Migration and Remittance Trends 2009

A better-than-expected outcome so far, but significant risks ahead

By Dilip Ratha, Sanket Mohapatra, and Ani Silwal

- Newly available data show that officially recorded remittance flows to developing countries reached $338 billion in 2008, higher than our previous estimate of $328 billion. Based on monthly and quarterly data released by some central banks and in line with the World Bank’s global economic outlook we estimate that remittance flows to developing countries will fall to $317 billion in 2009. This 6.1 percent decline is smaller than our earlier expectation of a 7.3 percent fall.

- While new migration flows have fallen, existing migrants are not returning even though the job market has been weak in many destination countries. We maintain our expectation of a recovery in migration and remittance flows in 2010 and 2011, but the recovery is likely to be shallow.

- Remittance flows to South Asia grew strongly in 2008 despite the global economic crisis, but now there are risks that they may slow down in a lagged response to a weak global economy. East Asia and Sub-Saharan Africa also face similar risks. By contrast, remittance flows to Latin America and the Caribbean, and Middle East and North Africa have been weaker than expected in 2009; yet, they appear to have reached a bottom already, with the expectation of a recovery in 2010 and 2011.

- In all the regions, remittance flows are likely to face three downside risks: a jobless economic recovery, tighter immigration controls, and unpredictable exchange rate movements. Despite these risks, remittances are expected to remain more resilient than private capital flows and will become even more important as a source of external financing in many developing countries. Policy responses should involve efforts to facilitate migration and remittances, to make these flows cheaper, safer and more productive for both the sending and the receiving countries.

I. Recent Trends in 2009

Newly available data show that officially recorded remittance flows to developing countries in 2008 reached $338 billion, higher than our previous estimate of $328 billion (see table 1). The true size of flows, including unrecorded flows through formal and informal channels, is even higher. Based on high-frequency data available for the first three quarters of 2009, we estimate that remittance flows to developing countries will reach $317 billion in 2009, marking a 6.1 percent decline over 2008. This decline is smaller than our earlier projection presented in Migration and Development Brief 10 in July 2009.

We have been positively surprised in some countries, and negatively in some others. Remittance flows to South Asia have proved to be stronger than our earlier expectations. Remittance flows to Pakistan increased by 24 percent in the first eight months of 2009 on a year on year basis (figure 1).

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1 Migration and Remittances Team, Development Prospects Group, World Bank. We would like to thank K. M. Vijayalakshmi for assistance with updating remittances data for 2008, and Jacqueline Irving, Sonia Plaza and Hans Timmer for comments.
Flows to Bangladesh and Nepal increased by 16 percent and 13 percent respectively in the same period. (See box 1 for a list of top remittance recipient countries in nominal dollar terms and in terms of remittances as a share of GDP.)

Remittance flows to the East Asia and Pacific region were also stronger than expected. Remittance flows to the Philippines until August increased nearly 4 percent on a year on year basis (figure 1). The region could experience a surge in remittances in the last quarter of 2009, as migrants send money to help their families affected by typhoons Ondoy and Pepeng (which struck the Philippines in September) and the earthquake in the Pacific Islands.

Figure 1: Remittance flows to Bangladesh, Pakistan and the Philippines are still growing

![Graph showing year-on-year growth of remittances to Bangladesh, Pakistan, and the Philippines]

*Growth of 3-month moving average

Source: Central banks of the respective countries.

Remittance flows to countries in the Latin America and the Caribbean region until the third quarter of 2009 show larger declines than expected earlier. Remittance flows to Mexico declined by 13.4 percent in the first nine months of 2009 on a year on year basis (figure 2). However, the decline in flows appears to be bottoming out in most countries across the region. This reflects the fact that the crisis in the US and Spain (in the construction sector in particular), key destination countries for Latin American migrants, started sooner than the crisis in other parts of the world.

