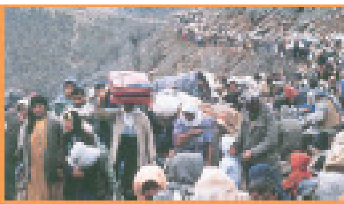

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Impact of Global Trade and Migration

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Launched in 1999, the Global Development Network (GDN) is an international organization of research and policy institutes promoting the generation, sharing, and application to policy of multi disciplinary knowledge for the purpose of development.

Home country business cycles and remittance fluctuations

Serdar Sayan

Growing importance of remittances

The nominal value of official remittance receipts by developing countries increased by almost 50 percent in just three years after 2001 (Maimbo and Ratha, 2005[1]), nearly doubling in the next three to reach $250 billion in 2007 by the World Bank estimates. Thanks to this rapid growth, these amounts now compare favorably, not only to official development assistance (ODA) receipts of developing countries, but also to foreign direct investment (FDI), and private capital flowing into these countries in the form of private debt and portfolio equity from abroad. Remittances favorably compare to FDI and non-FDI flows (except ODA) also because they are unilateral transfers that do not create such future liabilities as debt servicing or profit transfers, and are typically less volatile than private capital flows and FDI (Ratha, 2003[2]).

Despite this relative stability, remittance receipts also go up and down over time in many countries. While the literature on the determinants of remittances has failed to produce a consensus on the reasons behind these fluctuations in different recipient countries, these receipts were generally expected to increase in response to a contraction in economic activity (or a drop in GDP) in migrant workers' home countries. Given migrant workers' altruistic desire to smooth consumption spending of family members they might have left behind, this expectation was intuitively appealing. Plus, there was ample cross-country evidence (from large samples of developing countries) suggesting a negative relationship between GDP and remittance receipts. Still, a number of studies starting with Sayan (2004[3]) have recently challenged the generality of this argument for all countries individually[4].

Home country business cycles and remittances

Sayan (2004) observed that remittances are essentially transfers out of the savings of migrant workers: A worker who earns more than enough to cover his own living expenses abroad, plus the expenditures required to maintain living standards of family members back home (if any) decides what fraction of the remaining income to transfer to his home country based on various family characteristics[5]; the intensity of his altruistic desire to help maintain/improve living standards of his family; the duration of his stay abroad; and any other variable that affects his savings capacity plus his risk-return preferences.

In other words, how much to remit is a complex decision involving many other factors than simply an altruistic motivation to support household income of family members at home. Sayan noted in a follow up 2006 study: many of these factors could directly or indirectly affect how the remitting behavior of migrants would respond to fluctuations of GDP over different phases of home country business cycles,[6] possibly producing pro-cyclical (rather than counter-cyclical) co-movements between GDP and remittance receipts. While migrant workers would indeed be inclined to remit more during down cycles of economic activity back home (to balance lost family income due to recession), there might be other cases where an investment or portfolio-diversification motive dominates the altruistic rationale for the majority of migrant workers from a certain country (Sayan, 2006[7]). In such cases, remittance receipts of the country in question may actually decline during a recession there, due to resulting changes in the difference between home and host country returns to savings or increasing riskiness of financial assets at home.

Knowing whether remittances respond to cyclical movements of home country GDP in the same or opposite direction (i.e., pro-cyclically or counter-cyclically) for different recipient countries is important for two reasons. First, remittance fluctuations with opposite cyclical characteristics have opposite implications for the macroeconomic stability of the home economy. When they fluctuate counter-cyclically, remittances would serve as a macro-

1 Maimbo, S.M., and D. Ratha (2005). Remittances: Development Impact and Future Prospects, Washington, DC: World Bank.

2 Ratha, D. (2003). "Workers' Remittances: An Important and Stable Source of External Development Finance," in Global Development Finance: Striving for Stability in Development Finance, Washington, DC: World Bank, pp. 157-175.

3 Sayan, S. (2004). "Guest Workers' Remittances and Output Fluctuations in Host and Home Countries: The Case of Remittances from Turkish Workers," Emerging Markets Finance and Trade 40(6): 70-84.

4 See, for example, Lueth and Ruiz-Arranz (2007) and papers cited therein. Aguinas (2006) presents an extensive survey of the literature on remittances.

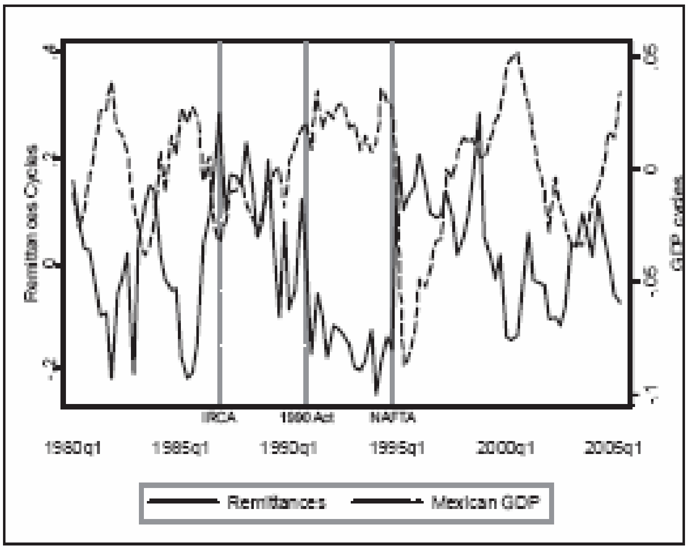
5 Whether family members are back home or together with the migrant in the host country, the number of family members who are employed, at school etc.

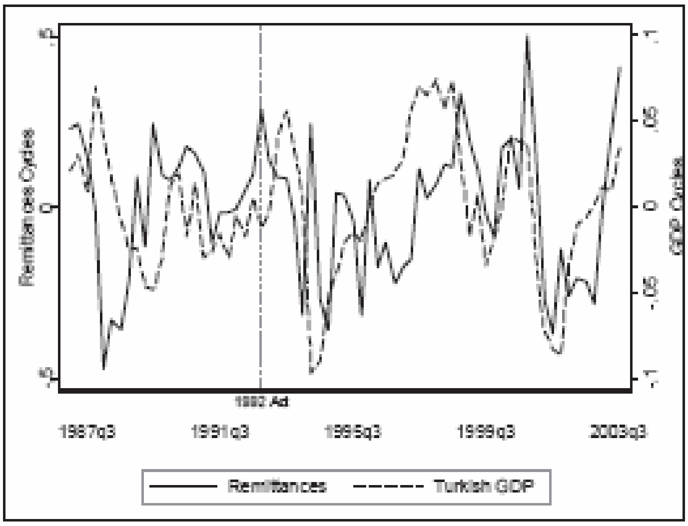
6 Business cycles are recurring episodes of recession, stagnation/crisis, growth and boom. They can more formally be defined as periodically observed fluctuations of GDP around its long-run trend.

7 Sayan, S. (2006). "Business Cycles and Workers' Remittances: How do Migrant Workers Respond to Cyclical Movements of GDP at Home?" IMF Working Paper No. WP/06/52, Washington, DC: International Monetary Fund.

economic stabilizer that helps smooth out large swings in GDP over different phases of home business cycles, proving particularly useful with their dampening effects on a recession/crisis. When they are pro-cyclical, on the other hand, remittances amplify cyclical fluctuations in GDP and hence, act as a destabilizing force. In such a case, increased remittance receipts would further boost household incomes, allowing for greater economic prosperity during a boom. However, any reductions in remittances after sharp drops in GDP would deepen the recession even further, adding to macroeconomic instability and the country risk of recipient economies at times of greater need for external funding.

Figure. Cyclical components of GDP and remittances series (Top: Mexico, Bottom: Turkey)





Secondly, from a microeconomic perspective, counter-cyclical and pro-cyclical remittances are likely to have opposite implications for poverty. In the case of the former, increased remittance receipts of households during periods of economic hardship may help curtail further increases in poverty due to recessions, whereas the latter has no such potential, and could even lead to more poverty.

Cyclical characteristics of Mexican and Turkish remittances

A recent analysis of remittances received by Mexico from the US, and Turkey from Germany by Sayan and Tekin-Koru revealed counter-cyclical and pro-cyclical patterns for these two major recipients, respectively. The panel, left above, in the figure shows cyclical components of remittances sent home by Mexican workers in the US together with business cycles in the Mexican economy from 1980 to 2005, whereas the panel, left below, shows cyclical components of the Turkish GDP and remittances Turkish workers in Germany have transferred between 1987 and 2003.

