What Drives Remittance Flows?

Understanding the motivations for remitting is necessary for analyzing the wider economic consequences of remittances, for at least two reasons. First, the amount that a migrant transfers to family members remaining at home at any given time depends, among other things, on the migrant’s underlying motivations to go abroad and to remit funds in the first place. The size and timing of remittance flows in turn determine their effects on economic activity in the receiving country. Second, the intended purpose of remittances affects the end uses of these funds, and the uses to which recipients put them is also an important determinant of their economic impact on the recipient economy.

Ideally, the literature on the causes of remittances would provide a list of the main variables that drive remittances and predict the expected relationship between these causal factors and the size and timing of remittance flows. In addition, this literature would also provide a set of stylized facts about the economic activities that remittances fund, including evidence on whether the uses of remittances change in response to changes in the factors driving the remittances. This information could be incorporated into theoretical and ultimately empirical models and hence improve our ability to discern the impacts of remittances on recipient economies.

Unfortunately, the existing literature on the causes and uses of remittances falls far short of these ideals, though not for lack of effort. The proliferation of studies on these issues has tended to increase confusion about the causes of remitting behavior and the uses of remittances, rather than improve our understanding of these activities. In part, this confusion has resulted because remitting is a deceptively simple activity whose true complexity research has gradually revealed. Part of the confusion also stems from limitations in the data, which place severe constraints on the types of questions that can be asked and the conclusions that can be drawn from statistical analyses. Several of the key limitations of the existing aggregate data on remittances are by now well known, and Chapter 3 adds further important cautions about these aggregate data. In addition, the microeconomic data sets in existence have not necessarily been constructed for the purpose of studying remittances and typically do not ask the questions of greatest interest to researchers studying remittances. Finally, the data sets are not comparable across samples in terms of content or methods of measurement, so the results from studies on remittances cannot be compared easily. In short, the lack of cross-country longitudinal data on the behavior of individual remittance-sending and remittance-receiving households is keenly felt.

Much of the confusion, however, stems from the lack of a universally accepted framework for characterizing and interpreting the research on remittance determination. In particular, it has become difficult to distinguish, either theoretically or empirically, among several of the theories of remittance determination that have recently appeared in the literature. This prevents scholars in the area of remittances from reaching consensus regarding the phenomenon’s causes. Thus, this chapter’s immediate goal is to establish a useful basis for classifying and distinguishing among theories of remittance determination. Doing so will clarify the implications, for the economic impacts of remittances, of the factors driving these flows. In the analysis that follows, we specify our framework for analyzing remittance determination, use the framework to resolve the confusion present in the literature, and discuss the implications of the literature on the causes of remittances for the phenomenon’s economic impact.

Factors Driving Remittances

Theory

The remittance-determination process has three aspects that jointly influence whether a migrant remits, and if he or she does so, the timing and quantity of the remittances he or she makes. Although all three aspects are present, at least implicitly, in the literature, the analysis presented in this chapter is the first that recognizes them explicitly and clarifies their relationship to each other.

To identify these aspects, consider remittance determination on the most basic level. When migrants remit funds to their families, they do so because they believe they can increase their own utility by doing so. Let us use the term motivation for remitting to denote the
aspect of the remitter’s utility function that generates utility from remitting. The literature identifies only two basic motivations, under this definition, for remitting: altruism and self-interested exchange, which we’ll simply call the exchange motivation. Altruism motivates remittances because the recipient’s utility (or consumption) is an argument in the remitter’s utility function, so the remitter derives utility from the recipient’s consumption, which is funded in part by the remittances sent. Exchange, on the other hand, motivates remittances because remittances are a resource belonging to the remitter that may be exchanged for goods and services that provide utility to him or her.

The desired increase in utility that motivates the migrant to remit needs to be fulfilled through some concrete means. The remitter, perhaps in cooperation with the remittance recipients, formulates a plan for using the remittances, which we call the intended use of the remittances. Although the remitter’s intended uses of remittance funds may be quite specific (that is, the remitter may want the recipient to purchase particular goods, services, and assets), they may also be quite general. But whether these intended uses are narrowly or broadly specified, they fulfill one of only a few basic economic functions. Therefore, we classify the intended uses of remittances by their economic purpose. According to this view, remittances have two main (intended) uses: risk sharing (insuring) and altering the intertemporal path of consumption (consuming, saving, and investing). In addition, some (and perhaps many) households use a portion of the remittances received from the migrant to purchase services to replace the migrant’s labor contributions to the household. These transfers enable migration to take place, so they are “overhead” costs of migration that must be paid and hence are derived from the original decision to migrate (and remit).

