		IV-Reg(2SLS)		*Probit*		IV-*Probit*	
	Coef.	Std. Error	Coef.	Robust std. error	Coef.	Std. error	Coef.	Robust Std. Error
Remittance flow	0.656***	0.139	0.901	0.553	0.104**	0.043	0.727***	0.176
Kinship ties								
Migrant is head	-0.061	0.187	-0.081	0.192	-0.181	0.223	-0.438**	0.213
Migrant is a spouse	0.093	0.126	-0.065	0.130	-0.039	0.161	-0.482**	0.188
Migrant is a son/daughter	-0.056	0.057	-0.067	0.060	-0.132*	0.072	-0.415***	0.095
Migrant is in-law	-0.156	0.091	-0.139	0.092	0.043	0.117	-0.203	0.127
Migrant is a brother/sister	-0.149***	0.054	-0.158***	0.054	-0.095	0.068	-0.331***	0.083
Migrant is other relation	-0.193***	0.061	-0.199***	0.061	-0.134*	0.074	-0.295***	0.074
Migrant is a friend	-0.218*	0.131	-0.210	0.139	-0.189	0.173	0.138	0.153
Household characteristics								
Household education level	-0.012	0.053	-0.008	0.053	-0.145**	0.065	-0.117*	0.064
Household wealth	0.154***	0.032	0.154***	0.032	0.009	0.040	-0.074*	0.045
Household size of age 15+	-0.003	0.022	-0.001	0.022	-0.093***	0.027	-0.063**	0.029
No. of children	-0.068*	0.035	-0.065*	0.035	-0.126***	0.053	-0.018***	0.042
Years of migration experience	0.038**	0.017	0.010*	0.006	0.023*	0.007	0.018***	0.006
Age of household head	0.006	0.001	0.007	0.007	-0.011	0.001	-0.008	0.009
Age of hh head squared	-0.000	0.000	-0.000	0.000	0.000	0.000	0.000*	0.000
Migrant bears travel cost	-0.002	0.095	-0.067	0.095	-0.018	0.117	-0.123	0.110
Migrant makes migration decision	0.041	0.123	0.041	0.123	-0.030	0.152	-0.090	0.139
Attitude	0.086	0.183			0.485**	0.205		
Constant	3.071***	0.386	3.071***	0.644	1.151**	0.448	1.049**	0.485
	No. obs. =938		No. obs. =938		No. obs. =938		No. obs. =938	
	F(19, 910) = 4.69		F(17, 920) = 3.61		LR chi2(18) = 57.52		Wald chi2(17) =116.02	
	Prob > F = 0.000		Prob > F = 0.000		Prob > chi2= 0.000		Prob > chi2= 0.000	
	Adj R2 = 0.070		Centered R2= 0.078		Pseudo R2= 0.051			

Appendix 6Eii: Test for exogeneity of remittance flow in information flow

	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
/athrho	-.0716348	.3140867	-0.23	0.820	-.6872333	0.5439637
/lnsigma	-.0115684	0.0230879	-0.50	0.616	-.0568197	0.03368
rho	-.0715125	.3124804			-.5962017	0.4959825
sigma	.9884983	.0228223			.9447644	1.0342

Wald test of exogeneity (/athrho = 0): chi2(1) = 0.05 Prob > chi2 = **0.8196**

2SLS

H0: Regressor is exogenous

Wu-Hausman F test: 0.25994 F(1,919) P-value = **0.61028**

Durbin-Wu-Hausman chi-sq test: 0.26524 Chi-sq(1) P-value = **0.6065**

Appendix 6F: Effect of remittance flow on low and high private and public information flow

	Private information				Public Information			
	Low		High		Low		High	
	Coef.	Std. Error	Coef	Std. Error	Coef	Std. Error	Coef	Std. Error
Remittance flow	**0.694*** **	**0.118**	**0.121**	**0.084**	**0.642*** **	**0.198**	**1.078*** **	**0.324**
Migrant is hh head	-0.219	0.182	-0.171*	0.092	-0.434	0.302	0.162	0.371
Migrant is a spouse	0.150	0.116	-0.138***	0.066	-0.188	0.202	0.402	0.286
Migrant is a son/daughter	-0.065	0.054	-0.129***	0.029	-0.130	0.093	-0.048	0.114
Migrant is an in-law	-0.050	0.077	-0.171***	0.055	0.097	0.145	-0.027	0.218
Migrant is a brother/sis	-0.076	0.047	-0.156***	0.031	-0.155*	0.081	0.199	0.131
Migrant is other relation	-0.123**	0.052	-0.168***	0.035	-0.040	0.091	-0.295**	0.134
Migrant is a friend	-0.098	0.111	-0.163**	0.082	0.565**	0.276	-0.307	0.361
Average education of HH	-0.063	0.047	0.051*	0.028	-0.144*	0.083	-0.224	0.118
Household wealth	0.026	0.029	0.022	0.017	0.052	0.051	-0.049	0.069
Household wealth	-0.015	0.019	0.022*	0.013	-0.093***	0.033	-0.083	0.052
No. of children	-0.100***	0.031	-0.008	0.020	-0.101	0.054	-0.179**	0.079
Years of migration	0.010	0.015	-0.001	0.011	-0.003	0.026	-0.004	0.047
Age of household head	0.003	0.007	-0.008*	0.004	-0.007	0.011	-0.004	0.018
Age of household head squared	0.000	0.000	0.000*	0.000	0.000*	0.000	0.000	0.000
Migrant bears travel cost	-0.020	0.087	0.020	0.049	0.051	0.151	-0.050	0.202
Migrant makes decision to move	0.114	0.113	0.010	0.064	0.157	0.198	-0.252	0.254
Attitude to migration	0.260	0.164	0.115	0.099	0.563**	0.275	-0.092**	0.394
Constant	2.572***	0.337	4.978***	0.217	0.415	0.580	1.014	0.897
	No. obs	343		587	No. obs.	587		343
	F(19,567)	3.610		4.100	LRchi2(19)	58.430		43.390
	Prob>F	0.000		0.000	Prob>chi2	0.000		0.001
	Adj. R2	0.127		0.091	Pseudo r2	0.082		0.110

**p<0.1; **p<0.05; ***p<0.01*

Appendix 6C: Correlation matrix of variables entered in the model

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1	Migrant is head	1														
2	Migrant is a spouse	9.5	1													
3	Migrant is a son/daughter	-0.07*	-0.16*	1												
4	Migrant is an in-law	-0.06	-0.06	-0.03	1											
5	Migrant is a brother/sister	-0.10*	-0.16*	-0.28*	-0.15*	1										
6	Migrant is other relation	0.07*	0.08*	0.16*	0.08*	-0.06	1									
7	Migrant is a friend	-0.02	-0.04	0.08*	0.06	-0.10*	-0.04	1								
8	No. of adults	-0.03	0.25*	0.34*	0.04	0.07*	0.07*	0.01	1							
9	HH Wealth	0.01	0.01	0.04	0.00	0.11*	0.05	-0.05	0.08*	1						
10	Information flow	0.03	0.07*	0.03	-0.02	-0.06	-0.07*	-0.07*	0.00	0.17*	1					
11	HH education level	0.03	0.03	-0.11*	-0.02	0.13*	0.04	0.02	-0.01	0.40*	0.05	1				
12	Age of household head	-0.07*	-0.19*	0.43*	0.02	0.18*	-0.06	0.07*	**0.53***	0.09*	0.00	-0.11*	1			
13	No. of children	0.04	0.08*	-0.14*	0.11*	0.09*	-0.03	0.02	-0.25*	-0.07*	-0.08*	-0.05	-0.19*	1		
14	Migrant bears costr	0.02	0.04	-0.21*	-0.04	0.10*	-0.04	0.01	-0.21*	-0.20*	-0.02	-0.08*	-0.13*	0.05	1	
15	Migrant main decision maker	0.02	0.01	0.10*	0.09*	0.13*	-0.02	0.00	0.01	0.11*	0.02	0.07*	-0.01	0.02	**-0.55***	
16	Family migration attitude	0.05	-0.02	0.06	-0.02	-0.05	-0.04	-0.10*	0.04	-0.01	0.06	-0.12*	0.05	0.02	-0.03	0

*p<0.05 or better

The correlation matrix shows that all the coefficients are below 0.5 except those of age of household head and number of adult children, and also main decision maker and financial contributor. But coefficient of 0.53 or 0.55 does not raise any serious problem as the multicollinearity test below also confirms.

Following Vance and Buchheim (2005), a test for collinearity tool suggested by Belsley, Kuh, and Welsch (1980) is used to assess presence of multicollinearity. This tool employs the *condition number* as an index of the global instability of the coefficients. A large condition number indicates collinearity and hence instability of the coefficients. But there seems to be some disagreement on the threshold for the definition of *large* condition number. While Stata Web Book advises a threshold of 10 for regression analyses, Belsley, Kuh, and Welsch (1980), and Vance and Buchheim (2005) have used a threshold of 30 as the cut-points. For this analysis the condition number is 29.8 (Appendix 5D). And non of the variance inflation factors (VIF) is greater than 10 or tolerance value less than 0.1 indicating none of the variables is a linear combination of other independent variables.

APPENDIX 7

Appendix 7A: Results from the Selection Equation of the main Heckman Model

	Coef	Std. Error	P-value
Migrant performance	0.235	0.079	0.003
Private information flow	-0.065	0.052	0.216
Public information flow	0.407	0.130	0.002
Migrant is head	0.809	0.488	0.098
Migrant is spouse	0.204	0.225	0.365
Migrant is son/daughter	-0.028	0.096	0.768
Migrant is an in-law	0.079	0.162	0.624
Migrant is brother/sister	-0.026	0.091	0.771
Migrant is other relation	0.156	0.117	0.183
Migrant is a friend	0.174	0.201	0.388
Household wealth	-0.058	0.051	0.253
HH level of education	0.050	0.080	0.530
Migration experience	0.013	0.009	0.155
Age of household head	0.004	0.012	0.744
Age of hh hold head squared	0.000	0.000	0.351
Household size	0.032	0.031	0.306
HH Contribution to movement	0.090	0.179	0.613
Main decision maker	-0.309	0.191	0.105
Attitude to migration	1.184	0.209	0.000
Constant	-0.603	0.561	0.282
/athrho	-0.675	0.215	
/lnsigma	-0.321	0.036	
rho	-0.588	0.141	
sigma	0.725	0.026	
lambda	-0.427	0.114	

LR test of indep. eqns. (rho = 0): chi2(1) = 2.72 Prob > chi2 = 0.0990

Appendix 7B: Test for omitted variables in OLS model with information interactions

Ramsey RESET test using powers of the fitted values of remittance expectations
Ho: model has no omitted variables
F(3, 915) = 0.30
Prob > F = ***0.8278***

Appendix 7C: Output from selection equation in the *heckprob procedure*

	Coef	std error
Migrant performance	*0.101*	0.061
Migrant is hh head	*0.790*	0.466
Migrant is a spouse	0.350	0.218
Migrant is a son/daughter	-0.070	0.085
Migrant is an in-law	0.155	0.156
Migrant is a brother/sis	-0.051	0.081
Migrant is other reln	0.122	0.097
Migrant is a friend	-0.024	0.182
Public information	***0.479***	0.115
Years of migration	0.008	0.009
Household size	0.044	0.027
Relation contributed to migration	***-0.321***	0.105
Constant	***0.591***	0.170
athrho	6.174	82.437
rho	1.000	0.001

LR test of indep. eqns. (rho = 0): chi2(1) = 3.27 Prob > chi2 = **0.0707**

Appendix 7D: Estimating the marginal effect from the Heckman model

In the case of Heckman model, since the coefficients of the variables that appear both in the selection and outcome equations are affected by the former, marginal effects are estimated for those variables with the following formula, following Sigelman and Zeng (1999):

$$\frac{\Delta E(Y|S>0,x)}{\Delta X_i} = \beta_i - \alpha\rho\sigma_\varepsilon\lambda(\alpha Z)$$

where *Beta* is the coefficient in the outcome equation, *alpha* is the corresponding coefficient in the selection equation, rho is the correlation between the errors in the two equations and sigma is the error from the outcome equation and $\lambda(\alpha Z)$ is a function of the inverse mills ratio. The first part of the effect measurement, given by β, measures the effect of determinants on the remittance expectation levels, while the second part, represented by $\rho\sigma_\varepsilon\lambda(\alpha Z)$ shows the effect of a change in each of the determinants on the probability expecting something from migrants.

