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Migrant wages, remittances and recipient labour supply in a moral hazard model

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ABSTRACT

This paper analyzes the interaction between migrants' income and remittances and between remittances and the labour supply of residents. The model is cast as a two-period game with imperfect information about the residents' real economic situation. Residents subject to a good economic situation may behave as if they were in a poor economic situation only in order to manipulate remitters' expectations. The latter, being aware of this risk, reduce the remitted amount accordingly. Therefore, in the equilibrium, residents who really are victims of the bad economic outlook are penalized as compared to the perfect information set-up. In some circumstances, they can signal their type by drastically cutting working hours, thus further enhancing their precarity right when their economic situation is the worst.

1. Introduction

Often the decision to migrate from a developing to a developed country is guided by economic considerations; in general, migrants are able to get better economic opportunities in the host country than at home. The relatives left at home may also benefit from the migrants' successful integration.

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Indeed, once they found a job abroad, migrants tend to send a significant part of their income to their families back home. Over the past 15 years, international migrant remittances have become an increasingly prominent channel of financing the developing world, exceeding official aid and getting close to the FDI flow (Ratha, 2005). According to a recent study by the International Fund for Agricultural Development and the Inter-American Development Bank, in 2006 the flow of remittances towards the developing countries reached 301 billion US dollars.[1]

Such a substantial amount of external funding must have an impact on the macroeconomic equilibrium of developing countries. Several authors studied the impact of remittances on inequalities and poverty in receiving countries (Adams, 2006; Adams and Page, 2005; Lopez-Cordova, 2006; Adams, 2004). They show that remittances contributed to fighting poverty (measured by the account index) and especially to reducing the depth of poverty (measured by the poverty gap index) and the severity of poverty (measured by the squared poverty gap).

While this positive effect on poverty reduction should not be underemphasized, remittances may also bring about some unpleasant consequences. In particular, by increasing the recipients' wealth, remittances can undermine their incentives to work, which, in turn, would slow down economic growth. Several studies have investigated the effect of remittances on labour supply in an empirical set-up without reaching a clear-cut conclusion. For instance, Rodriguez and Tiongson (2001) show that Filipino households with temporary overseas migrants tend to reduce their labour participation and hours worked. Airola (2005) observes a negative elasticity between remittances and labour supply in Mexico. Analyses by Cox-Edwards and Rodriguez-Oregia, 2007 and Amuedo-Dorantes and Pozo (2006), also based on Mexican data, observe a negative relationship between remittances and labour supply only in narrow segments of the population. Drinkwater et al. (2006) build a standard labour market matching model where remittances on the one hand decrease the opportunity cost of unemployment, and on the other hand, support job creation through capital accumulation; their empirical analysis suggests that the latter effect takes over the former.

Some authors have emphasized that the asymmetric information between the remitter and the recipient may provide another transmission channel for the negative effect of remittances on residents' effort. For instance, Chami et al. (2005) analyze the impact of remittances when the resident who gets these resources is able to hide his effort to the remitter. In their model, the migrant is altruistic: his utility depends on the utility of the family he left at home. They show that remittances bring about two contradictory effects: on the one hand, an increase in remittances will reduce recipients' work effort because they become less concerned about the risk of getting a small income from work; on the other hand, firms react to additional opportunism by increasing the dispersion of wages in order to stimulate work effort. Since the feed-back effect cannot offset the direct one, remittances have a negative net impact on output.[2] Azam and Gubert (2005) analyze the migration of a family member as part of a diversification strategy that seeks to protect households from income uncertainty specific to agricultural production. Residents are assumed to get remittances only if their income falls below a given threshold. The authors highlight a moral hazard problem: households that can receive remittances tend to decrease their work effort, thus the probability that the output falls below the critical threshold increases.

This paper analyzes the relationships between migrants' income, amount of remittances and recipients' labour supply in the presence of moral hazard. The analysis focuses on the case of international migrants, but would apply to inland migrations as well, for instance from rural areas to industrial cities, with the remark that the informational gap should be stronger in the case of international migrations.

The model is cast as a two-period game between a migrant who makes a transfer and a resident who benefits from the transfer, given asymmetric information about the real situation of the recipient. Both the migrant and the resident maximize their intertemporal utility. The model builds on the

[1] The study provides estimate for both official and unofficial flows of remittances. See http://www.ifad.org/events/remittances/index.htm. Official flows only were estimated to 207 billion US dollars by the World Bank (2007).

[2] This formalization is much in line with those used in models of altruistic transfers within families (Barro, 1974; Becker, 1974; Laferrère and Wolff, 2006; and especially Gatti, 2005).