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**Shared Growth in Ghana: Do migrant remittances have a  
role?**

**By**

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Abstract: The economy of Ghana has recorded modest net growth rates over the past decade. However, the current growth rates are inadequate to move the economy to a middle income status by 2015. Besides, not all benefited from the growth recorded so far and there is no doubt that the level of growth necessary to propel the country towards middle-income status cannot be achieved with the current levels of savings and investments within the domestic economy. The obvious issues are: how do we fill the savings gap and ensure shared growth? And how do we ensure that growth trickles down to the poor? The study believes that migrant remittances can serve the dual purpose; fill the savings gap, ensure shared growth and poverty reduction.

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# Shared Growth in Ghana: Do Migrant Remittances Have A Role?

## 1. INTRODUCTION

The economy of Ghana has been growing at an annual average of 4.4% over the past five years. Real GDP growth increased from about 4.4% in 1999 to 5.2% in 2003, after decreasing to about 3.7% in 2000 but recovered significantly to 5.2% in 2003. However, with the population growing at an average rate of about 2.7% over the same period, real GDP growth in per capita terms averaged about 1.7%. This is certainly too low to propel the country towards middle-income status by 2013 as proposed by government. Even if Ghana's population growth rate averages about 1.5% annually, real GDP growth will still have to grow above 8% annually if we are to move from the current \$350 per capita GDP to about \$1000 in 10 years. There is no doubt that the level of growth necessary to propel the country towards middle-income status in the next 10 to 15 years cannot be achieved with the current levels of savings and investments within the domestic economy. Between 1990 and 2001 gross domestic savings averaged about 7.7% whilst gross national savings averaged about 13.6%. Gross domestic investments averaged about 21.3% over the same period (WDI, 2004). In order to achieve the desired level of growth, savings will have to increase above 15% per annum while investment averages around 27% per annum.

The relatively modest net growth rate achieved over the past decade has not significantly reduced poverty in Ghana, particularly, in the rural areas and the three northern regions in Ghana. Although it is expected that increasing output growth will translate into improvement in the livelihood of the poor, the effectiveness of this 'trickling-down' is greatest if growth is driven by the sectors that employ most of the poor, which in the case of Ghana is the agricultural sector. Estimates of poverty in Ghana are obtained from 4<sup>th</sup> Ghana Living Standards Survey, (GLSS 4, 1999) and showed that the level of poverty had declined from the early 1990s level of about 52% to about 40%. Coulombe and McKay (2003) showed that the decline in poverty during the period 1991-98 could mainly be found in Accra and the rural forest where average income levels have increased and inequality fallen. The rest of the country however experienced little change in both their poverty level and average incomes and in fact experienced worsening inequality over the period.

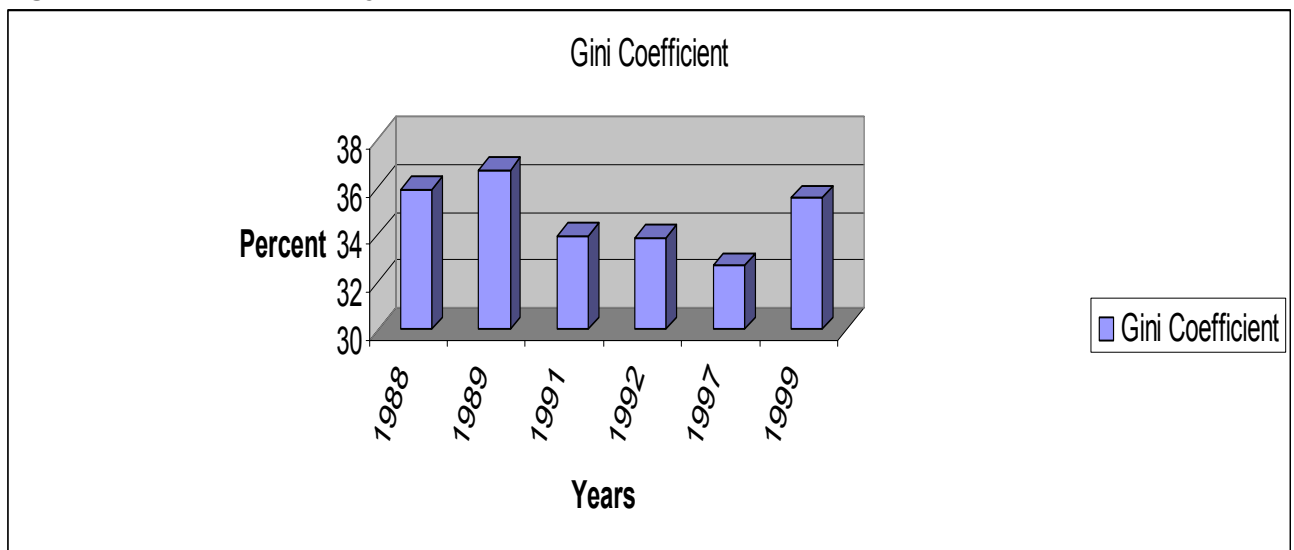
More recent data on poverty in Ghana is from the UNDP's Human Poverty Index (HPI) which measures deprivations in the three basic dimensions of human development<sup>2</sup> captured in the UNDP Human Development Index revealed that the level of national deprivation has declined between the period 1997/8 and 2002/3 (UNDP Human Development Report, 2004). The Ghana Human Poverty Index declined from 51.7% to 41.0% between 1997/8 and 2002/3. This implies that the proportion of the population deprived was 51.7% in 1997/98 and in 2002/3 it had declined to 41.0%. However, the same cannot be said of the ten regions of Ghana; whereas the level of deprivation in

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<sup>2</sup> The three dimensions are: long and healthy life, knowledge and a decent standard of living

Accra increased, that of the nine regions declined (UNDP/ISSER, forthcoming). The Ashanti region recorded the highest improvement in Human Poverty, followed by the Eastern region, then by the Central region. Although Greater Accra had the lowest HPI, it recorded deterioration in its level of deprivation between the period 1997/8 and 2002/3. Data on income inequality is not up to date, with the most current year being 1999. Figure 1 shows that inequality<sup>3</sup> declined between 1992 and 1997 but increased significantly between 1997 and 1999. The trends observed above for the sectoral growth performances suggest it is unlikely that inequality has reduced significantly in more recent years. The sectors that employ the majority of the very poor in Ghana are not growing fast enough to catch up with the other sectors.