Figure 2: The steep decline in remittance flows to Latin America and Caribbean appears to be bottoming out

![Graph showing year-on-year growth of remittances to various countries in Latin America and the Caribbean]

*Growth of 3-month moving average

Source: Central banks of the respective countries.
The revised estimate for remittance flows to developing countries in 2008 is higher than earlier estimates largely because of a one-time revision to China’s data from $40.6 billion to $48.5 billion to include a larger share of flows recorded as other current transfers. Recorded flows to Sudan, Lebanon and Tajikistan in 2008 were together $2.5 billion higher than earlier estimates. After the latest data revisions for 2008, India, China and Mexico retain their position as the top recipients of migrant remittances among developing countries (box figure 1). The top 10 recipients list also includes Philippines, Poland, Nigeria, Romania, Bangladesh, Egypt, and Vietnam. In contrast, the top recipients in terms of the share of remittances in GDP include many smaller economies such as Tajikistan, Tonga, Moldova, Kyrgyz Republic, Lesotho, Samoa and Lebanon; in these countries remittances exceeded a quarter of the GDP, providing a lifeline to the poor.

Box 1: Top remittance recipients among developing countries

Remittance flows to the Europe and Central Asia region are experiencing a broadly similar decline as forecasted. Flows to Central Asian countries, where remittance flows are large relative to their gross domestic product, have declined sharply. Flows to Armenia and Tajikistan have declined by more than 30 percent in the first half of 2009. Poland and Romania in Eastern Europe have also experienced a sharp slowdown in flows.

Remittances to the Middle East and North Africa region were weaker than our earlier expectation. Remittance flows to Egypt, the largest recipient in the region, declined by 20 percent in the first half of 2009 on a year on year basis. Morocco experienced a similar rate of decline in the first eight months of 2009. Flows to Sub-Saharan Africa are doing better than forecasted, with flows to Nigeria, Kenya and Uganda showing higher growth or smaller declines than expected. Remittances to Cape Verde, Senegal and Mali have also declined in the first half of 2009, but flows to these countries account for a small share of overall remittances to Sub-Saharan Africa.  


3 The larger recipients such as Nigeria are more diversified in terms of destinations, with Nigerians emigrants in sectors such as healthcare that have been less affected during the current crisis than cyclical sectors such as construction.
II. Factors affecting migration and remittance flows in 2009

The trends in global migration and remittance flows in 2009 as discussed above appear to have been influenced by the following factors: (a) effects of the economic crisis; (b) efforts by migrants to cut consumption; (c) currency effects; and (d) a high base effect resulting from a surge in flows in 2008. These factors are discussed below.

Effect of current crisis on migration stocks and flows

Contrary to popular perception, remittance flows in a given year are not directly related to migration flows during the same year; instead, remittances are sent by almost the entire existing stock of migrants (that is, cumulated flows of migrants over the years). In understanding factors that influence remittance trends in 2009, it is helpful to examine the impact of the crisis on the stock of international migrants. The following stock-flow equation for migration is useful in this context:

\[ M_t = M_{t-1} - R_t + N_t \]

where \( M_t \) = new migrant stock; \( M_{t-1} \) = existing stock of migrants, \( R_t \) = return migration, and \( N_t \) = new migration.\(^4\) Equivalently,

\[ \Delta M_t = N_t - R_t \]

where \( \Delta M_t \) is the change in migrant stock. In other words, the change in migrant stock equals new migration net of return migration.

Contrary to expectations, there is little evidence of return migration as a result of the financial crisis in the US and Europe. On the contrary, there are widespread reports that migrants are unwilling to return to their countries of origin fearing that they may not be able to re-enter once they leave because of tighter immigration controls. Data from the Mexican Migration Project (MMP) shows that the duration of migration for Mexican migrants in the US has increased from 8 months in the early 1990s to 15 months more recently (figure 3). In part, the reluctance to return also reflects the significantly higher incomes that migrants are earning in the rich countries despite the crisis.

Financial incentives to encourage return migration are also not working as expected. Spain introduced financial incentives in November 2008 for encouraging voluntary returns.\(^5\) However, this program had received only 5,088 applications as of June 2009.\(^6\) In April 2009, Japan introduced a program that pays $3,000 to unemployed immigrants of Japanese descent from Latin America to return to their countries of origin until the economic conditions have improved in Japan, but there is little evidence that it has led to large returns.\(^7\) Czech Republic also introduced a program in February 2009 for unemployed migrants from non-European Union countries to return home but had received applications from only 1,345 immigrants by April.\(^8\) In part because of the weak response to financial incentives, Spain

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\(^4\) It would probably be more accurate to describe the equation as \( M_t = (1-\delta)M_{t-1} - R_t + N_t \) with \( \delta \) the death rate plus assimilation rate of migrants in the host countries.

\(^5\) Unemployed migrants from 20 countries that have signed a bilateral social security agreement with Spain are eligible for the program. Those who sign up will not be allowed to return to Spain for work for the next three years (http://www.planderetornovoluntario.es/index_uno.html).


\(^7\) “Japan Pays Foreign Workers to Go Home.” The New York Times. April 23, 2009. Brazil has the population of more than 1.5 million people of Japanese descent, of which 300,000 migrated to Japan in the 1980s in response to a labor shortage in Japan. ("Brazil-Japan: One Hundred Years of Migration." ISI Emerging Markets AfricaWire. August 18, 2009.)

and other European countries are now considering stronger immigration measures. Anecdotally, employers in the GCC countries are also offering unpaid leave to migrant workers to encourage them to return home until economic recovery; but there appear to be few takers.

Figure 3: Duration of Mexican migration has increased–return rate has declined–as controls have been tightened at the US-Mexico border

![Graph showing increase in migration duration and decrease in return rate]

Source: US Department of Homeland Security; Mexican Migration Project

**New migration** flows from many countries appear to have been impacted by the financial crisis and weak job markets in the destination countries, although flows are still positive. There has been a large fall in new deployments in many sending-countries such as Bangladesh, where migration has fallen by nearly half in the first nine months of 2009 on a year on year basis. New migration from Poland to the UK has also fallen. The number of employed workers from Poland and other “accession” countries in the UK has plateaued since the start of the crisis (figure 4).

Several European countries are considering measures that may reduce the inflows of new migrants. Italy recently passed a bill that criminalizes illegal immigration. France and Italy are urging other European Union leaders to tighten border patrolling, particularly along the Mediterranean Sea. The European Union’s Blue Card and move towards a points-based system is likely to favor skilled migrants at the cost of the unskilled, but some of the provisions such as high salary requirements for foreign workers could make entry difficult even for the highly educated. Together with the effect of the economic crisis, these restrictive immigration policies could adversely affect remittance flows to developing countries such as Poland, Romania and Morocco that have a large number of migrants in Europe.

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9 The Spanish parliament is considering a bill that illegal immigrants can be detained for a maximum of 60 days (without any option for further extension) before being deported. See “El Congreso aprueba la reforma que endurece la ley de Extranjería” El País, October 29, 2009.

10 The number of migrants going overseas for work shrank by 48 percent in the first nine months of 2009, according to the Bangladesh Bureau of Manpower Employment and Training ("Some 358,171 Bangladeshis Find Overseas Jobs This Year Amid Recession" October 1, 2009. [http://www.bernama.com/bernama/v5/newsindex.php?id=443701#)

11 The UK is now a major destination for Polish emigrants, with half a million recorded Polish immigrants in the UK (UK Office of National Statistics www.statistics.gov.uk)


The number of applications for H-1 B visas in the US has fallen sharply in 2009. As of September, only 46,700 petitions had been filed against a quota of 65,000 for the 2010 fiscal year. In 2007 and 2008, the quotas were filled up within days of the opening of application. The lack of applications is in part a result of slack demand for workers, but it is also in part due to the fact that the US stimulus package makes it difficult for firms receiving government support to hire foreign workers.

Figure 4: Migrant employment in UK increased between 2003 and 2007, but has since plateaued

Both return and new migration flows depend heavily on the destinations of migrants. Developing countries with migrants in the Gulf Cooperation Council (GCC) countries, such as India, Bangladesh, Nepal, Pakistan and the Philippines, have experienced smaller decline in remittance flows. Dubai which has been the worst affected by the crisis is only one of the seven emirates of the UAE, and the only one that does not have oil. The substantial financial resources and long-term infrastructure development plans of the GCC countries implies that they will continue to demand migrant workers.

Some developing countries in the South, such as Russia, Malaysia, South Africa and India are also important destinations for migrants. Russia accounts for the bulk of remittances to Tajikistan, Kyrgyz Republic, Moldova and Armenia, where remittances constitute between 10 to 50 percent of gross domestic product. India experiences large informal cross-border migration from Bangladesh and Nepal. Malaysia is a major migrant-destination in the region, receiving large numbers of migrants from Indonesia, Bangladesh, and Nepal. Resource-rich developing countries such as Nigeria, Sudan, Libya and Iran are also becoming attractive destinations for migrants. There are anecdotal reports of several million migrants from Afghanistan in Iran. It is hard to predict how outward remittances from developing countries will be affected by the crisis, but some interesting cases involving currency effects are discussed below.

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15 The quota has not been filled six months after the U.S. government began accepting applications in April (“Slump sinks visa program”, The Wall Street Journal, October 29, 2009). Indian outsourcing companies in the information technology sector have usually been the largest recipients of these quotas.

16 There has been speculation about whether oil prices affect remittance outflows from the GCC. Historically, oil prices have been uncorrelated with remittance outflows from Saudi Arabia. The cost of oil production is low and even if oil prices fall, the funds for infrastructure development and demand for migrant workers are not likely to be affected. Remittance flows to countries that send migrants to the GCC may slow but are not likely to decline.

17 Ratha and Shaw (2007) estimate that almost half of migrants from developing countries are in other developing countries. (http://siteresources.worldbank.org/INTPROSPECTS/Resources/334934-1110315015165/SouthSouthMigrationandRemittances.pdf).
**Efforts by migrants to cut consumption**

Remittances are a small share of migrants’ incomes, and they typically continue to send remittances even when hit by income shocks. Interviews with migrants in Dubai suggest that in response to wage cuts by employers, many migrant workers have sent their families back home and have cut back on daily expenditures. Migrants are also sharing accommodation in order to be able to send remittances. Many migrants who have lost jobs are not leaving but are taking up lower paying jobs with other employers, and often staying on illegally.  

**Currency effects**

An important factor affecting the US dollar valuation of remittances is changes in the exchange rates between the relevant local currency and the US dollar. Exchange rate changes also appear to affect the consumption/investment motivation for remittances. Most of remittances to countries in Central Asian countries come from Russia. In 2009 remittance flows to several Central Asian countries appear to have declined precipitously in US dollar terms, but the fall is smaller in ruble terms. For example, in US dollar terms, remittance flows to Kyrgyz Republic, Armenia, and Tajikistan declined by 15 percent, 33 percent and 34 percent respectively in the first half of 2009 compared to the same period last year (figure 5). However, the ruble lost 25 percent of its value against the US dollar in the first half of 2009 compared to its average value in the same period the previous year. If measured in ruble terms, remittances to Kyrgyz Republic actually increased 17 percent in the first half of 2009 on a year-on-year basis. In Armenia, the year-on-year fall in ruble terms was only 8 percent, and in Tajikistan it was 10 percent.

**Figure 5: Remittances to Central Asia have declined less in ruble terms than in US dollar terms**

![Graph showing remittances to Central Asia](image)

Source: Central banks of the respective countries.

Similarly, a significant part of the decline in remittance flows to Poland can be explained by the weakening of the British pound against the US dollar. The British pound depreciated by over 25 percent between the third quarter of 2008 and first quarter of 2009 (figure 6), reducing outflows in US dollar terms. These exchange rate effects are also important for Asian and African countries that receive remittances from the UK.

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18 Unofficial estimates suggest that some 5-10 percent of migrants in the Gulf are undocumented.

19 Russia reportedly accounts for more than four-fifth of remittance inflows in Kyrgyz Republic and Armenia, and it was the largest sources of remittances for Tajikistan (based on data collected from a global survey of central banks). Driven by increasing emigration (primarily to Russia), remittance flows to Kyrgyz Republic and Tajikistan more than doubled in US dollar terms between 2006 and 2008, while personal transfers through banks in Armenia increased by some 70 percent.
Aside from the valuation effects discussed above, the changes in currency exchange rates have revealed some interesting changes in remittance levels and consumption/investment motivation. As highlighted in Migration and Development Brief 10, the depreciation of the Indian rupee and the Philippine peso produced a “sale effect” on housing, bank deposits, stocks and other assets back home. For example, as the Indian rupee depreciated by more than 25 percent against the U.S. dollar in the last three quarters of 2008, there was a surge in remittance flows to India (figure 7).

Figure 6: Weakness of the British pound may be related to a larger decline in remittances in US dollar terms

**Source:** IMF Balance of Payments and Development Prospects Group, World Bank.

Figure 7. Exchange rate depreciation and widening interest rate differentials encouraged remittances to India for investment purposes

**Source:** Development Prospects Group, World Bank.

**High base effect**

A minor reason behind the fall in remittances in 2009 is simply that in 2008 there was an “abnormal” surge in remittance flows to many countries including Bangladesh, Ethiopia, India, Nepal and Tajikistan, because of some of the reasons discussed above. Such high levels of remittances are difficult to sustain over the medium-term.

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20 In March 2009, we revised the estimate of remittance flows to India in 2008 from $30 billion to $45 billion; a few months later, the official number for 2008 was reported as $52 billion.
III. Outlook for 2010-11

World Bank estimates show that economic growth is beginning to recover after the global slump that began in 2008. Although recovery will gather pace, according to the forecasts, growth will remain weak in 2010 and 2011 and is unlikely to reach the brisk pace seen before the crisis.\(^21\) In line with this outlook, and based on our methodology of forecasting remittances using a bilateral migration matrix and the World Bank’s forecasts of nominal GDP growth, we have revised our forecasts for remittances (see methodology in annex 1). Remittance flows to developing countries are expected to remain almost flat in 2010, with a modest increase of 1.4 percent, and grow by 3.9 percent in 2011. With this sluggish pace of recovery, remittance flows are unlikely to reach the 2008 level even by 2011.

The decline in remittance flows to Latin America and the Caribbean appears to be bottoming out. However, partly because of the large declines in 2009, flows to Europe and Central Asia and Latin America and the Caribbean are unlikely to recover to pre-crisis levels of 2008 even in 2011. Flows to other developing regions are expected to remain weak in 2010-11. Even though the outcome for remittances in 2009 turned out better than expected, the recovery in the coming years would be shallower.

One source of risk to this outlook is that the crisis could last longer than expected. The emerging recovery in construction and other sectors in the US may not be sustained after the effects of the stimulus package wears out. As discussed earlier, the US grew at 3.5 percent in the third quarter of 2009 after several quarters of decline.\(^22\) The recovery in construction employment in the US (see figure 8) has been driven in part by a credit to new home-buyers, which has stabilized migrant employment in this sector.\(^23\) If this subsidy proves unsustainable, it could have a dampening impact on the housing market. The recovery in migrant employment in construction during the summer may also be seasonal. A slowdown in construction activities in the US is tends to impact remittance flows to Mexico with a lag of 4-6 months (figure 9).

Other sending countries may also experience a lagged slowdown in remittance flows in response to slowing activities in other destination countries. A deceleration in construction activities in the GCC may impact migrant-sending countries in South Asia and East Asia.\(^24\) While a recovery in oil prices and fiscal stimulus implemented by GCC governments is likely to help maintain employment levels for existing migrants, new migration flows are unlikely to grow over the next two years. Remittances from the GCC may therefore remain stable, but they are unlikely to grow rapidly for a year or two.

A second source of risk to the outlook presented here is that weak job markets in the destination countries may lead to further tightening of immigration controls. Many economists are predicting a “jobless” global recovery. The labor market in the US is expected to remain weak in the medium term and unemployment rates are expected to remain high.\(^25\) If employment recovers only with a substantial lag to the recovery in economic output, then it is likely to have an impact on the employment levels and


\(^{22}\) The US Bureau of Economic Analysis estimates that the increase in sales of motor vehicles contributed to almost half the increase in the third quarter GDP for the US. The so-called “Cash for Clunkers” program, officially known as the Car Allowance Rebate System (CARS) ran during the third quarter of 2009, and subsidized the purchase of new cars by $3,500-$4,500 if individuals traded-in their eligible old cars with newer, more efficient models. (www.bea.gov)

\(^{23}\) The “First-Time Home Buyer Tax Credit” program provided a tax credit of up to $8,000 to eligible first-time home buyers during January to November, 2009. The US Senate is currently debating a plan to extend the credit.

\(^{24}\) A quarter of construction projects in the GCC are either on hold or cancelled. Dubai in the United Arab Emirates has been hit the most, with nearly 40 percent of projects on hold. (“GCC Regional Overview” Garbis Iradian, Institute of International Finance. September 28, 2009).

incomes of migrants, and in turn their ability to send remittances. Persistently high rates of unemployment may also increase pressure on countries to tighten immigration controls for migrants, especially for low-skilled migrants (as discussed above).

**Figure 8: US migrant employment in construction and manufacturing has stabilized**

![Graph showing migrant employment in construction and manufacturing](image_url)

*Source: US Census Bureau*

**Figure 9: US construction sector activity affects remittances to Mexico with a lag**

![Graph showing remittances to Mexico](image_url)

*Source: US Census Bureau and Banxico*

A third source of risk is that currency movements are highly unpredictable. If the currencies of receiving countries start appreciating with respect to the US dollar, then the “sale effect” — remittances for investment in cheaper assets — may reverse. This specially applies to India which experienced a surge in such flows during 2008. The abnormal surge in remittances to Bangladesh and Tajikistan during 2007-08 may also prove unsustainable because of the same reasons.

**IV. Policy Responses**

Some countries are beginning to look at facilitating remittances in the face of external financing constraints, including introducing incentives to send more remittances through formal channels. For example, Pakistan has introduced a scheme which subsidizes remittance service providers for a certain
part of their marketing expenses, depending on the volumes transferred. Countries are also trying to facilitate cheaper and faster remittances. One of the potentially cheapest and quickest options is money transfer using mobile phone networks. However, significant regulatory challenges related to anti-money laundering and countering the financing of terrorism (AML-CFT) remain for cross-border transfers using mobile phone networks.

Many migrant-sending countries are worried about large return migration prompted by weak job markets in destination countries. Return migration in the current crisis appears to be negligible so far, but if it happens, the workers coming back home will return with skills, entrepreneurial energy and capital. During the Persian Gulf War in 1991, for example, a large number of Indian migrants came back home from the Gulf, driving up the amount of remittances to India. Migrants not only bring back savings but also business skills. Jordan’s economy performed better than many observers had expected between 1991 and 1993 because of the return of relatively skilled workers from the Gulf (figure 10). National governments should provide assistance to municipalities in dealing with return migrants. The challenge for governments is to harness the opportunities created by return migrants, for example by providing them help in setting up small businesses and reintegrating into their communities, instead of treating them as an object of envy or fear of job competition.

Figure 10: Jordan’s economy surged with the return of migrants after the first Gulf War

Source: World Development Indicators 2009

To compensate for any reduction in new migration flows, many migrant-sending countries are trying to establish guest worker programs with destination countries. Industry is negotiating mobility partnerships with some European countries. Bangladesh and Nepal are trying to negotiate continuation of immigration quotas with Malaysia and Korea respectively. The Philippines is actively searching for new migrant-destinations.

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30 Philippines has signed memorandum of understanding (MoUs) on labor migration with Korea, Canada, Bahrain, and UAE. (http://www.poea.gov.ph)
As discussed above, many migrant-receiving countries are worried about protecting jobs for their native workers and are tightening immigration controls. There are risks that more immigration controls to protect native workers might imply a trade-off between protecting native workers from job competition and protecting employers. In the short term, allowing employers flexibility in hiring and firing decisions may help them cut costs and survive the crisis. In the medium-term, that might result in a more sustainable recovery.

The financial crisis has highlighted the importance of migration and remittances. At over $300 billion a year, remittance flows provide an enormous source of development financing. In the near-term, the resilience of these flows has made them even more important as a source of external financing, offering a ray of hope in these difficult times. The development community can further leverage these flows for development by making them cheaper, safer and more productive for both the sending and the receiving countries. An “International Remittances Agenda” as summarized in figure 11 would involve: (1) monitoring, analysis and projections; (2) improving retail payment systems through use of better technologies and appropriate regulatory changes; (3) linking remittances to financial access at the household level; and (4) leveraging remittances for capital market access at the institutional or macro levels.

Figure 11: International Remittances Agenda
Annex 1. Methodology for forecasting remittances worldwide

Remittance flows are broadly affected by three factors: the migrant stocks, incomes of migrants in the destination country and incomes in the source country (proxied by average per capita income). We assume that migrant stocks will remain unchanged during 2008-10. This is not an unreasonable assumption as argued in the main text. We prepare the forecasts for remittance flows for 2009 and 2010 by examining the effects of income changes in destination countries worldwide. For this purpose, we use a bilateral remittance matrix estimated by Ratha and Shaw (2006) to estimate remittance intensities—the share of remittance outflows in gross domestic product (GDP)—for the remittance source countries.

\[ r_{ij} = \frac{R_{ij}}{Y_j} \]

where “i” is the remittance receiving country and “j” is the remittance source country.