Remittance recipients are the ones who have responsibility for implementing the remitter’s plan, once they receive the transfer. They make specific purchases or investments, which we call the end uses of the remittances. Money sent by the remitter ends up being spent on the purchase of final goods and services (for consumption), of financial assets (including being held as cash), or of real assets (including human capital). There is, in short, a remittances accounting identity that describes the end uses. Because of asymmetric information, the remitter cannot dictate the end uses of remittance funds to the recipient. Therefore, the end uses lie along a continuum ranging from completely congruent with the remitter’s intended uses to completely contrary to them. The remitter understands this and adjusts his or her remitting behavior accordingly. Therefore, the end uses of remittances play an important role in remittance determination.

The framework described in the foregoing implies that each theory of remittance determination pairs an underlying motivation for remittances with an intended function and may also specify one or more end uses of the remittances that are consistent with (or even specifically implied by) the motivation and intended function. Thus, we fully characterize remitting behavior by describing its motivation, its intended function, and its end use. For example, one migrant may be altruistically motivated to insure her family, so she remits funds that are spent on consumption goods. On the other hand, another migrant may have an exchange motivation to smooth consumption and hence remits money to his family in part to purchase assets for him and in part to pay the family member(s) a fee for their agency in making the investment on his behalf (in real property, for example). The family members, in turn, may consume or invest the payments received for these services. Of course, it is possible (if not likely) for a particular remittance transaction to have both altruistic and exchange motivation, both risk sharing and consumption smoothing as intended functions, and multiple end uses as well.

This view of the remittances process leads to two important realizations about theories of remittance determination. First, such theories cannot be distinguished from one another solely on the basis of end uses or even intended functions. The intertemporal time path of both consumption and risk sharing can be altered through adjusting all three of the end uses of remittances described previously. And each intended function of remittances is consistent with both motivations for remittances. Theories can be distinguished from one another only by specifying the complete path from motivation to end use. In short, the “insurance” or “inheritance” theories of remittance determination that appear in the literature are not complete theories but only parts (in this case, dealing with the intended function) of complete theories.

The second realization is that it does not make sense to compare the three aspects of remittance determination to one another. For example, it does not make sense to compare altruism (motivation) to insurance (intended use) as separate “theories” of remittance determination, because they do not describe the same aspect of the remittances phenomenon. In addition, as we argued earlier, they are not even mutually exclusive concepts. Indeed, a critical reading of the literature on the theory of remittance determination finds ample support for the idea that multiple motivations and intended uses for remittances can coexist.

Early approaches to the theory of remittances identified and described various costs and benefits to remitting, which tend to fall under the rubric of exchange motivation. Russell (1986) summarizes these costs and benefits. Stark and Bloom (1985) realized that the appropriate unit of analysis in attempting to answer questions about migration and remittances is the family, because the entire family is sharing—and trading
off—the costs and benefits of remitting. This approach leaves the door open for both altruistic and exchange motivations to remit, as we show later in the chapter.

Many economists, especially before the advent of the new economics of labor migration, acknowledged that family ties in the form of mutual caring are probably a prime motivation for remitting. The earliest studies on remittances, such as Johnson and Whitelaw (1974), mention altruistic motivations for remittances. Lucas and Stark (1985, p. 902) write that “certainly the most obvious motive for remitting is pure altruism—the care of a migrant for those left behind. Indeed, this appears to be the single notion underlying much of the remittance literature.” They go on to specify an altruistic utility function in which the migrant’s utility includes the consumptions of the other members of the migrant’s household. This, however, is the maximum extent of formalization of the altruistic model of remittances.

More recent theories have focused on the idea that there can be self-interested reasons for remitting as well, which nevertheless center on the family. These self-interested theories of remittances are still based on the family because they view the family as a business or as a nexus of contracts that enables the members to enter into Pareto-improving arrangements. Several different types of businesses or contracts are possible within these theories, which has led to various self-interested models of remittances. In the initial paper involving this sort of theory, Lucas and Stark (1985) suggest that migrants may have investments that need to be tended while they are away, so they use other family members as their agents. The remittances the migrant sends are employed to care for the migrant’s interests, but they also provide some compensation for the agents. Hoddinott (1994) emphasizes that the family left behind exercises leverage over the remitter. In Hoddinott’s paper, families reward high levels of remittances by increasing the remitter’s share in the inheritance of family lands. In both cases, remittances are at least partially motivated by exchange considerations, and the intended use of the remittances is to smooth consumption.

Another potential role for the family is that of a service provider. Stark (1991), as well as Aggarwal and Horowitz (2002) and Gubert (2002), suggests that the family can function as an insurance company that provides members with protection against income shocks by diversifying the sources of income. Yang and Choi (2007) show that agricultural families in the Philippines use remittances to compensate for income shocks, which are proxied by lack of rainfall. In these papers, remitters tend to provide insurance for other family members, whereas in Amuedo-Dorantes and Pozo (2006), the family provides insurance to the remitter, and the remittances function as the insurance premium. On the other hand, Poirine (1997), as well as Ilahi and Jafarey (1999), models the family as a bank that finances migration for some members. The borrowers remit funds to repay the loans that financed their migration, which are used for additional loans to further the interests of other individual family members. Finally, Secondi (1997) makes explicit the idea that remittances are used to purchase services to replace the migrant’s contributions to household production—in the case of Secondi’s study, remittances purchase child care services from the migrants’ family or in-laws.

One of the main messages of the theoretical literature on the causes of remittances is that there exist plausible exchange motivations as well as altruistic motivations for remittances. But one point that the recent literature does not sufficiently acknowledge is that altruistic and exchange motivations can coexist. For example, the exchange motivation’s implicit contracts require enforcement mechanisms to function properly, and these enforcement mechanisms are likely to be based on altruism. Chami and Fischer (1996) show that altruism is a mechanism by which independent agents find partners with whom to enter into risk-sharing arrangements, which implies that altruism makes contracting possible in the first place. Altruism is also a potent enforcement mechanism for exchange-motivated remittances: migrants live up to their obligations because they care about the family members who are the counterparties to the agreement. This idea is explored in Stark and Lucas (1988).

But the role of altruism in remittance determination implied by the literature is too fundamental to be limited to serving only as an enforcement mechanism for implicit contracts. The more likely possibility is that both altruistic and exchange motivations for remittances are operative at the same time. A theoretical framework that allows for this possibility is provided in the work of Becker (1991) on merit goods (see also Chami, 1998, and Mulligan and Philipson, 2000). Merit goods are the most general expression of what a remitter “purchases” from a recipient. In addition to services that could be purchased on the market, they also include any nonmarket services the recipient renders to the benefactor, as in Bernheim, Shleifer, and Summers (1985) and Cox (1987), among others. Therefore, merit goods include all of the within-family exchanges previously described. But merit goods also include actions the recipient takes that directly enhance the recipient’s income and welfare without necessarily providing goods or services to other members of the family, including the remitter. For example, the altruistic remitter may expect a recipient to expend effort in finding a job or in choosing an investment project, or to excel in his or her job or investment. In this case, the merit good consists of the effort the recipient expends.

In a model in which both exchange (merit goods) and altruism motivate remittances, the remitter’s utility not only would encompass a concern for the recipient’s welfare, but also would involve certain expectations...
regarding the recipient’s behavior. More generally, the remitter’s utility function is given by $U_e(c_e, a, U_R)$, where $c_e$ is the emigrant’s consumption, $a$ is action the recipient takes, and $U_R$ is the recipient’s utility.

This generalized exchange view of the motivation to remit has profound implications for empirical tests of remittance determination, following results first shown by Chami (1998). Chami extends Becker’s merit good model to include an outside labor market whose outcome depends in large part on the actions taken by the recipient of remittance transfers. In this model, Chami explores the impact of familial transfers on recipients’ actions under perfect and complete information as well as in the presence of asymmetric information regarding the actions taken by the recipient of such transfers. One key finding is that it is not simple or straightforward to ascertain ex post which motivation for transfers is operative. In particular, analyzing the relationship between market outcomes and transfers does not reveal whether the altruistic or exchange motive is at work. In other words, Chami shows that the simple test used in earlier studies—such as Bernheim, Shleifer, and Summers (1985) and Cox (1987)—to ascertain which motive for transfers is at work fails when one allows for the case of more general merit goods and when one introduces outside market and informational problems into the analysis. These findings suggest that it is extremely difficult to distinguish between the altruistic and exchange motivations for remittances using data on market outcomes.

### Evidence

The empirical literature on remittance determination is even larger than the theoretical literature. In empirical studies of remittance determination, data on the amount and timing of remittances are correlated with data on the end uses of remittances, various measures of remitter and recipient characteristics, and economic indicators, with the intention of inferring the intended functions of and underlying motivations for remittances. Broadly speaking, three types of data are used to estimate remittance-determination equations. One type describes the economic conditions for the migrant and for the migrant’s family, including variables such as migrant income and family income. Another type involves demographic variables, some of which (such as education variables) proxy for income, and others of which proxy for the strength of the connection between the migrant and his or her family, as well as for any contracts or agreements that may exist between migrant and family. For example, the migrant’s length of stay in the host country, the size of the family left behind, and the number of other migrants in the family are frequently used in remittance-determination equations that employ macroeconomic data, and the stock of migrants in the host country is commonly used in macro-data studies. Finally, the third type of data describes the quality of the opportunities available for different end uses of the remittances. For example, many studies of remittance determination have included financial variables such as interest rates and black market exchange premiums, as well as proxies for political risk.

In general, most empirical analyses of remittance determination include some demographic variables such as the stock of migrants in the host country (or family characteristics, in the case of micro data), economic variables such as wages or income, and financial variables such as interest rates. The demographic and income variables tend to be significant in nearly all estimations, whereas the quality of opportunity variables’ significance varies, depending on the sample and specification. This is probably the most reliable stylized fact to emerge from the empirical literature on the causes of remittances. Variables that proxy for the migrant’s capacity to remit, such as income, as well as demographic variables that capture strength of family ties, seem to have consistently significant explanatory power for the amount and timing of remittances. Some studies have produced interesting comparisons of the remitting behaviors of different groups, but these comparisons do not necessarily help distinguish among different theories of remittance determination.

Despite the number and variety of empirical studies on remittance determination, one cannot use their results to distinguish among theories of remittance determination with much confidence. Various studies have claimed to find evidence of exchange or altruistic motivations for remittances, manifested in the various intended uses (insurance, inheritance, and so on) described previously, and many find evidence of both motivations. But given our theoretical framework, and the problems it reveals in the existing theoretical literature, many of these claims need to be reevaluated. Correlations observed in the data are consistent with multiple theories of remittance causation, so that there are very few (if any) conclusive ways to nest hypotheses and conduct tests among different theories. As the discussion of our theoretical framework in the previous section shows, nearly any end use of remittances is consistent with each of the intended functions and motivations for remittances, making the theories quite difficult to distinguish from one another empirically, using end-use data. Using data on remitter and recipient characteristics to distinguish among theories encounters similar difficulties. A positive or negative coefficient

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2. See, for example, Merkle and Zimmerman (1992), Funkhouser (1995), de la Brière and others (2002), and Vanwey (2004).

3. Recall that in our framework, each theory of remittances pairs a particular motivation with a particular intended use for the remittances (and possibly a particular end use as well).
on a particular explanatory variable, in other words, may be consistent with multiple theories, rendering interpretation of empirical results difficult. In addition, as mentioned previously, the generalized exchange or merit good motivation for remittances is very difficult to distinguish from altruistic motivation ex post. And finally, a single remittance flow may have several components, each corresponding to a completely different theoretical chain of causation. This may introduce variability into the estimations, via errors in variables, that reduces statistical significance.

This identification problem features prominently in Docquier and Rapoport (2006), which attempts to organize the literature on remittances to find ways to distinguish theoretically and empirically among remittance-determination theories. Docquier and Rapoport find relatively few testable differences among the various models they examine. In view of the analysis presented in the previous paragraph, it is not surprising that these authors encounter this problem. In addition, Docquier and Rapoport’s paper confounds the three links in the remittance chain, leading the authors to improperly multiply and attempt to compare partial theories of remittance determination. In particular, the paper acknowledges “altruism,” “exchange,” “inheritance,” “strategic motive,” “insurance,” and “investment” theories of remittance determination. These concepts actually describe partial theories of remittances that are not necessarily mutually exclusive or even directly comparable. And even the tests that Docquier and Rapoport suggest may not necessarily be conclusive, given our argument earlier in the chapter that each of the motivations can be matched with any of the intended functions and end uses of remittances to form distinct (though not necessarily empirically distinguishable) theories of remittance causation.

The unfortunate conclusion that emerges from an assessment of the literature on remittance determination, therefore, is that neither the theoretical nor the empirical findings have clear implications for the economic impacts of remittances. But two alternative ways to use the ideas and findings from this literature may yet yield some insights. One possibility is to reconsider the literature on remittance determination and recharacterize it in a way that renders it more useful for thinking about remittances’ economic impacts. A second possibility, reexamining the literature in regard to microeconomic data on remittances’ end uses, is discussed in the chapter’s final section.

Rather than attempt to find the most accurate or realistic theory of remittance determination, we can instead focus on the most important distinction among theories from the perspective of economic impact: whether remittances are predominantly compensatory or opportunistic in nature. That is, are remittances primarily sent to compensate their recipients for unfavorable economic conditions such as poor endowments or temporary income shortfalls, or are they sent primarily to take advantage of high returns or other favorable economic conditions? Note that compensatory transfers may be motivated by either altruism or exchange and may take the form of altering the expected consumption path or providing insurance. Similarly, opportunistic transfers are also consistent with multiple motivations and intended uses of remittances. But the economic impact of remittances changes dramatically, depending on how they respond to (changes in) economic conditions in both the home and host countries. This point is best made by emphasizing that if remittances are predominantly opportunistic transfers that are sent to take advantage of (relatively) favorable economic conditions in the home country, then they are similar to capital flows and thus can be analyzed as another type of capital inflow. But if remittances are primarily compensatory, then they are very different from capital flows, and their economic impacts will also be different.

Because the theory of remittance determination provides very little guidance, the compensatory-versus-opportunistic issue has become a largely empirical question. Some researchers find evidence that remittances respond positively to interest rate differentials or other indicators of favorable investment conditions in the home country. On the other hand, others find that remittances function like insurance, which is a compensatory transfer. Similarly, a recent paper by Yang (2007) employs a global data set on hurricanes to show that remittances increase to countries that experience these natural disasters.

The best evidence to date on the compensatory-versus-opportunistic question is found in Chami, Fullenkamp, and Jahjah (2005). In this paper, the authors estimate a panel regression in which the dependent variable is a country’s remittances-to-GDP ratio. The explanatory variables are the difference between the country’s per capita GDP and U.S. per capita GDP, and the interest rate differential between the country and the United States. A negative coefficient on the income gap variable would indicate a compensatory nature for remittances, whereas a positive coefficient on the income gap variable or on the interest rate differential would indicate opportunistic remittances. The results of the estimations reveal that the coefficients on the income gap variable are negative and highly significant, whereas those on the interest rate differential are positive but small and insignificant. These results provide strong cross-country evidence that remittances are better described as compensatory transfers than as opportunistic ones.4

4The World Bank (2006) finds evidence for both compensatory and opportunistic remittances in a sample of Latin American countries, but unfortunately all the empirical exercises in this work use a measure of remittances that sums workers’ remittances with migrant transfers and employee compensation. See Chapter 2 for a discussion of why this makes the interpretation of the study’s results problematic.
In the current study, examination of the correlations among workers’ remittances, interest rate differentials, income differentials, and changes in nominal exchange rates using the latest and most complete data available confirmed the results of Chami, Fullenkamp, and Jahjah (2005). In particular, data on workers’ remittances were constructed as described in Chapter 2 and the following remittance-determination equation was estimated:

\[ \log(\text{workers’ remittances/GDP}) = b_0 + b_1(r_i - r_{US}) + b_2(y_{US} - \gamma) + b_3\Delta E + \varepsilon, \]

where \( \log(\text{workers’ remittances/GDP}) \) is the log of the ratio of workers’ remittances to GDP, \( r_i \) is a real deposit or money market interest rate, \( \gamma \) is real GDP per capita adjusted for purchasing power parity, and \( \Delta E \) is the change in the nominal exchange rate, where an increase represents a depreciation of the currency in country \( i \) relative to the U.S. dollar.

The interest rate differential is a proxy for the investment opportunities in the remittance-receiving country. A positive coefficient on the real interest rate differential implies that remittances behave like other opportunistic capital flows. On the other hand, a positive coefficient on the income differential indicates that remittances are countercyclical, since they increase when the income gap between country \( i \) and the United States widens and decrease when the income gap narrows. A countercyclical result, if significant, has been interpreted as an indicator of compensatory remittance behavior.

The inclusion of the change in the nominal exchange rate is useful for examining whether migrants tend to remit more or less in response to exchange rate depreciations. Some researchers suggest that exchange rate movements may induce (opportunistic) portfolio-rebalancing effects, whereas others suggest that exchange rate changes can be a mechanism for smoothing remittance flows in terms of purchasing power in local currency. The latter hypothesis would argue that a remitter who sends $100 home to country \( i \) every month might choose to remit less in response to a depreciation of the country’s currency, since the lower amount in dollar terms might still represent an equivalent or greater purchasing power when converted into local currency (equivalent or greater, that is, to the purchasing power of $100 under the previous exchange rate). The remitter could then save the difference between the remitted amount and the $100 norm for a later period of currency appreciation, when each dollar remitted would not be worth as much in the home country as it is currently.\(^6\)


\(^5\)The use of the term countercyclical is intended to imply a negative relationship only between the income gap, which exhibits cyclical variation, and remittances.

\(^6\)It may also be true that remittances cause the currency of country \( i \) to appreciate in value relative to the dollar. In this case, a higher remittances-to-GDP ratio would be negatively correlated with exchange rate changes.
the latter two time periods selected to allow examination of globalization effects and post–September 11 effects, respectively. Tests were conducted using pooled estimation (i.e., population average), fixed effects, and random effects. The results are reported in Tables 4.1–4.3, and the main results are presented here.

First, workers’ remittances decrease in response to currency depreciations. The regression results indicate that depreciations in the value of the recipient country’s currency relative to the dollar result in a lower ratio of workers’ remittances to GDP. Results are significant at the 5 or 10 percent level in most cases. This could be interpreted as compensatory behavior, with remitters smoothing the relative purchasing power of the remittance in domestic currency in response to changing nominal exchange rates.

Second, interest rate differentials are not a significant determinant of remittance flows until after 2001. In the full data set from 1970 to 2005, real interest rate differentials standing alone are a significant determinant of the remittances-to-GDP ratio, though their explanatory power in terms of $R^2$ is very low. Once income differentials are added to the regressions, real interest rate differentials lose their significance. After 2001, however, real interest rate differentials are not significant on their own but become significant after income differentials are included in the regressions. Furthermore, the coefficient on interest rate differentials is negative in the latter case, indicating that a widening of the real interest rate gap in favor of country $i$ actually leads to less remittances. We should interpret these results with caution, since real interest rate differentials may simply have been narrowing consistently during the four-year period from 2001 to 2005 while remittance flows were rising. In other words, we may not be capturing a full interest rate cycle, which would enable us to interpret the results with certainty.

Finally, income differentials are a highly significant determinant of remittances, with the results in favor of countercyclicality. In each of the three subperiods, widening income differentials lead to additional workers’ remittances in terms of GDP. The coefficient varies little across the various tests and is significant at the 1 percent level in nearly all cases. This corroborates the Chami, Fullenkamp, and Jahjah (2005) findings that remittances are countercyclical; increases in the remitter’s income (proxied by income in the United States) or decreases in income of the remitter’s family (proxied by domestic income) lead to greater workers’ remittances. Thus, the data provide a strong indication that remittances behave like compensatory transfers such as insurance, rather than like opportunistic transfers such as capital flows.

### Uses of Remittances

The previous section discussed one way of reusing the ideas and findings from the existing literature on...
remittances to yield insights into the remittances phenomenon: reconsidering the literature on remittance determination in a way that makes it yield more useful insights into remittances’ economic impacts. Another way to use the existing literature on remittances is to examine the microeconomic data on the end uses of remittances carefully. Such data have been collected and analyzed in many studies of remittances, though they have not necessarily been used in remittance-determination studies.

As mentioned at the beginning of this chapter, remittances’ economic impact depends to a great extent on their end uses: whether they fund current consumption or asset accumulation. Thus, the end uses of remittances are one of the main debates in the literature on remittances, and numerous papers and anecdotal reports have been written about the uses of remittance funds. In general, the anecdotal reports observe that recipients use remittances to increase family consumption. We believe, however, that three stylized facts emerge from the literature on this topic.