**Figure 1: Income Inequality**



Source: World Institute for Development Economic Research Database

Given the relatively low net growth rates recorded in Ghana over the past decade and the widening inequality, the key obvious questions are: (i) how do we fill the savings and investment gap in Ghana, and (ii) how do we ensure that inequality between Ghana and other developed countries are reduced? (iii) How do we ensure that economic growth is shared among the population? (iv) Will migrant remittances play a major role in addressing these issues and ensure that Ghana records shared growth? These issues will be the focus of the study. The study will specifically:

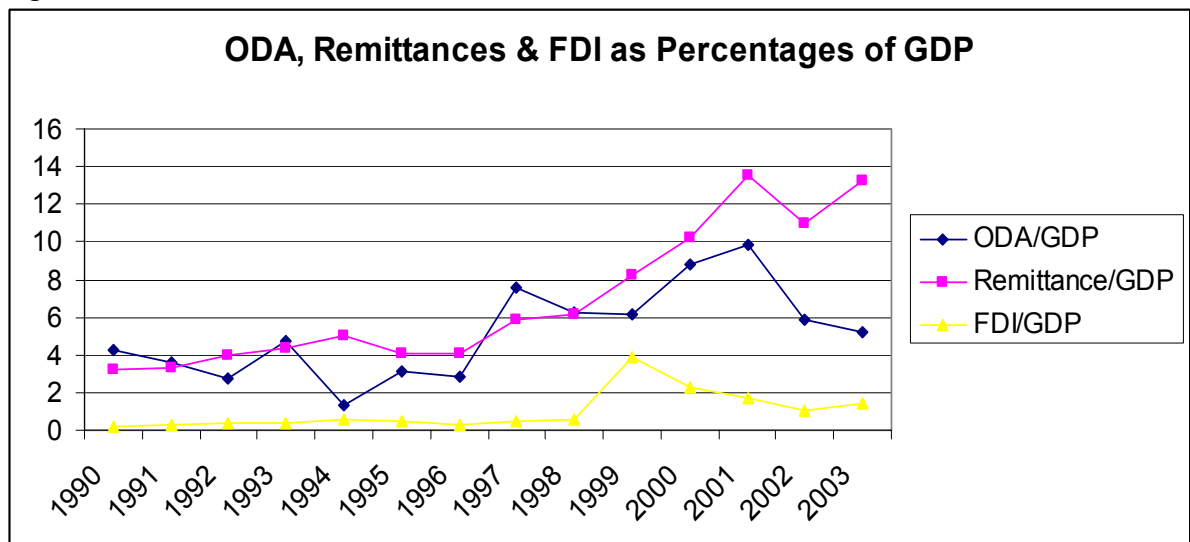
- The proportions of migrant remittances to Ghana that is saved or invested
- Investigate how remittances can be used to ensure shared growth and poverty reduction

<sup>3</sup> Using the Gini coefficient - The Gini Index measures the extent to which the distribution of income among households within an economy deviates from a perfectly equal distribution.

## 2. THE VOLUME AND SOURCES OF MIGRANT REMITTANCES

Migrant remittances have become an important source of income and foreign exchange for many developing countries. Remittance flows globally currently exceed USD\$100 billion which is higher than the value of official development assistance and these flows have great potential to generate a positive impact in migrants' home region. Remittances to developing countries amount to some \$65 billion, and this amount exceeds ODA of \$ 55 billion (Maimbo, 2003). An IMF report (2001) has indicated that migrant remittances are increasingly becoming a more constant source of income to most developing countries with a doubling of annual remittances between 1988 and 1999. Sander (2003) also reported that remittances have proved to be the most stable flow compared to ODA and to private capital flows. Similarly, Salimano (2003) notes that remittance flows have concentrated in a group of developing countries. In 2002, Latin America and the Caribbean had the highest level of remittances, totaling US\$ 25 billion, followed by South Asia with US\$ 16 billion and the Middle East and North Africa (MENA) with US\$ 14 billion. Sub-Saharan Africa had the lowest level of remittances amounting to US\$ 4 billion (with an annual growth rate of 5.2%).

