

International Remittances and Human Capital Formation

VANIA B. SALAS*

The Pennsylvania State University, USA

Summary. — This article investigates the effect of international migration on children left behind in Peru. The theoretical model is based on human capital theory and educational investment decision linked to remittances. The model analyzes the role of international remittances on the investment decision between sending children to a public school or to a private school. Using data for the period 2007–10, this study addressed the problem of a left-censored endogenous variable for panel data by using a two-step estimation, and found that international remittances have a positive effect on the likelihood to send children to private schools controlling for absenteeism of parents.

© 2014 Elsevier Ltd. All rights reserved.

Key words — international remittances, international migration, human capital

1. INTRODUCTION

One of the main problems facing policy-makers in Peru is improving the quality of public education in order to enhance human capital in the country, and thus leave the bottom rank in the *Programme for International Student Assessment (PISA)* evaluation compiled by the Organisation for Economic Co-operation and Development (OECD). Although educational coverage has increased to almost the same level as in developed countries (UNESCO-UIS/OECD, 2005), the quality of Peruvian education remains low. PISA (2003) results show that Peru has an average score of 327 points which is the lowest score in the Latin American region (Argentina, Chile, Mexico, Brazil, and Peru) and much lower than the average of the OECD countries (500 points) (UMC, 2004). As a consequence of PISA's results the Peruvian education has been declared to be in a state of emergency by the national government.

The educational system in Peru reflects the high inequality experienced within Peruvian society; private schools provide better education compared to that provided by public schools. According to the results on reading literacy skills reported in PISA (2003), the difference in student performance within Peru for the year 2000 between the highest and the lowest quintile is 314 points (UMC, 2004).¹ This gap is explained by the differences among schools, and around 58% of student's performance in PISA is explained by school factors (UMC, 2004). This fact highlights that a better quality of education is provided by private schools compared to public schools.

Attending school, especially private schools, has become a pathway to move up and improve socio-economic status (SES) which may have a larger impact on children from low- and middle-income households. Evidence from the US suggests that children from private schools have a higher probability of accessing a better college education (Griffith & Rothstein, 2009), which in turn increases their job opportunities. Children from low-income households are doomed to attend public schools which in turn make them less competitive than children educated in private schools.

The main constraint to access not only private but also public education in Peru is its cost and the opportunity cost of children's work. Public education in Peru is free and provided by the government, however, parents need to pay for additional expenses such as uniforms, transportation, and

school supplies that may pose a high economic burden on especially low income families. Saavedra and Suarez (2002) find that Peruvian families contribute to 32% and 33% of the total public spending for primary and secondary education, respectively. Hence, sending children to school becomes prohibitive for families in the lower group of Peruvian's income distribution. International remittances might loosen this income constraint allowing families left behind by, *firstly* sending children to school, and *secondly* affording a private education for their children. However, there is still not a clear effect of remittances on schooling (Borraz, 2005; Hu, 2012) and to my knowledge all the studies on remittances' effects have evaluated only quantity without including quality of schooling. Only one paper (Calero, Bedi, & Sparrow, 2008) approaches the quality decision for Ecuador but it uses one-year information and did not include absenteeism of parents.

International remittances may be used to acquire more years of education and a higher quality of schooling but according to Rapoport and Docquier (2006) there are several motives for sending back money to the origin country. The empirical evidence is not clear; some studies find that remittances are used for consumption whereas other studies find that remittances are used to acquire investment goods such as education and health (Yang, 2006). Based on the permanent income hypothesis, if remittances are considered as a temporary income they will be invested rather than spent (McKenzie & Sasin, 2007). Hence, the allocation of remittances income is not perfectly fungible with other income sources of the household, and the expected effect is not straightforward.

This paper focusses on the effect of remittances on human capital investment of children left behind in the home country. The potential positive effect of remittances on financial constraints changes the opportunity cost of acquiring more schooling; thus, families may find it optimal to send children to school instead of sending them to the labor market. Researchers have explored remittances' effects on different indicators of human capital. Cox and Ureta (2003) employed dropping out of school as an indicator to explain the large and positive effect of remittances on human capital in comparison to other income sources for El Salvador. Amuedo-Dorantes

and Pozo (2010) focused on children's school attendance from the Dominican Republic and found a positive effect among secondary school-age children and higher order of birth siblings. In a similar vein, Calero *et al.* (2008) found that international remittances have a positive effect on school enrollment in Ecuador. On the contrary, Acosta, Fajnzylber, and Lopez (2007) found a negative effect of remittances on educational attainment in the Dominican Republic, and Meza and Pederzini (2008) stated that remittances in rural Mexico have a negative effect on school achievement.

