Remittance Receipts by Ghana’s Households: Understanding Their Distribution and the Impact on Investment in Basic Education

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Introduction

▪ The emergence of remittances as a topical subject
➢ The importance of migrant remittances
➢ The growth in remittance-facilitation services
➢ An increase in knowledge about the role of remittances
▪ Meaning of a remittance
A monetary or in-kind transfer from one household to another, and for which no direct or explicit repayment is required.
▪ Motivation
The importance of knowing more about the impact of remittances.
Research questions

i. What is the distribution of remittance receipts?

ii. What is the impact of remittance receipts on households’ investment in basic education?

iii. What are the implications of the findings from (i) and (ii) on the distribution of welfare?
Relevant literature

- The impact of remittances on agricultural productivity
  Rempel and Lobdell (1978)
- The impact of remittances on various aspects of wellbeing;
- The impact of remittances on school attendance or educational attainment;
  Mansour, Chaaban, and Litchfield (2011); Amuedo-Dorantes, Georges, and Pozo, 2010; and Lu and Treiman, 2011).
- The impact of remittances on households’ investment in education;
  ➢ Gyimah-Brempong and Asiedu (2014)
  ➢ Pickbourn (2015)
Dataset and methodology

▪ Dataset
Data from the 2012/2013 Ghana Living Standards Survey

▪ Methodology
i. Descriptive statistics, by type of household;
   ➢ An analysis of remittance receipts;
   ➢ An analysis of remittance sizes;
   ➢ A comparison of remittance receipts with spending of basic education;

ii. An econometric and counterfactual modelling of various scenarios:
Dataset and methodology (II)

i. Specify an education expenditure equation

ii. Divide the appropriate sample into remittance recipient households and non-recipient households;

iii. Use these sub-samples of households to estimate remittance-recipient and remittance non-recipient education expenditure equations;

iv. Use these two equations to generate appropriate counterfactual education expenditures for all the households in the sample;

v. For each household, we are able to estimate its education expenditure as a remittance recipient, and its education expenditure as a remittance non-recipient;

vi. Estimate the relevant average treatment effects (ATET and ATE);

vii. Generate ATET and ATE using propensity score matching (PSM).
Dataset and methodology (III)

\[ \ln\text{Expenditure} = \beta \ln\text{HHIncome} + \delta\text{PupilsAge} + \rho\text{Scholarship} + \mu\text{Loc} + \varepsilon \quad (2) \]

For the \textit{i}th household, the treatment effect of receiving remittances is expressed as:

\[ \text{Treat}_i = \ln\text{E}_{1i} - \ln\text{E}_{0i} \quad (1) \]

Where:

\( \ln\text{E}_{1i} \) represents the \textit{i}th household’s log of education expenditure in a remittance-recipient scenario; and

\( \ln\text{E}_{0i} \) represents the \textit{i}th household’s log of education expenditure in a remittance non-recipient scenario;
Households’ receipt of remittances and their expenditure on basic education

<table>
<thead>
<tr>
<th>Households’ remittance receipt status</th>
<th>Percentage</th>
<th>Mean of average expenditure (GHS) on basic education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Received domestic remittances only</td>
<td>27.14</td>
<td>259.02</td>
</tr>
<tr>
<td>Received foreign remittances only</td>
<td>3.70</td>
<td>606.28</td>
</tr>
<tr>
<td>Received domestic and foreign remittances</td>
<td>1.37</td>
<td>289.21</td>
</tr>
<tr>
<td>Did not receive any remittance</td>
<td>67.79</td>
<td>382.63</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>356.82</td>
</tr>
</tbody>
</table>
Mean yearly amounts (GHS) of remittances received

<table>
<thead>
<tr>
<th>Households’ remittance receipt status</th>
<th>Mean amount of domestic remittances received</th>
<th>Mean amount of foreign remittances received</th>
<th>Mean amount of remittances received</th>
</tr>
</thead>
<tbody>
<tr>
<td>Received domestic remittances only</td>
<td>623.83</td>
<td>n/a</td>
<td>623.83</td>
</tr>
<tr>
<td>Received foreign remittances only</td>
<td>n/a</td>
<td>2,132.89</td>
<td>2,132.89</td>
</tr>
<tr>
<td>Received both types of remittances</td>
<td>731.43</td>
<td>1,099.69</td>
<td>1,831.12</td>
</tr>
<tr>
<td>All</td>
<td>628.99</td>
<td>1,854.22</td>
<td>848.49</td>
</tr>
</tbody>
</table>
Percentage of Households that Received Remittances
By Income Quintiles