Figure 2: Shares of ODA, Remittances & FDI to GDP

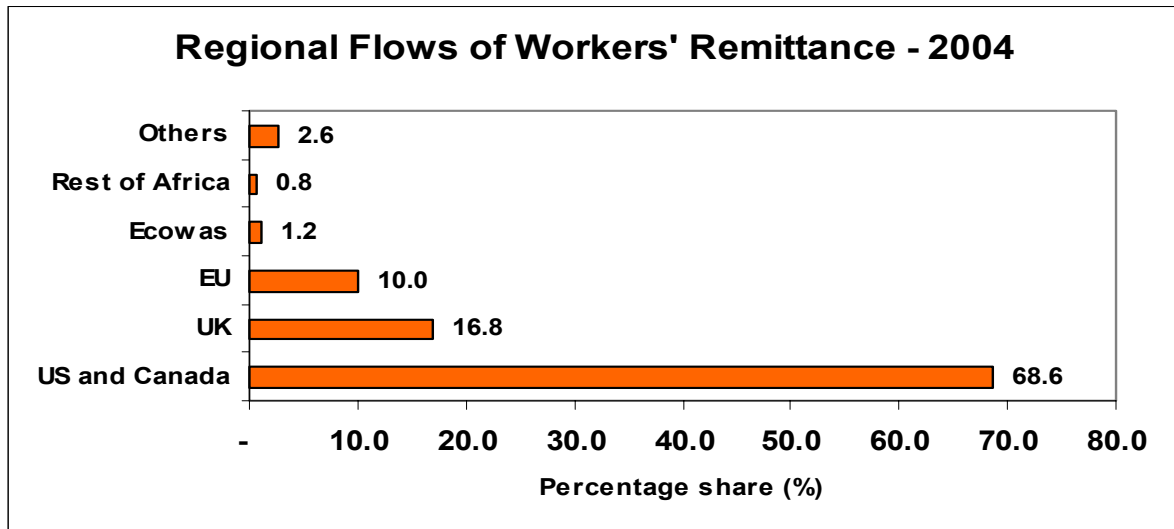


Source: Bank of Ghana

Migrant worker remittances have been a useful source of income to many Ghanaians, particularly in times of economic shocks and this is also evidenced by the proliferation of money transfer institutions in Ghana (both formal and informal) and the rapid growth in the volume of migrant remittances to Ghana. It has been argued that migrant remittances are becoming a potential source of foreign exchange and its magnitude exceeds the amount of ODA to Ghana. Data from the Central Bank of Ghana for instance shows that private inward remittances through the banks and other finance companies amounted to about \$ 1.4 billion in 2002 as compared to \$ 31 million recorded for the year 1999. The

2002 figure, we even consider to be lower than the actual figure as many migrants use informal mechanisms to send money. Figure 2 clearly indicates that the share of migrant remittances exceeds ODA and FDI and has been increasing consistently since 1990.

Figure 3: Sources of Private Inward Remittances (2004)



Source: Bank of Ghana

It is evident from Figure 3 that the USA and Canada are the most important sources of regional flow of remittances.

There are different transfer mechanisms available to migrants to send remittances, namely, banks, credit unions, small and large money transfer institutions such as Western Union, MoneyGram, hand delivery by the sender through a third party and other informal mechanisms. However, the choice of the method of transfer depends on several factors such as the amount sent, the legal status of the migrant, the cost of sending money through the legal channels, the existence of social networks or clubs, government regulation such as payments in the local currency to mention but a few. In Ghana, prior to the liberalization of the financial sector, the informal financial sector had been the major means through which remittances have been sent. However, the liberalization of the financial sector has made the informal sector less attractive since migrants try to balance higher transactions costs with lower risk.

The cost of transferring funds varies from one country to the other, from one institution to the other and also depends on the amount sent. According to a study by the Bank of Ghana (2004), transmissions by smaller (national) transfer companies currently cost between US\$1.50 to US\$3.00 for every US\$100.00. Meanwhile, the same service would attract charges ranging from 1.5% to 2.5% of the value when sent through a bank and between 2.0-3.5% in the case of major money transfer operators such as the Western Union. Thus, based on the fee structure, it can be argued that the banks and the smaller transfer companies are more competitive than the major companies. It is noteworthy that Ghanaian banks involved in the money transfer business apply charges for paying inward

remittances to recipients, particularly, if the recipient is paid in a foreign currency<sup>4</sup>. It is also worth mentioning that whereas banks use the inter-bank foreign exchange rates which tend to be lower, other financial houses use the forex bureau rates in converting remittances proceeds which are higher. Hence, the latter tends to be a more preferred option as far as recipients are concerned.

It is worth emphasizing that the transfer costs and the barriers have reduced over the years and this has partly contributed to the increase in the flow of remittances. Interestingly, the increase in the flow of migrant remittances to Ghana had occurred over a period where poverty has been on a decline. The decline in poverty has been attributed to the increasing inflow of migrant remittances. Remittances serve as a source of income smoothing in Ghana and households with inflows of such additional income have better welfare than households without migrant remittances. They are used both for consumption and investment purposes which in turn has both direct and indirect effects on household welfare. The magnitude of the impact however depends on whether they are consumed or invested.

### **3. MIGRANT REMITTANCES, ECONOMIC GROWTH AND INEQUALITY**

Remittances are usually viewed as private financial aid that flow directly into the hands of households and the fact that they tend to be counter-cyclical seem to suggest that very often they serve as an important source of both income and consumption smoothing strategies for vulnerable poor and non-poor households. Available literature analyzing the impact of remittance flows show that these flows are beneficial at all levels, namely, the individual, household, local community and national level and goes to suggest that if well managed it can help reduce poverty at these four levels. Buch and Kuckulenz (2004) also report that worker remittances constitute an increasingly important mechanism for the transfer of resources from developed to developing countries and remittances are the second-largest source, behind foreign direct investment, of external funding for developing countries.

The economic impact of remittances has been considered beneficial at both the micro and macro levels at least in the short term and there is increasing evidence that remittances from abroad are crucial to the survival of communities in many developing countries (Quartey and Blankson, 2003, 2004). However, there is scant literature available on the method and techniques for assessing the magnitude of both the micro and macro economic impact of remittances. The relevant literature available mainly concentrates on the main uses to which remittances are applied and also its likely impact on poverty, income inequality, and economic development.

#### **Migrant Remittances and Poverty**

There has been growing literature examining how migrant workers' remittances can affect households. Among these studies, some have documented how migrants have contributed to economic and social development in their country of origin. Thus,

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<sup>4</sup> Banks attribute this to the high cost of importing foreign currency

evidence suggests that remittances from abroad are crucial to the survival of communities in many developing countries as indicated in an IMF Country Analyses report by Russell et al (1990). One benefit expected from labor emigration was that migrants would be bringing an impetus to investments, transfer of technology and machinery and new enterprises. Thus, Russell et al (1990) concluded that ‘once subsistence needs are satisfied; migrants do use remittances for investment purposes including education, livestock, farming, and small scale enterprise’. Taylor (1996) has also argued that remittances have multiplier effects that work to increase national income. In a study on Senegal, Diatta and Mbow (1999), found that remittances were a substantial source of revenue for families with migrant members, and were also used to promote development in migrants’ home communities.