We then estimate remittance flows for 2008 until 2010 using these remittance intensities and the latest available projections of gross domestic product for all remittance source countries from the World Bank’s global macroeconomic forecasts.

\[ R_i = \sum_j r_{ij} Y_j \]

In order to avoid attributing flows in dollar terms that are simply due to movements in the Euro-dollar exchange rate, we assume a constant exchange rate at the current level.

Other factors such as remittance costs and migrants’ vintage also play a role (see World Bank 2005 and Lueth and Ruiz-Arranz 2008). The data on remittance costs are not easy to model, although we know that remittance costs are falling and causing remittance flows to increase. The migrants’ vintage, or the number of years lived in the destination country, is also a plausible determinant of remittance flows to the origin countries. New migrants may send more remittances as a percentage of their income, since they have better ties back home. However, there is anecdotal evidence that new migrants often have financial obligations (such as repaying loans incurred while migrating) and therefore unlikely to send remittances immediately after arrival in the host country. We try to capture the vintage effect examining a low case scenario where recent migrant inflows of the last one or two years are forced to go back as the economic crisis deepens in the major destination countries, an unlikely but high-impact scenario (see discussion in the main text).

References:


Source: Migration and Development Brief 8 “Growth expected to moderate significantly, but flows to remain resilient”, November 11, 2008. By Ratha, Mohapatra and Xu.
Table 1: Outlook for remittance flows to developing countries, 2009-11

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</tr>
<tr>
<td>Europe and Central Asia</td>
<td>24.1%</td>
<td>36.0%</td>
<td>13.8%</td>
<td>-14.7%</td>
<td>2.7%</td>
<td>5.0%</td>
</tr>
<tr>
<td>Latin America and Caribbean</td>
<td>18.1%</td>
<td>6.8%</td>
<td>2.3%</td>
<td>-9.6%</td>
<td>0.5%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Middle-East and North Africa</td>
<td>4.6%</td>
<td>20.1%</td>
<td>10.6%</td>
<td>-7.2%</td>
<td>1.5%</td>
<td>3.3%</td>
</tr>
<tr>
<td>South Asia</td>
<td>25.3%</td>
<td>27.1%</td>
<td>35.6%</td>
<td>-1.8%</td>
<td>1.7%</td>
<td>4.1%</td>
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<tr>
<td>Sub-Saharan Africa</td>
<td>34.7%</td>
<td>47.6%</td>
<td>13.4%</td>
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<td>1.8%</td>
<td>3.9%</td>
</tr>
<tr>
<td>Low-income countries</td>
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<td>23.4%</td>
<td>28.3%</td>
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<td>2.6%</td>
<td>4.6%</td>
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<tr>
<td>Middle-income countries</td>
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<td>22.9%</td>
<td>15.6%</td>
<td>-6.8%</td>
<td>1.2%</td>
<td>3.8%</td>
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<tr>
<td>World</td>
<td>15.3%</td>
<td>21.3%</td>
<td>15.3%</td>
<td>-5.3%</td>
<td>1.2%</td>
<td>3.7%</td>
</tr>
</tbody>
</table>

e = estimate; f=forecast

Source: Authors’ calculation based on data from IMF Balance of Payments Statistics Yearbook 2008 and data releases from central banks, national statistical agencies, and World Bank country desks. See Annex 1 for the methodology for the forecasts. Remittances are defined as the sum of workers’ remittances, compensation of employees, and migrant transfers – see www.worldbank.org/prospects/migrationandremittances for data definitions and the entire dataset.

Migration and Development Briefs are intended to be informal briefing notes on migration, remittances, and development. Contributions are greatly welcome. The views expressed are those of the authors and may not be attributed to the World Bank Group. The latest data on remittances and other useful resources are available at http://www.worldbank.org/prospects/migrationandremittances. Our blog on migration titled “People Move” can be accessed at http://peoplemove.worldbank.org. Feedback, and requests to be added to or dropped from the distribution list, may be sent to Dilip Ratha at dratha@worldbank.org.