Percentage of Households that Received Remittances

Domestic  Foreign  All
By Income Quintiles

Quintiles of hh income (excl. rem) per ae

Percentage

Domestic  Foreign  All
Quintiles of hh income (excl. rem) per ae

By Income Quintiles

Percentage of Households that Received Remittances

Percentage of Households that Received Remittances

Mean Amount (GHS) of Remittances Received by Recipient Households

Mean Amount (GHS) of Remittances Received by Recipient Households
Covariates in the regressions

OLS:
Household income excluding remittances
Mean age basic school pupils
Household’s scholarship status
Location variables (urban-rural, region)

Probit:
household income excluding remittances
Sex of household head
Household head’s age group
Number of elderly persons
Household’s child fostering status
Scholarship status
Location variables (urban-rural, region)
## Impact of remittance receipt on households’ investment in basic education

<table>
<thead>
<tr>
<th>Type of impact</th>
<th>Method</th>
<th>Estimated impact</th>
<th>Statistical significance of estimate (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATET</td>
<td>IPWRA</td>
<td>0.01</td>
<td>0.733</td>
</tr>
<tr>
<td>ATET</td>
<td>PSM</td>
<td>0.007</td>
<td>0.889</td>
</tr>
<tr>
<td>ATE</td>
<td>IPWRA</td>
<td>-0.008</td>
<td>0.799</td>
</tr>
<tr>
<td>ATE</td>
<td>PSM</td>
<td>0.002</td>
<td>0.960</td>
</tr>
</tbody>
</table>
### Impact of receipt of “domestic remittances only” on households’ investment in basic education

<table>
<thead>
<tr>
<th>Type of impact</th>
<th>Method</th>
<th>Estimated impact</th>
<th>Statistical significance of estimate (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATET</td>
<td>IPWRA</td>
<td>0.032</td>
<td>0.323</td>
</tr>
<tr>
<td>ATET</td>
<td>PSM</td>
<td>0.028</td>
<td>0.574</td>
</tr>
<tr>
<td>ATE</td>
<td>IPWRA</td>
<td>-0.052</td>
<td>0.10</td>
</tr>
<tr>
<td>ATE</td>
<td>PSM</td>
<td>-0.053</td>
<td>0.202</td>
</tr>
</tbody>
</table>
# Impact of receipt of “international remittances only” on households’ investment in basic education

<table>
<thead>
<tr>
<th>Type of impact</th>
<th>Method</th>
<th>Estimated impact</th>
<th>Statistical significance of estimate (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATET</td>
<td>IPWRA</td>
<td>0.307</td>
<td>0.000</td>
</tr>
<tr>
<td>ATET</td>
<td>PSM</td>
<td>0.190</td>
<td>0.10</td>
</tr>
<tr>
<td>ATE</td>
<td>IPWRA</td>
<td>0.152</td>
<td>0.264</td>
</tr>
<tr>
<td>ATE</td>
<td>PSM</td>
<td>0.415</td>
<td>0.017</td>
</tr>
</tbody>
</table>
Impact of receipt of “domestic and international remittances” on households’ investment in basic education

<table>
<thead>
<tr>
<th>Type of impact</th>
<th>Method</th>
<th>Estimated impact</th>
<th>Statistical significance of estimate (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATET</td>
<td>IPWRA</td>
<td>0.364</td>
<td>0.000</td>
</tr>
<tr>
<td>ATE</td>
<td>IPWRA</td>
<td>0.545</td>
<td>0.000</td>
</tr>
</tbody>
</table>
Conclusion

- On the whole, households’ receipts of remittances appears to have little effect on their investment in basic education;
- Households’ receipts of international remittances have considerable impact on their investments in basic education;
- The impact remittance receipts could have an adverse effect on Ghana’s welfare distribution;
- International remittances offer an opportunity for enhancing Ghana’s human capital.
Thank you!