Remittances significantly affect welfare and this was the focus of a study by Koc and Onan (2001)<sup>5</sup>. They examined the impact of remittances on the standard of living of left-behind families in Turkey and found that remittances have a positive effect on household welfare. Their study shows that remittances have both direct and indirect income effects, which potentially have important influences on production, income inequality and poverty, at least at the local level. Their study also shows that twelve percent (12%) of households used about eighty percent (80%) of remittances to improve their standard of living though it is argued that dependency on the same leaves households vulnerable to changes in migration cycles.

Migrant remittances also serve as a source income for savings and investment and this is confirmed by Taylor (1996). He found that remittances contribute to savings and investments thereby leading to growth and development of any economy, and this is corroborated by Findley and Sow (1998) in a study on Mali. They report that remittances not only covered basic food and cash needs but also allowed to pay for irrigation in agriculture. Recent work in Somaliland has highlighted investment of remittances in production even in highly unfavorable economic and political conditions (Ahmed, 2000). Similarly, Kannan and Hari (2002) studying the macroeconomic impacts of remittance flows in India indicate that remittances have made significant impact on savings.

Migrant remittances also affect the stability of the exchange rate and inflation, depending on how the inflows are managed. For instance, Amuedo-Doranates and Pozo (2002) testing the impact of workers’ remittances on real exchange rate using a panel of 13 Latin American and Caribbean nations argue that workers’ remittances have the potential to inflict economic costs on receiving economies. Their analysis revealed that these flows in the form of gifts usually causes growth of parallel foreign exchange markets resulting in the appreciation of the real exchange rate and also creates dependency on unreliable sources of foreign exchange that are subject to cyclical fluctuations. In a related study, Swanson (1979) has also posited that though remitted earnings may prove to be useful in balance of payments problems, they generally contribute little to economic growth.

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<sup>5</sup> Their study was based on data from the *1996 Turkish International Migration Survey (TIMS-96)*

The importance of remittances has also been examined empirically in terms of its direct impact on poverty. Adam and Page (2003) using data from 74 low and middle-income developing countries found that international migration has a strong statistical impact on reducing poverty; on average, a 10% increase in the share of international migrants in a country's population will lead to a 1.9% decline in the share of people living in poverty. Thus, international remittances strongly affect poverty and they tend to minimize the negative effects of economic shocks in an economy.

Whilst some researchers hold the view that remittance flows reduce income inequality between the rich and the poor others are however of the view that the reverse is true because, it is the rich that are able to get their family members to migrate. Adams (1991), in a study based on a survey of 1000 households in rural Egypt used income data from households with and without migrants to determine the effects of remittances on poverty, income distribution and rural development and found that although remittances were helpful in alleviating poverty, paradoxically they also contributed to inequality in the distribution of income. On the contrary, Gustafson and Makonnen (1994) found that in Lesotho, migrant remittances actually decrease inequality. Chimhowu et al (2004) supports the view that remittances do increase inequality at the local level, but at the international level they transfer resources from developed to developing countries and so help to reduce inequality.

### **Remittances as a form of Social Insurance**

Remittances have also served as a form of social insurance for migrants. In an earlier work by Stark (1991) it was argued that if remittances are seen as premium payments for future risks then it can be argued that they allow both parties to secure their livelihood in the event of external shocks, which may be in the form of loss of employment and drought occurring. Taylor (1999) argues that remittances may serve as a form of insurance policy against risks. Thus, remittances are counter-cyclical. Hulme et al, (2001) however suggest that for remittances to serve as a form of premium payment for future risks, these flows should enable households accumulate assets that reduce vulnerability to financial shocks and to gain access to entitlements such as education and health that contribute to livelihood security and sustainability. This view point is corroborated by Azam and Gubert (2002) in their study on the impact of remittances using historical and anthropological surveys on recipients in Africa. In particular, they examined the Soninke labor migration, and interpret it as a means of diversifying risk in a context of missing insurance and credit markets. Amuedo-Doranates and Pozo (2002) corroborates this finding when they investigated whether remittance flow serve as insurance for Mexican migrants. They argued that remittances are, in part, transferred to the home country to "purchase" family-provided insurance and self-insurance and they find that increases in income risk significantly increases both the propensity and the proportion of labor earnings sent home for family-provided insurance as well as for self-insurance.

## **Migrant Remittances and Economic Shocks**

Unanticipated economic shocks<sup>6</sup> affect consumption through income. The mechanisms households may employ to smooth out the impacts of such shocks can take different forms. One such means is to spend accumulated household wealth (Deaton, 1992). However, there are many other mechanisms that individuals and households might employ to smooth fluctuations in consumption. Households may seek to reallocate resources across time, by for example, borrowing from the formal financial markets (Rosenzweig and Wolpin, 1993; Udry, 1994). Households may also change the allocation of resources in any period and this might involve reallocating consumption expenditure away from more durable and deferred expenditure items. A much more important and recent consumption smoothing mechanism is by sharing risk among people within an economy or across countries through private transfers.

In the case of private inward remittances, an unanticipated economic shock such as a fuel price increase or low rainfall recorded during the farming season, or elimination of agricultural subsidies (on inputs such as fertilizer etc) will lead to low output and income shortfalls. Households with relations abroad are likely to be remitted to augment their income and thereby reduce the impact of the shock on welfare. Similarly, a decline in rainfall patterns will lead to low agricultural output which will in turn affect both rural and urban households disproportionately. In the case of rural households, the decline in yield will lead to a decline in farm income which will then affect consumption and hence welfare. Similarly, urban households will experience a rise in food prices and since food accounts for a greater proportion of household budgets in Ghana, household welfare will decline unless incomes are augmented with migrant remittances or other means discussed above.