Receiving international remittances is associated to having a migrant family member which may pose a negative impact on children's human capital. Migration of parents may produce a negative effect on children's educational outcome due to the lack of parental control and by producing a change in children's expectations. First, a household experiencing migration is similar to a disrupted family that has a negative psychological effect on children which in turn affects their educational performance (Bennett, Clifford, & Falkingham, 2012; Kandel & Kao, 2001). In addition, migration places rearing and housework responsibilities on children left behind affecting their allocation of time to school work. Children left behind must take the parents' role as a provider by entering the labor force at earlier ages and becoming a parent figure for younger siblings (Booth & Tamura, 2009; McKenzie & Rapoport, 2010).

Second, if children perceive that their immigrant parents (or relatives and friends) gain higher wages by working in unskilled jobs in the receiving country then children may have none or less incentive to pursue higher levels of education. According to Kandel and Kao (2001), migration is perceived as an alternative to achieve economic success without having higher levels of education. Children with migrant parents may increase their likelihood to migrate (Kandel & Kao, 2001; McKenzie & Rapoport, 2010), and thus they do not acquire more education because the marginal return to education from the origin country is lower in the receiving country. Evidence from Mexico found that children left in migrant households obtain less years of schooling in comparison to those children living in non-migrant households (McKenzie & Rapoport, 2010). In a similar vein, Frisnacho and Oropesa (2011) found a negative impact on educational attainment for children in Peru living in households with a high risk of migration; however, they did not control for amount of remittances and only employed data for Lima (capital of Peru).

However, the brain gain hypothesis in the migration literature posits a positive relationship between labor migration and human capital formation. Evidence for Tajikistan shows that the long-term migration of parents increases the enrollment rate of children left behind, but this study did not control for remittances (Bennett *et al.*, 2012). Theoretical studies such as Vidal (1998) pointed out that in a dynamic system there exists a threshold of human capital, $h^{\#}$, such that sending countries with an initial human capital above $h^{\#}$ will invest more on education and will convert to a high level equilibrium. A country with a highly educated population will send emigrants who are more likely to earn a higher return to their education in the receiving country, which may have a positive influence on their relatives and friends remaining in the sending country to invest more in education. Likewise, Stark and Wang (2002) state that migration may have a positive effect on educational investments in developing countries as it is used as a substitute for education subsidies.

The net effect for international migration will depend on whether remittances or absenteeism of parents have the larger effect. It is not clear a priori which effect will be larger; after

controlling for the absenteeism of migrant family members, the positive effect of remittances may lose its statistical significance. Based on Dominican Republic data, Amuedo-Dorantes and Pozo (2010) concluded that migration of family members offsets the positive effect of remittances. On the other hand, Hu (2012) found that for the case of internal migration in China, the positive effect of remittances partially compensates for the negative effect of absenteeism of parents. And, Borraz (2005) found a positive but small effect of remittances on years of school for children living in remittances-receiving households in Mexico controlling for absent parents.

The main contribution of this paper is to extend the literature on international migration, especially for the Peruvian case, by exploring *the role of receiving international remittances in the quality of human capital formation of children left behind controlling by the absenteeism of parents*. Due to limitations in the data, the absenteeism of parents in this research may be caused by migration, divorce or other reasons. Using longitudinal data for Peru retrieved from the National Survey of Households (ENAHO), this paper focuses on the quality rather than the quantity effect of remittances on schooling by including an indicator for attending private schools instead of public schools. Unlike previous studies for Peru, this research includes data for the whole Peruvian coast and not only for the capital (Lima). Likewise, the amount of remittances is included in the analysis instead of a dummy indicator of receiving remittances.

The Peruvian case is different from other cases such as Mexico or Central American countries due to the geographical distance to the United States, which is the main destination country (32.6% of Peruvians migrated to the US over the period 1990–2009) that poses a high cost for Peruvian migrants. Thus, relatively more affluent people are more likely to migrate (Frisnacho & Oropesa, 2011) and they are less likely to have liquidity constraints to afford schooling costs. Hence, relatively small and even negative effects of remittances on schooling have been found in previous studies for Peru.² Yet international remittances in the Peruvian case should be explored beyond the quantity effect, i.e., years of schooling, and the effect of remittances on the quality of education should be included in the analysis.

The econometric analysis addresses the censored and endogenous nature of the remittances variable by applying a two-step panel data model proposed by Vella and Verbeek (1999). In addition, Random-Effects Probit and Pooled Probit with IV are undertaken as alternative econometric specifications. The main results show that international remittances have a positive effect on the likelihood to send children to private schools controlling for absenteeism of parents regardless the econometric specification employed.

The remainder of the paper is organized as follows: Section 2 presents a brief background of Peru related to the economy, remittances, and education. Section 3 outlines the model associated to the hypothesis proposed. Data and variable definition are presented in Section 4. The estimation strategy is discussed in Section 5. The results are discussed in Section 6, and Section 7 concludes.

2. PERUVIAN BACKGROUND

The Peruvian economy has made a remarkable progress since 1990 with indicators showing a high rate of economic growth, low rate of inflation, macroeconomic stability, and poverty reduction (World Bank, 2013). Moreover, Peru's average growth rate of 6.3% between 2002 and 2010 is considered

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات