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Remittances, transaction costs, and informality☆

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Abstract

Recorded workers' remittances to developing countries reached $167 billion in 2005, bringing increasing attention to these flows as a potential tool for development. In this paper, we explore the determinants of remittances and their associated transaction costs. We find that recorded remittances depend positively on the stock of migrants and negatively on transfer costs and exchange rate restrictions. In turn, transfer costs are lower when financial systems are more developed and exchange rates less volatile. The negative impact of transactions costs on remittances suggests that migrants either refrain from sending money home or else remit through informal channels when costs are high. We provide evidence from household surveys supportive of a sizeable informal sector.

JEL classification: F21; F22; F30
Keywords: Remittances; Migration; Money transfer fees

1. Introduction

Recorded flows of workers' remittances to developing countries have grown from about $70 billion in 2000 to more than $150 billion in 2005 (World Bank, 2006). Such high levels and rapid growth rates have brought increasing attention to remittances as a potential tool for development. Understanding the determinants of remittances is important because these flows reduce poverty, allow recipients to smooth consumption, and are also used for investment purposes (World Bank, 2006, Chapter 4). In times of severe economic distress, remittances may be the primary source of income for many families, as in Zimbabwe today (Wines, 2007).

The main motivation of this study is to explore the determinants of remittances. We find that the number of migrants is the primary determinant of official remittances: an increase in the stock of migrants residing in OECD countries leads to a roughly proportionate increase in recorded remittances. We also find that high transaction costs significantly reduce recorded remittances: a one percentage point reduction in transaction costs raises recorded remittances by 14–23%.

Our analysis offers three contributions. First, in exploring the determinants of remittances, we improve on the previous literature by including migrant stocks and transaction costs in the estimation. Previous work by Aggarwal and Spatafora (2005) and Sayan (2006)

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examined the effects of income on remittances, but their work focused on the cyclicality of remittances and did not include migration nor transactions costs, two important determinants of remittances. In contrast, Faini (2006) focuses on differences in remitting patterns between educated and uneducated migrants, and includes migrant stock but neither transactions costs nor other variables that we find to be important. IMF (2005) and World Bank (2006) offer a survey of the literature.

Second, we collect new data on the cost of sending money home and explore how transaction costs vary with source and home country features. We find that transaction costs are systematically related to lack of financial depth and exchange rate volatility. Policies that encourage financial development in the migrant's home country and that reduce exchange rate volatility will help lower official transactions costs.

Third, we provide new evidence about informal remittance flows. The analysis indicates that transactions costs have a large and statistically significant effect on recorded remittance receipts. This is consistent with migrants either refraining from remitting money, or else remitting large amounts through lower cost informal channels when official transaction costs are high. Evidence from household surveys and from changes in remittances over time supports the informal-channel mechanism. Household surveys find that transaction costs largely affect the way that remittances are sent and not the amount that is sent. These surveys also provide evidence of large informal remittance flows in many countries. In addition, there exists a negative correlation between annual changes in recorded remittances and changes in Net Errors and Omissions (NEO) from the balance of payments. This suggests that increases in recorded remittances are partially offset by declines in informal remittances. Finally, market observers suspect that, globally, informal flows range from 50% to 250% of recorded flows.[1]

The paper proceeds as follows. The next section discusses our data, including in particular a new dataset on the transaction costs associated with sending remittances; we also focus on the problems associated with measuring remittance flows. Section 3 presents results on the determinants of both remittances and the associated transaction costs, using both cross-sectional and panel techniques. Section 4 develops some insights into informal remittance flows, both by examining survey data on remittances and how they are transmitted, and by analyzing the relationship between NEO and recorded remittances. Section 5 concludes.

2. The data

2.1. Remittance inflows

We collected a panel of aggregate data on remittances from the IMF's *Balance of Payments* statistics. The dataset covers up to 104 countries for which workers' remittances are reported during 1995–2003. On average, we have five observations per country. As is standard practice, we define remittances as the sum of three items in the *Balance of Payments* statistics: "Compensation of Employees," "Workers' Remittances," and "Migrants' Transfers." Adjustments are however made for a number of countries, following the advice of IMF country desks and national authorities.[2]

Remittances can in general be sent through either formal or informal channels. Throughout the paper, we define informal remittances as money transfer services that do not involve formal contracts and hence are unlikely to be recorded in national accounts. Formal channels include money transfer services offered by banks, post office banks, non-bank financial institutions, foreign exchange bureaus, and money transfer operators (MTOs) like Western Union and MoneyGram. Informal channels include cash transfers based on personal relationships through business people, or carried out by unofficial courier companies, friends, relatives or oneself.[3]

In addition to not capturing the informal sector, remittance data in the balance of payments do not always include transactions through MTOs. One study of 40 central banks in developing countries around the world indicates that about 60% do not record data from small MTOs that do not settle through banks (De Luna Martinez, 2005). Because of this under-recording, a portion of formal remittance transactions will end up in the statistical discrepancy in the balance of payments.

[1] Celent (2002) estimated that informal remittances would account for 35% of total remittances (or 54% of recorded remittances) in 2006. AITE (2005) reports that total remittances currently exceed IMF estimates by 250%.

[2] See the Appendix for a fuller discussion of the definition of remittances and of the various adjustments made to the data. The IMF *Balance of Payments Manual* (IMF, 1993) sets out formal definitions and classifications, while the IMF *Balance of Payments Statistical Yearbook*, Part 3, illustrates the diversity of approaches, sources, and methods used by different countries. In general, data weaknesses are due to difficulty in obtaining the precise data. See IMF (2005), Box 2.4, for a detailed discussion of the measurement practices of national statistical agencies and potential improvements.

[3] Pieke et. al. (2005) provide a survey of informal market definitions, costs, and systems.