Ratha (2003) also corroborates the point that migrants may increase remittances in times of economic hardship, especially in low-income countries where their families may depend significantly on remittances as a source of income and may live at close to subsistence levels. Ratha further argues that economic downturns may also encourage workers to migrate abroad and thereby begin to transfer funds to families left behind. He further argues that while capital flows tend to rise during favorable economic cycles and fall in bad times, remittances appear to react less violently and show remarkable stability over time. For example, he shows that remittances to developing countries continued to rise steadily, especially during 1998-2001, a period characterized by a decline in private capital flows in the wake of the Asian financial crisis. Thus, remittances augment the recipient individuals' incomes and increase the recipient country's foreign exchange reserves thus they offset some of the output losses or economic shocks that a developing country may suffer from emigration of its highly skilled workers.

Negative economic shocks tend to have spill-over effects on various sections of an economy, the poor suffer disproportionately from shocks because they generally have

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<sup>6</sup> Defined as low agricultural output due to poor rainfall, declines in real wages due to inflation, frequent terms of trade shocks, volatility in public consumption, and volatility of credit to the private sector etc

limited savings and access to credit; they rely heavily on public social services, which deteriorate as spending becomes constrained; and their limited skills mean higher income shortfalls. The shocks that hit low-income countries most frequently include natural disasters and large fluctuations in export or import prices. Natural disasters damage a country's stock of physical and human capital and reduce income and output, while fluctuating prices for a country's exports reduce income in the private and public sectors. Other types of external shocks can also be very costly. Conflicts in one country can spill over to neighboring countries and create refugee problems, losses in export markets, higher transportation costs, lower remittances, and even conflict contagion and increased defense expenditures (See Happe et al, 2003).

In addition to physical damage and income losses, Happe et al (2003) indicate that these shocks also have indirect effects that can reverberate through an economy, hampering output and investment, upsetting macroeconomic balances, and increasing debt and poverty over a number of years. The type and magnitude of indirect effects will depend on the size and duration of a shock, whether measures were taken in advance to mitigate its impact, the government's policy response, and the amount and form of external assistance a country receives. However, estimating these effects can be tricky because it is difficult both to identify the channels through which they are transmitted and to isolate the magnitude of their impact, especially when more than one shock has affected an economy or when an economy is recovering from a prior shock. Through direct and indirect effects, shocks can significantly impede growth.

In spite of efforts by low-income countries to raise growth rates in recent years, their vulnerability to such shocks continues to remain enormous. Other sources of inflows are of great need if their vulnerability is to be reduced significantly in order to absorb such shocks. In this vein Glytsos (2002) reiterates that given the persistent problems in the balance of trade in less developed countries including the limited effect of foreign aid, and the difficulties of borrowing, the often huge amounts of migrant remittances can substitute for the inadequacies of these forms of foreign exchange.

### **Studies on Migrant Remittances in Ghana**

A number of studies carried so far on migrant remittances flow to Ghana have however been mainly focused on the uses to which these funds are put, with less emphasis on the assessment of its magnitude and impact on households, particularly in times of shocks. In a much earlier study of internal migration in Ghana, Caldwell (1969) found that migrants spent remittances to pay for schooling and wages of farm laborers, and to develop small businesses. Also, a survey conducted by the Sussex Centre for Migration Research in Ghana, particularly in the Ashanti Region in March 2003 identifies three main uses to which remittance flows are applied. First, remittances are used to satisfy individual needs such as satisfying consumption needs, organizing funerals and meeting other pressing social needs. The second motive is to support social projects in migrants' originating communities. The third motive identified to be less common but perhaps the most important for the promotion of economic development is for productive

investments. Under this third category, the most common is for migrants to invest in businesses of their relations in their home country.

A more recent study by Litchfield and Waddington (2003) on Ghana also examined the welfare outcomes of migrants and non-migrants in Ghana using GLSS data and found that migrant households have statistically significantly higher living standards than non-migrants though there appears to have been a slight decline in the extent of migration over the decade. This study will try to fill the lacuna by specifically examining how remittance flows have helped in minimizing the impact of macro volatility on the poor in Ghana, as observed during the 1990s.

In conclusion, despite the conflicting results of the impacts of remittance flows, an overwhelming amount of the empirical literature suggest remittances make a powerful contribution to reducing vulnerability at least at the household and local community levels. It is important to emphasize however that much of the effects are seen at the household level suggesting that remittances underpins the welfare of households. Thus as much as it is important to assess the impact of remittance flows at the national and community levels it is more important to consider the assessment of the impact at the household level to direct policy since it has the potential for reducing overall poverty and the vulnerability of the poor to macro economic volatility. In sum, the literature suggests that remittances have more positive than negative impacts.

#### 4. METHODOLOGY

The study will use two data sources; first, data from a survey of recipients of migrant remittances through the offices of selected money transfer institutions<sup>7</sup> in Accra. This will basically ascertain the proportion remittances consumed and invested and the share of recipient's income from migrant remittances. Subsequently, the GLSS 3 and 4 will also be used to analyze the impact of remittances on poverty in Ghana. The principal hypothesis to be investigated by this study is that 'migrant remittances reduce poverty. Two approaches will be followed; first, a descriptive approach where the broad developments in migrant remittances in Ghana will be discussed. The second approach will employ quantitative techniques to ascertain how remittances affect household poverty status.