Appendix X:Questionnaire

Good day/etc. My name is ----------. I am working on a project which seeks to understand the role of migration in family or household economic strategies. I am not working for the government or any agency in any country. This is an academic student project.

If you agree, I would like to ask you a series of questions about your opinion on migration. Please this is not a test or an examination and my questions do not have right or wrong answers. I only want to know about your family's decisions on migration. Please tell me what you honestly think, and remember, you are free to not answer questions or to stop the interview at any time. Your responses will help us to develop a better understanding of the needs and ideas of households/families and migration decisions. What you say will be kept confidential and will not be given to the government or any agency. You will not be quoted in any discussion or whatsoever. This is purely an academic exercise.

All together, this interaction should take about 30-45 minutes. Do you agree to go ahead?

Interviewer should sign in the appropriate box below:

Yes	
No	

If the answer to the above question is yes, the interviewer should complete

the following questions

1 Household code:

Code	
Name	
Phone number	
House address	

2.

100. Please what is your age, education level, marital status, type of job and relationship to the head of this household?

a	*b*	*c*	*d*	*e*	*f*
Sex	**Age**	**Relationship to the household head**	**Education level**	***Type of job***	**Marital status**

101. Please including yourself, how many people are in this family?

…….....

102. Could you please tell me the age, sex, relationship, education and employment status of the members of the household in Ghana?

a	*b*	*c*	*d*	*e*	*f*
First name	**Sex**	**Age**	**Relationship**	**Education level**	**Occupation(*write type of job)***
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

103. How would you describe the type of house you live in?

Free-standing house	1
Single-family apartment	2
Multi-family apartment	3
Bungalow	4
Self-built informal (mud) house	5
Other (*please specify)*…….	

104. How many rooms do you and your household occupy? ……

105. Does this household/family own the following items?

	Items	**Yes**	**Quantity**
1	Fridge		
2	Television		
3	Motor vehicle		
4	Bicycle		
5	Landline phone		
6	Radio		
7	Cell phones		
8	Electric fan		
9	Stereo/Hifi		
10	Satellite dish		
11	Gas/electric cooker		
12	Computer		
13	Tractor / Plough		
14	Motor Bike		
15	Video cassette recorder / DVD player		
16	Microwave		

106

a. Approximately how much does your family receive from all sources of income? .....

(*Use 106b if the respondent is not comfortable with 7a)*

106b. Approximately how much does your household/family receive per month from all sources of income (in GH□).

1	Nothing	701-800	9
2	0-100	801-900	10
3	101-200	901-1000	11
4	201-300	1000-1500	12
5	301-400	1501-2000	13
6	401-500	2001-3000	14
7	501-600	>3000	15
8	601-700		

107. Who is the main wage earner of this household? ……..

Migration Expectations

200. Please what is your general perception about migration of people from Ghana to other countries.

Very Bad	1
Bad	2
Good	3
Very good	4
Excellent idea	5
No comments	6

201. Generally, what are the main things you and your household/family expect from migration, and how long must a migrant take to fulfil these expectations? *Choose as many as applicable*

	Expected items	**Waiting period (in years)**
1	Nothing	
2	Remittances (Money for living expenses)	
3	To build a house	
4	Establish business	
5	Just the prestige attached to it	
6	A car	
7	To support other members of the family to migrate	
8	Other	

202. How much money do you expect migrant members to send you at least every year?

……

203. How did you come to know that you can get these things from migration? *Choose as many as applicable.*

1	Through personal migration experience
2	That's what migrants members of our family have been doing
3	That's what other migrants in this community do for their families
4	Friends and relatives from this community tell me we can get these things
5	Other (*please specify)*

204. Since when did you begin to know that you can get these things from migration?
…… (*write number of years)*

205. Would these expectations be the same if the migrant is not a member of your household?

Yes	1 *Go to question*
No	2

Why yes

……
……
…….

Why no

……
……
…….

Migrant members related to the Household

We have talked about people who used to live in this area, but now residing in other countries. Now if you allow me, can we talk about people you used to stay with or relatives who are now staying in other countries?

300. Do you have close relatives who stay abroad?

Yes	1
No	2 *Go to question 500*

301. How many? ……

302. Could you please tell me the age, sex, relationship, education, type of job, country of residence of about six of these migrants are related to you, and also whether or not you know how much they earn?

a	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*	*k*	*l*	*m*
First name / Christian name	**Sex**	**Age**	**Relationship to you**	**Years since he/she t left Ghana for the first time**	**Education level before he/she left Ghana**	**Occupation before he/she (*write type of job)***	**Country of residence now**	**Level of education now.**	**Marital Status**	**Size of family**	**Type of job**	**Salary**
2.												
3.												
4.												
5.												
6.												

303. What have these migrant members done for you? *Tick as many as applicable.*

	Item	**From which of the migrant members?**	**Waiting period before it started**
1	Nothing		
2	Money (*state amount*).....		
3	Built a house		
4	Established business		
5	Just the prestige attached to it		
6	Bought a car		
7	Supported migration of other members *How many ……*		
8	Other (*please specify)*		

304. Approximately how much do they send you per annum? .....

	Amount GH₵	**From which of the migrant members?**
1	Nothing	
2	0-100	
3	101-200	
4	201-300	
5	301-400	
6	401-500	
7	501-600	
8	601-700	
9	701-1000	
10	1000+	

305. On average how often do they send you something? .....

306. Approximately since when did they start doing all this? *Write the number of years ago.*
……

307. Generally what do you use money sent for? *Tick as many as applicable*

	Item
1	School Fees
3.	Utility bills(electricity bills, water bills)
4.	Building a House
5.	Business Investment
6.	Living expenses
7	To finance migration of other members
8.	Other (*please specify*)……

MIGRATION DECISION

You have told me about relatives who are staying in other countries. Now I would like to know what goes into your migration decisions.

400. Have you been involved in migration decisions of some relatives of yours?

Yes	1
No	2 *Go to question 500*

401. Could you please tell me the age, sex, relationship, education and employment status of the relatives in whose migration decisions you were involved?

a	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*	*j*	*k*	*l*
First name / Christian name of the migrant	**Sex**	**Age**	**Relationship to you**	**Education level before he/she left Ghana**	**Occupation before he/she (*write type of job)***	**Purpose of movement**	**Country of residence now**	**Level of education now.**	**Marital status**	**Size of family**	**Type of job**
1.											
2.											
3.											

402. Kindly give the first names, relationship, region/country of residence and contribution by relatives who helped raise resources for the movement of these recent migrants.

a	*b*	*c*	*d*	*e*	*f*	*g*	*h*	*i*
First name / Christian name	**Sex**	**Relationship to you**	**Education level**	**Type of job**	**Town/ Country of residence**	**Marital Status**	**Size of family**	**Type of job**
1.								
2.								
3.								
4.								
5.								
6. Who contributed most of the resources? ……..								
7. Who was the main decision-maker? …….								

403. If the decision involved you and other relatives as indicated above, how did you communicate with one another? *Tick as many as applicable*

1	Phone conversations
2	Emails
3	Letters
4	During festive gatherings
5	During funeral celebrations
6	Errands
7	Other (*please specify)*

Future Migration Strategies: Intention to perpetuate Migration

Now if you would allow me, I would like to know a bit about the future migration strategies of this household

500. Do you have any plans of sending another relation abroad in the near future?

Yes	1
No	2 *End the interview*

501. How many relatives are you planning to send abroad in the near future (say next five years).

a	*b*	*c*	*d*	*e*	*f*	*g*
First name	**Sex**	**Age**	**Relationship**	**Education level**	**Occupation (*type of job)***	**Country of destination**
1.						
2.						
3.						
4.						
5.						

502. Will the decision to send this relation abroad depend on the agreement and contribution of other relatives?

Yes	1
No	2

503. How are these people who will be part of the decision-making process related to you and where are they residing?

	a	*b*	*c*	*d*	*e*
	First name	**Relationship**	**Education level**	**Type of job**	**Region/country of residence**
1					
2					
3					
4					
5. Who will contribute most of the resources? ……					
6. Who will be the main decision-maker? …….					

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