The first stylized fact is that a significant portion, and often the majority, of remitted funds are spent on consumption (e.g., Oberai and Singh, 1980, and Durand and others, 1996). Gilani, Khan, and Iqbal (1981) found that most of the remittances to their sample of households in Pakistan were spent on consumption, followed by residential investment. Glytsos (1993) identified a nearly identical spending pattern for remittances to Greece. The Inter-American Development Bank’s Multilateral Investment Fund (2004) determined that consumption accounted for between 60 and 80 percent of the remittance use in a sample of five Latin American countries, and the World Bank (2006) also identified this pattern for a larger sample of Latin American countries. Some studies, however, do find a smaller propensity to consume out of remittances than out of other income. Adams (2005) obtains this result in a study on households in Guatemala, for example.

The second stylized fact is that a significant, though generally smaller, part of remittances does go into uses that we can classify as saving or investment. Alderman (1996) and Adams (1998), using survey data for Pakistan, found that remittances tend to be invested in land and buildings. Brown (1994), using survey data for Western Samoa and Tonga, determined that housing expenditures are the single largest expenditure out of remittance income. Adams (1991) found in a sample of 74 Egyptian households that the receipt of remittances increases the marginal propensity to invest, primarily in residences and land. Several of these studies also found that the main uses of those remittances not spent on consumption are expenditures on housing and financial assets (bank deposits).

### Table 4.3. Determinants of Workers’ Remittances, 2001–2005

<table>
<thead>
<tr>
<th>Dependent variable: log (workers’ remittances/GDP)</th>
<th>Population</th>
<th>Fixed Effects</th>
<th>Random Effects</th>
<th>Specification</th>
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</thead>
<tbody>
<tr>
<td>Constant</td>
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<td>(23.10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>–4.951***</td>
<td>(14.7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>–5.000***</td>
<td>(20.94)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>–8.627***</td>
<td>(13.97)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>–4.233***</td>
<td>(3.69)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>–7.651***</td>
<td>(10.94)</td>
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<td>–8.662***</td>
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<td>(3.91)</td>
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</tr>
<tr>
<td></td>
<td>–7.794***</td>
<td>(11.12)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>((\tau_i - \tau_{US}))</td>
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<td>(1.09)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>–1.405</td>
<td>(1.40)</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>–1.348</td>
<td>(1.36)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>–1.605</td>
<td>(1.26)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>–1.927**</td>
<td>(2.10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>–1.587**</td>
<td>(1.75)</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>–1.683</td>
<td>(1.33)</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>–1.934**</td>
<td>(2.11)</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>–1.646*</td>
<td>(1.82)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(\gamma_{US} - \gamma)</td>
<td>0.000</td>
<td>(6.19)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.000</td>
<td>(0.60)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.0001***</td>
<td>(4.02)</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>0.0001***</td>
<td>(6.24)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.0000</td>
<td>(0.28)</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>0.0000</td>
<td>(4.22)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(dE)</td>
<td>0.612*</td>
<td>(1.67)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.363</td>
<td>(1.37)</td>
<td></td>
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<tr>
<td></td>
<td>0.543**</td>
<td>(2.10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td>412</td>
<td>412</td>
<td>412</td>
<td>397</td>
</tr>
<tr>
<td></td>
<td>397</td>
<td>397</td>
<td>397</td>
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</tr>
<tr>
<td>R-squared within</td>
<td>0.006</td>
<td>0.006</td>
<td>0.006</td>
<td>0.015</td>
</tr>
<tr>
<td></td>
<td>0.006</td>
<td>0.006</td>
<td>0.006</td>
<td>0.015</td>
</tr>
<tr>
<td>R-squared between</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.211</td>
</tr>
<tr>
<td></td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.211</td>
</tr>
<tr>
<td>R-squared overall</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.235</td>
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<tr>
<td></td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.235</td>
</tr>
</tbody>
</table>

Note: \((\tau_i - \tau_{US})\) is the interest rate differential between country \(i\) and the United States. \((\gamma_{US} - \gamma)\) is the income differential between the United States and country \(i\) adjusted for purchasing power parity, and \(dE\) is the change in the nominal exchange rate. The absolute value of the relevant test statistic is given in parentheses.

*significant at 10 percent level; **significant at 5 percent level; ***significant at 1 percent level.
The third and final stylized fact emerging from the literature on the end uses of remittances is that the household saving and investment that remittances fund is not necessarily productive in terms of the overall economy of the migrant’s home country. Several researchers emphasize that expenditures on housing, land, and even jewelry constitute saving and investment, at least for the individual household that makes the expenditures. Although this is true, the effects of such saving on a country’s overall economic activity should be considered carefully. When land and existing houses change hands, for example, this obviously does not represent a change in aggregate investment. Sofranko and Idris (1999) showed in the case of Pakistan that very little of the remittances received from Pakistani migrants to the Middle East is channeled into actual business investment. Lopez and Seligson (1991) surveyed small businesses in El Salvador to measure the impact of remittances on small business development and reported that 40 percent of business owners who receive remittances do not invest any of the remittance funds in their businesses.