The quantitative technique involves estimating a classical linear regression model. A typical classical linear regression model can be specified as

$$Y_i = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \beta_3 X_{i3} + \beta_4 X_{i4} + \dots \beta_k X_{ik} + \epsilon_i$$

Y is the dependent variable and in this study 'household poverty status', the Xs are the independent or explanatory variables, which would include income, level of education,

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<sup>7</sup> MoneyGram (SG-SSB), Western Union (ADB), Vigo (Merchant Bank), and a Non-bank Financial Intermediary

and an index of macro-volatility, and other demographic variables.  $\varepsilon_t$  is the error term which is assumed to be independent and normally distributed and it is white noise. The explanatory variables and their expected signs are discussed as follows.

Earlier studies (eg. Glewwe, 1991; Grootaert, 1997; Teal, 2001; Tunali, 2000; Ravallion, 2001a; Litchfield and Waddington, 2003) on remittances and welfare have identified six broad category of variables to explain household welfare or poverty. Following these earlier studies, it is postulated that household welfare is influenced by the following: First, migrant remittances, that is, access to foreign inflows or transfers tend to supplement domestic resources and help smoothing consumption. However, the ways remittances are used may vary with respect to the economic status of the migrants' households. Richer households are expected to invest the remitted earnings on various forms of enterprises (either productive or unproductive), while poorer households are expected to give priority to satisfy their basic consumption needs. Thus, private remittances would be an important decision parameter for household poverty status or welfare.

Economic volatility has been identified as one of the factors affecting the degree of income inequality in an economy thereby increasing poverty incidence. Economic shocks may take different forms such as low agricultural output due to poor rainfall, declines in real wages due to inflation, frequent terms of trade shocks, volatility in public consumption, and volatility of credit to the private sector are all significant factors in explaining economic volatility. It has been observed that migrant remittances are pro-cyclical, ie, the flow of remittances increases in times of economic shocks and therefore they tend to reduce the effects of shocks on household poverty.

A third determinant of household poverty status is a human asset variable to capture household earnings ability. This includes such variables as number of years of schooling of household head, highest qualification of head of household, age of household head as a proxy for work experience.

Household welfare or poverty status is also influenced by household composition variables – a measure of the contribution of various household members to household income as well as household needs. It includes such variables as sex and household size. This argument is supported by the life-cycle hypothesis which postulates that demographic variables affect consumption or welfare (Ando and Modigliani, 1963). The dependency ratio<sup>8</sup> is the most common demographic variable. The young and the elderly are expected to consume out of past savings while those within the working age are expected to accumulate savings. A developed capital market as well as the number of children in the family has been seen as alternative means of maintaining income in old age.

Generally, household education is likely to have a positive effect on household welfare or poverty status. Since the mean level of education is expected to be significant this is

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<sup>8</sup> Defined as the share of the population under the age fifteen or over sixty five years of age

likely to affect household welfare. A widely used measure of education is the maximum number of years of education per household member, the head of the household or the mother. It has been argued that the level of education of the mother is likely to have a positive impact on household food consumption than the level of education of the male head of household (Bruck, 2003:16)

Household size is also likely to affect consumption or poverty status since there may be synergies from larger household size both in production and in consumption. Working in groups can be more productive through improved supervision, pooling of tools and experience or higher motivation. Meanwhile, food preparation can be less costly for larger groups. The amount of land holdings is another useful determinant of consumption; the proportion of land holding area has a proportional direct effect on household consumption. Households with large land areas are likely to have higher income than households with low land holdings. Even in situations where the household does not cultivate the land by himself, he could rent it out for a fee. Thus land holdings are expected to have a direct positive effect on consumption via income.

According to Kyereme and Thorbecke (1991), age composition of the household which is measured using a fertility index (ratio of the number of children aged fewer than 15 to all other household members) and maturity index (the average age of these children divided by the average age of the remaining members) are two important household composition variables. These two variables measure two opposing effects children may have on the household: first, the presence of children increases the dependency ratio; secondly, as children become older, the net burden may diminish since they may add to the stock of earners, particularly the case in rural areas where children support their parents on the farm. In addition, employment variables such as the composition of the household's workforce, ie, share of adults employed, share adult females employed, etc also explain household welfare.

Physical asset endowment also influences household poverty or welfare status. These variables include land ownership (in acres), real value of livestock, farm equipment and non-farm assets. The number of livestock is another important determinant of welfare. It is expected that farmers or households with larger livestock units have higher income which bears a direct effect on welfare. Also, the sector of economic activity affects one's consumption. Households whose occupations fall within manufacturing, industry and services are better off than food crop farmers according to the Ghana Living Standards Survey (GLSS) report. In addition, households who have off-farm employment are likely to be better off than households without off-farm employment, particularly due to the seasonality of agriculture in Ghana

Locational variables such region of residence, rural or urban explain household poverty since they explain the spatial causes of affluence or poverty. Location effects are manifest in infrastructure and other unobserved geographical heterogeneity (Litchfield and Waddington, 2003).

Income is another major determinant of welfare. The Keynesian Consumption function and the Permanent Income of Friedman postulate a positive relationship between welfare (consumption) and income. According to the permanent income hypothesis, which distinguishes between permanent and transitory components of income, households will spend mainly the permanent income while the transitory income is channeled into savings with a marginal propensity to save from this income approaching unity. The positive relationship postulated by the Keynes and Friedman's permanent income hypothesis has been confirmed by empirical studies (Rossi, 1988; Gupta, 1987; Koskela and Viren, 1982; Avery and Kannickel, 1991).

## 5. DATA ANALYSIS AND FINDINGS

### 5.1 Descriptive Analysis

#### *Uses of Migrant Remittances*

Migrant remittances are consumed, invested or used for other social activities. A survey of 167 recipients of migrant remittances in Accra indicate that 51.8% of the sample mentioned that the remittances are consumption purposes (living expenses, funerals and other social activities) while about 44 percent of the sample indicated that the funds are for investment purposes (Table 1). The relatively significant proportion of remittances invested clearly indicates that migrant remittances have significant long term impacts on economic growth and household welfare.

