



# **PRESS RELEASE OF WORKING PAPER 3.10**

## **REMITTANCES AND EDUCATIONAL OUTCOMES: EVIDENCE FOR MOLDOVA**

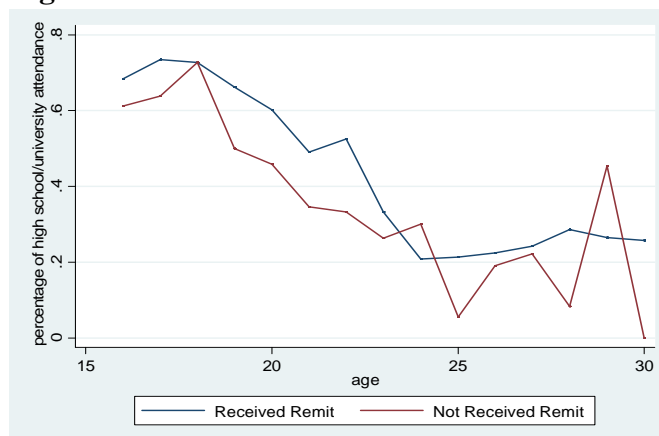
**April 2013**

### **OBJECTIVE**

The aim of this paper is to analyze the relationship between remittances and educational outcomes in Moldova, one of the ENP countries. The idea is to understand whether remittances can be considered, from a policy perspective, as a useful channel in order to foster human capital formation and to improve economic conditions in the origin countries of migration.

### **MAIN RESULTS AND POLICY IMPLICATIONS**

We use household data for 2008 coming from the CBSAXA Moldovan Household Survey provided by the Kiel Institute. As variables of interest we use a dummy variable indicating whether a family receives remittances and a dummy variable that takes on a value of 1 in the case that a family member is currently pursuing a high level of education (secondary/university). We focus on family members aged between 16 and 30, since 16 is the compulsory age of education in Moldova and 30 represents a suitable age limit for the analysis. The data we use are very rich in terms of individual characteristics (gender, age, marital status and citizenship), household characteristics (size of the family, number of young children and adults, members' education level, income class, wealth variables, urban status) and migrants characteristics (education and host country). Figure 1 shows the percentage of family members by age receiving a high level of education in families receiving remittances and in families not receiving remittances. Results show that from a descriptive point of view on average members of families receiving remittances are more likely to attend a higher level of education.

**Figure 1**

The empirical analysis is aimed at estimating the impact of remittances on education outcomes by using a probit model. A first regression points out that estimates for remittances are general significant and decrease in magnitude as more controls are added to the estimation. In particular, the highest drop occurs when we introduce the migrant education level in the estimation, where the marginal effect for the remittances passes from 0.083 to 0.055. This means that being in a family receiving remittances increase the probability of attending a high level of education of around 6%. Moreover, since our focus here is on the relationship between the ENP countries and the European Union, we added in the estimation an interaction term between the remittances dummy and a dummy indicating whether the migrant member of the family is located in a EU country. Results indicate that there is no statistical difference between being settled in a EU country or not. This means that there is not a differentiated impact of remittances on education outcomes for those families who have the migrant member settled in the EU and those who do not have.

It is also interesting to note that education is affected by other variables. In particular, the probability of attaining higher education increases when the member of the family is a female, while decreases with respect to age and with being married to a Moldovan, compared to be single or married with a foreign spouse. Further, the size of the household entails a negative impact on the probability of attending higher education, as well as, the number of very young children. On the other hand the number of adults in the family increases this probability. This is likely related to the fact that families with a high number of members, among which some very young, bring to a need of care that act as substitute for education. As for the variable related to the wealth of the household only the dummy for having a PC in the house increases the probability of attending higher education, while both the income level and the dummy related to owning land or a car do not appear to have a significant impact. Finally, the migrant level of education has a strong, positive and significant impact.

We also take into account the endogeneity between migrants' decision to remit and education. In order to control for this endogeneity we by apply an IV strategy. As instruments we choose the following:

- The unemployment level in 2007 and the productivity in 2007 of the host country of the migrant. The idea is that these represent exogenous factors (exogenous shock) that influence the migrant's decision on sending remittances to its origin family.

- The number of older members of the family. The idea behind is related to the concept of altruism as a motive for sending remittances as stated in Cox et al. (1997)<sup>1</sup> and in Mansour et al. (2011)<sup>2</sup>. Therefore, having a family with a relatively high number of old members can influence the decision on sending remittances due to the need of medical cares for these members and to the declining productivity of the family.
- The historical migration rate which has been heavily used as an instrument for remittances (see Mc Kenzie and Rapoport, 2006, or Lopez-Cordova, 2005) due to the rationale that historical rate of migration represents an indicator for the presence of network that lower the cost of migration for future members of the communities. These networks then influence both migration and remittances decision today, and at the same time past migration flows cannot influence education decision apart from the channel of remittances. We use the values provided in the census of Moldovian population in 2004 where the migration rate is classified by districts (38).
- A dummy for families having a bank account (Mansour et al., 2011), which represents one of the means through which remittances can be received and therefore because of easing the process of sending remittances, influence the remittance decisions.

Results of the IV estimation show that endogeneity was causing an attenuation bias of the estimates of the relationship between remittances and education attendance. In fact, once controlled for endogeneity, the marginal effects increase at around 33%, which means that being in a family receiving remittances increases the probability of attaining higher education of around 33%.

To sum up, in this study we have analyzed the relationship between remittances and education outcome in Moldova, one of the ENP countries using household data for the year 2008. Our results have shown that this relationship is positive and significant. In particular, the probability of attaining a higher level of education is 33% higher for a member of a family-receiving remittances with respect to a member of a family-no-receiving remittances, thus confirming the descriptive evidence. This result is important from a policy point of view, since it highlights a possible mechanism to compensate, at least in part, the brain drain due to migration in other countries.

---

<sup>1</sup> Cox, D., Eser Z., Jimenez E., (1997), ‘‘Motives for Private Transfers Over the Life Cycle: an Analytical Framework for Peru.’’, *Journal of Development Economics*, 55, pp.57–80.

<sup>2</sup> Mansour W., Chaaban J. and Litchfield J., (2011), ‘‘The Impact of Migrant Remittances on School Attendance and Education Attainment: Evidence from Jordan’’, *International Migration Review*, 45(4), pp.812-851.