Two papers are often cited as exceptions to these stylized facts, but their results must be interpreted with great care. The first is Taylor (1992), which found in a sample of 55 farm families in Mexico that greater remittances are associated with increased holdings of cattle. The author noted, however, that cattle are the preferred store of wealth in this rural area, because most of the land owned by the farmers is “reform land” that is not allowed to be sold. Thus, it is not clear whether the acquisition of additional cattle in Taylor’s study represented the creation of new productive assets or simply their transfer. The only other asset appearing in Taylor’s econometric specification is human capital, in the form of education, which was not significantly affected by remittance receipts.

The second paper often cited in favor of remittance-funded investment is Woodruff and Zenteno (2001). This paper primarily investigated the correlation between migration and small business investment in Mexico, employing state-level data; remittances were used as an additional, alternative measure of the amount of migration from a particular state. The authors found a positive correlation between the amount of migration and business investment in a state. It is crucial to realize, however, that the migration these authors discuss includes migrants’ return to their home country and starting new businesses. Moreover, the remittance data the authors used include migrant transfers, which are the monies brought home by returning migrants. Thus, this paper sheds relatively little light on the role that workers’ remittances, properly defined, play in funding small business investment.

A broad picture emerges from these stylized facts. Migrant remittances are used to increase the well-being of the migrant’s family, primarily through enabling an increase in consumption, but also through enabling (possibly substantial) increases in the family’s stock of wealth. But because of families’ preference for certain assets like houses and land, the increase in household wealth does not necessarily imply a corresponding increase in the overall economy’s stock of productive capital.

The findings on end uses of remittances complement the evidence presented previously that they are compensatory transfers. If the primary purpose of remittances is to compensate family members for bad economic conditions, it is reasonable to expect that the bad conditions are associated with depressed consumption levels, including a lack of consumer durables such as good-quality housing. Therefore, remittance recipients use the funds to bring the family closer to its desired standard of living through the purchase of consumption goods, services, and consumer durables. Of course, investments in productive capital can also help the family overcome bad economic conditions, so remittances may be used to fund these purchases as well, but only after the family’s more-pressing consumption needs are satisfied. In addition, the allocation of remittance funds depends on the exact opportunity set available to the family.

Taken together, the theoretical and empirical literatures on remittance determination describe a complex interaction between migrant and family that does not fit neatly into any single theory. Nonetheless, the sum of the evidence suggests that remittances are motivated by factors much different from those that drive other international financial flows and hence that their economic impacts are quite different from those resulting from other financial flows. In particular, the important role altruism plays in the theoretical literature, the empirical evidence of transfers’ compensatory nature, and the predominance of consumption in the end uses of remittance funds all indicate that remittances attempt to compensate the receiving economy for poor economic performance. The fact that remittances are non-market transfers serves to widen further the distinction between remittances and other international financial flows. The economic impact of remittances may therefore be more similar to the impacts of public, non-market compensatory transfers—in other words, public social insurance programs or aid flows—than to those of profit-driven capital flows.

The state of the literature on the causes of remittances does have one notable policy implication. It was mentioned early in this chapter, before any literature was reviewed, that cross-country longitudinal studies of remittance determination are needed. A review
of the existing literature on remittance determination emphasizes the severity of this need. Because of the theoretical and empirical issues discussed in this chapter, it appears that the best way to resolve the lingering questions regarding the predominant motivations for and intended and end uses of remittances is to conduct a cross-country longitudinal study that follows a cohort of migrants and their families over time as they face migration, remittance, and repatriation issues. This study must ensure collection of accurate data on both the remittances themselves and their end uses as well. And it must involve conducting interviews of migrants and family members to determine, as closely as possible, how decisions about migration and remittances are actually made. Although further studies of the sort discussed within this chapter will doubtlessly continue to shed some light on remittance determination, they simply cannot provide answers of the sort that will give policymakers the understanding they need of the role that remittances actually play in a country’s economic development.

References


References