Table 1: Uses of Migrant Remittances in Ghana

<b>Uses</b>	<b>Observations</b>	<b>Percentage of Total</b>
Living Expenses	79	47.59
School Fees	45	27.11
Working Capital	6	3.61
Investment for Sender	22	13.25
Funeral	2	1.20
Other Social Activities	5	3.01
Others	7	4.22
<b>TOTAL</b>	<b>166</b>	<b>100</b>

Source: Author's Survey, April 2005

The survey also revealed that remittances form quite a significant proportion of recipients' income; whereas 40% of the sample stated that migrant remittances are the main source of income, 60% stated they have other main sources of income. About 20% of the sample lives solely on migrant remittances. On average, migrant remittances form 57.4% of recipients' total income.

### *Migrant Remittances and Poverty Reduction*

The study used waves 3 and 4 of the Ghana Living Standards to ascertain the impact of remittances on household welfare. The GLSS 3 and 4 comprises 4507 and 5992 households respectively and covers all the 10 regions of Ghana. The GLSS 3 survey data covered the period 1991/92 while the GLSS 4 data spanned the period 1998/99. 64.7% and 42.9% of the total sample in GLSS 3 and 4 respectively received remittances from a local or foreign source. Out of the total number of household members in the Ghana Living Standards Survey, 16.9% of those in GLSS 3 and 15.7% of those in GLSS 4 received migrant remittances from outside the country. In terms of households, 6.1% and 8.1% of households received remittances in 1991/92 and 1998/99 respectively. The proportion of household members who received remittances from relations in other African countries had declined over the two periods; it was 6.52% in GLSS 3 and 3.6% in GLSS 4 respectively. On the other hand, the proportion of household members receiving remittances from migrant family members living outside Africa had increased from 10.4% in 1991/92 to 12.1% in 1998/99.

Those who received remittances from their brothers/sisters form the majority (33.1% in GLSS3 and 33.5% in GLSS 4). A significant proportion of migrant's children received remittances (26.3% in GLSS 3 and 32.6% in GLSS 4). The proportion of spouses of migrants who received remittances accounted for 11.4% in GLSS 3 and 3.7% in GLSS 4. Also, quite a significant proportion of migrants' relatives also received remittances in the form of goods and money; 13.5% in GLSS 3 and 18.1% in GLSS 4. Only 2.7% of parents in the GLSS 3 sample and 5.3% in GLSS 4 received remittances from their children. Thus, there has been an increase in the proportion of households who received remittances from the different types of relations except for spouses where the proportion declined over the two periods. A possible explanation to the significant decline in the proportion of migrants remitting their spouses is that migrants are gradually getting their spouses to join them.

In terms of the two sexes, 60.2% and 64.7% migrant remittances went to males in 1991/92 and 1998/99 respectively. While the proportion of females who received migrant remittances decreased from 38.8% in 1991/92 to 35.3% in 1998/99. The decline in the proportion of females receiving remittances is not encouraging since it is well known that transfers to female headed households tend to have higher impact on household welfare compared to their male counterparts. Another interesting revelation is that only a small proportion of migrant remittances were required to be paid back; 3.2% of households receiving remittances in 1991/92 and 3.6% of households that received remittances in 1998/99 period were required to repay.

**Table 2: Regularity of Inflow of Remittances**

<b>Frequency</b>	<b>GLSS 3 (1991/92) (Percent)</b>	<b>GLSS 4 (1998/99) (Percent)</b>
Weekly	1.8	0.2
Monthly	5.7	9.0
Quarterly	14.9	14.0
Annually	29.4	17.3
Not Regular	45.7	58.5
Other	2.4	1.1

Source: Computed from GLSS 3 and 4

The data also revealed that a significant proportion of households do not regularly receive remittances. 45.7% and 58.5% of households that received remittances in GLSS 3 and GLSS 4 respectively said they do not regularly receive remittances. Similarly, 29.4% and 17.3% of sampled households in GLSS 3 and 4 respectively received remittances annually. Meanwhile, 14.9% and 14.0% of the total sample in GLSS 3 and GLSS 4 respectively received remittances on a quarterly basis (Table 2). The high incidence of 'not regular' inflows of remittances (as evident in Table 2), clearly demonstrates the widespread view that remittances are used as a means of coping with unexpected economic shocks.

Another interesting revelation is that the maximum value of remittances received by households was ₵1.6million (US\$ 3661.3) in 1991/92 and ₵5.64 million (US\$ 21,307.1) in 1998/99<sup>9</sup>. Meanwhile, the mean value of remittances received by household members in 1991/92 was ₵20,616 and increased significantly to ₵203,949 in 1998/99. Interestingly, 1991/92 marked a period in Ghana when inflation was relatively low (about 10%) as compared to the about 16% rate of inflation recorded in 1998/99. Adjusting for the inflationary effects in the mean value of remittances for the two periods will still show considerable growth in migrant remittances between the two periods. The mean value of remittances in real terms amounted to ₵108,163.7 in 1991 and ₵153310.5 in 1999, an increase of 41.74% over the two periods. The considerable growth in the amount of remittances in 1998/99 as compared that of 1991/92 goes to confirm the assertion that migrant remittances to Ghana are counter-cyclical – they increase in times of economic shocks and therefore they are less regular as indicated in Table 2.

<sup>9</sup> The US\$ exchanges for ₵437 = \$1 in 1992 and ₵2647 = \$1 in 1999

**Table 3: Mean Value of Remittances**

Type	GLSS 3 (1991/92) ¢	GLSS 4 (1998/99) ¢
Cash	78,361	666,049
Food	2,813	12,187
Non-food	20,616	146,862

Source: Computed from GLSS 3 and 4

It is noteworthy that remittances are mostly in the form of cash and non-food items (Table 3).