It is clear even to the naked eye that remittance receipts of Mexico from the US move counter to the Mexican business cycles: The amounts remitted appear to increase concurrently with, or shortly after, each dip in the Mexican GDP. This observation is further confirmed by the analysis of cross-correlation coefficients between cyclical components of GDP and remittances series for Mexico, as discussed in detail by Sayan and Tekin-Koru (2009a[8]). The results reported by the authors indicate that migrant Mexican workers in the US quickly respond to cyclical drops in the Mexican GDP and start increasing the amounts they remit during the same quarter so as to help family members recover lost income during a recession. This implies that the counter-cyclical nature of Mexican workers' remittances give them a potential role in curtailing recession-induced increases in poverty[9].

By contrast, it is difficult to identify the cyclical nature of Turkish remittances from Germany through visual inspection alone. Dips in the dashed line clearly mark drops in GDP, including the two major crises that hit the Turkish economy in 1994 and 2001, as well as the smaller one in 1999. Sharp drops in remittance

8 Sayan, S., and A. Tekin-Koru (2009a). "Remittances, Business Cycles and Poverty: The Recent Turkish Experience," International Migration, forthcoming.

9 How effective a role the remittances could play in preventing recession-induced increases in poverty depends upon whether family members that migrant workers left behind belong to poorer sections of the society.

"Deciding how much to remit is a complex decision involving many factors besides a simple altruistic motivation to support household income of family members at home."

receipts observed in 1994, and in the aftermath of the 1999 and 2001 recessions hint at pro-cyclical behavior, whereas the significant decline in the early 1990s point to counter-cyclicality. Cross-correlation results obtained to resolve this uncertainty suggested a strong and positive co-movement between remittances Turkey receives from Germany and the Turkish GDP, with remittances following the business cycle in the same direction but with a lag of one quarter (Sayan, 2006; Sayan and Tekin-Koru, 2009a[10]). Thus, Turkish workers in Germany respond to the changes in the level of economic activity in Turkey by adjusting the amounts transferred within the next quarter in the same direction. Remittances increase whenever the Turkish GDP goes up, further boosting the income increase. Yet, this pattern becomes a challenge to cope with at times of downturns, since the fall in remittances to follow the decline in GDP would deepen a recession.

Concluding remarks

Sayan and Tekin-Koru (2009a) offer two most plausible explanations for the pro-cyclicality of Turkish remittances. The stagnation of Turkish migration to Germany in the 1980s due to restrictions on the inflows of new migrants, and amendments introduced to the German immigration law to allow for reunification of migrant workers with their immediate family members in Germany as the most plausible explanation for the pro-cyclicality of Turkish remittances. Such family reunification let migrants extend their duration of stay in Germany, leading to gradually weakening ties with other relatives back home. This, in turn, caused the altruism motive for sending money home to lose its strength and prompted Turkish migrants to start behaving as prudent investors, seeking the right balance between risks and returns for their savings. For Mexico, on the other hand, the altruistic motive to support families left behind must remain strong, since waves of Mexican workers searching for better pay continue to cross the border to the US, even if mostly illegally.

Whatever the underlying reasons, differences in the cyclical characteristics of Mexican and Turkish remittances from the US and Germany affect their potential to contribute to poverty alleviation (Sayan and Tekin-Koru, 2009a), and to macroeconomic stability in opposite directions. As shown in a recent study by Durdu and Sayan (2009), the divergent cyclical patterns of remittance receipts of Mexico and Turkey affect the capacity of their respective economies to cope with recessions and "Sudden Stops" in an opposite and significant way. In light of the discussion so far, it seems that the governments in Mexico could use policies to attract even more remittances (varying from tax breaks on household income from abroad or measures to lower wiring fees to exchange rate policies) in dealing with domestic recessions and their possible consequences for poverty, whereas such policies would be of little help in the case of domestic recessions in Turkey. Furthermore, Mexico could use future remittance receipts as collateral while borrowing from abroad at better rates, but this would not be a smart move for Turkey.

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10 *In another study focusing on cyclical characteristics of remittance receipts of Turkey, Sayan and Tekin-Koru (2009b) present evidence that a switch occurred in the remitting behavior of Turkish workers in Germany in the early 1990's, changing the cyclical pattern of remittances from countercyclicality to procyclicality.*
Sayan, S., and A. Tekin-Koru (2009b). "Business Cycles and Remittances: A Comparison of the Cases of Turkish Workers in Germany and Mexican Workers in the US," in R. Lucas, L. Squire and T. Srinivasan (eds.), Global Exchanges and Poverty: Trade, Investment and Migration, London: Edward Elgar, forthcoming.