**Table 4: Level of Education and Mean Household Size**

	GLSS 3 (1991/92) Percentage	GLSS 4 (1998/99) Percentage
No Education	28.3	20.0
Basic	1.3	1.9
Secondary	6.5	7.40
Post-secondary	1.7	2.6
Tertiary	0.5	3.4
Mean Household Size	4.5	4.3

Source: Computed from GLSS 3 and 4

An analysis of the demographic characteristics of households receiving remittances also shows interesting results. The majority of households receiving remittances in the two periods have no formal education – About 28% in 1991/92 and 20% in 1998/99. This is followed by those with secondary education, post-secondary education and basic education respectively (Table 3). Another interesting finding is that the average household size for households receiving remittances decreased from 4.5 to 4.3; a slight decline in household size over the two period.

## 5.2 Regression Analysis

In order to ascertain whether remittances ensure shared growth between rich and poor countries and therefore lead to poverty reduction, waves 3 and 4 of the GLSS was pooled into a composite sample using households that received remittances during two survey periods. An OLS was then used to estimate the impact of remittances on household poverty status<sup>10</sup>. The variables used are described below:

<sup>10</sup> Defined in the GLSS as Extreme poor (0), poor (1), non-poor (2)

The estimates as reported in Table 6, provides very interesting findings. First it was found that, the flow of migrant remittances to Ghana improves recipients' poverty status. Second, remittances increase in times of economic shocks, hence, they are counter-cyclical. Second, households that own land are able to withstand economic shocks and therefore tend to have better welfare than those without land. Whereas the level of education (basic, secondary or tertiary) of the household head positively and significantly affects welfare (poverty status), age of the head of the household positive and insignificantly correlates with household poverty status. The study also found that larger households tend to be poorer than those with smaller households; an indication that there is the absence of consumption synergies within larger households.

**Table 5: Definition of Variables**

<b>Variable</b>	<b>Definition</b>
<i>Pstatus</i>	Poverty Status (extreme poor, very poor, or non-poor)
<i>Lpremit</i>	Log of per capita household remittance
<i>Inflationn</i>	Volatility index for food price in 1991/92 and 1998/99 <sup>11</sup>
<i>Interact</i>	Interactive term: the product of <i>lpremit</i> and <i>inflation</i>
<i>Agehead</i>	Age of household head
<i>Hhsize</i>	Size of household
<i>Sexhead</i>	Gender of household head
<i>Basic</i>	Head of household has basic education
<i>Secondary</i>	Head of household has secondary education
<i>Postsec</i>	Head of household has post-secondary education
<i>Tertiary</i>	Head of household has tertiary education
<i>Land</i>	Household does not own land
<i>ecozone2</i>	Household located in forest belt
<i>ecozone3</i>	Household located in savannah belt
<i>loc2</i>	Household located in rural area

<sup>11</sup> The Ghana Living Standards Survey has data on both food and non-food prices which is used to measures volatility for each individual within the various sectors of the economy for the regressions

**Table 6: OLS Regression: Dependent Variable (Poverty Status)**

Regressors	Coefficient	Standard Error	P-value
Lpremit	.0847	.0263	0.001
Inflation	-.0035	.0085	0.688
Interact	-.0002	.001	0.808
Agehead	.00114	.0014	0.417
Hhsize	-.0677	.0093	0.000
Basic	.1843	.060	0.002
Secondary	.1230	.0732	0.094
Tertiary	.2054	.1199	0.087
Land	-.128	.0534	0.017
I-loc2	-.242	.0499	0.000
Constant	1.3	.275	0.000

R-Squared: 0.3272

Observations = 765

Adjusted R-Squared: 0.3109

F (18, 746) = 20.15

Prob &gt; F = 0.0000

Finally, locating in a rural area significantly increases one's poverty status.

## 6. CONCLUSION

The study investigated how remittances lead to share growth and poverty reduction in Ghana. The study used two different data sets; a sample of 166 recipients of migrant remittances in Accra and the two most recent waves of the Ghana Living Standards Survey. Both descriptive and regression analysis were used. The key findings from the study include. First, migrant remittances to Ghana are private 'financial aid' that flow directly from developed countries into the hands of households in Ghana and are consumed, invested or used for other social activities. The study also found that a relatively significant proportion of remittances are invested which clearly indicates that migrant remittances have significant long term impacts on household welfare. The share of remittances in GDP is significant and has shown a steady increase over the past decade, indicating the potential role of remittances in economic growth. In addition, from the survey of recipients of remittances, migrant remittances form a significant proportion of their income, indicating its role in ensuring shared growth between rich and poor nations. A related finding is that, migrant remittances significantly improve recipients' poverty status, hence it can be argued that they ensure shared growth between rich and poor countries although they can perpetuate inequality within the country. It was also observed that locating in a rural area or not owning a piece of land worsens one's poverty status. On a positive note, human capital or level of education increases one's poverty status. Finally, the incidence of poverty is higher in larger households.

In conclusion, migrant remittances ensure that private resources are transferred from rich countries to households in poor countries not just for consumption but for investment purposes which tends to promote growth and facilitate poverty reduction. The study therefore suggests the following: first, rich countries should streamline legislations that inhibit the transfer of migrant funds to developing countries. Secondly, the cost of transferring migrant remittances to developing countries should be reduced. Additionally, there are other informal means of sending remittances to Ghana and therefore the central bank should design a regulatory framework that will integrate the informal channels of sending migrant remittances into the formal sector. Also, the high proportion of remittances invested in Ghana gives scope for exploring further investments, particularly, investments denominated in foreign currencies or index linked to a foreign currency and with attractive returns.

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