

# The Impact of Remittances on Economic Growth



## MasterCard Worldwide Insights

A research study by  
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## Executive Summary

The practice of transferring—or remitting—money by foreign workers to their home countries has a long, significant history and is not just a product of the modern global economy. In the mid-19th century, migrant workers from southern China began pouring out across Southeast Asia to provide labor and know-how to colonial developments of mines, plantations and construction. Much of the growth of Southeast Asia has been traced to these so-called “sojourners” who left impoverished agricultural villages in Guangdong and Fujian provinces to be wage earners, savers and remitters back to their home villages. The ability to make these remittances allowed the remitter’s families to buy land, educate their children and improve their standard of living and that of their village.

These same benefits to receiving families and regions are key driving forces for labor emigration and remitting today. Modern remittances remain hugely important to the countries that receive them, are growing rapidly, and have the potential to promote the economic development of the poorest nations in the world. They represent crucial income to recipients and their locales and are an important source of additional consumption and investment income to recipients, even in large economies. In fact, remittances have become even more important than foreign direct investment (FDI) as a source of capital inflow to needy nations, exceeding FDI for the first time in 2006 when remittances topped US\$300 billion and FDI only totaled US\$167 billion. As for Official Development Assistance (ODA), in

2006 remittances were nearly three times as large as the US\$104 billion in ODA received.

The countries that are the destinations for most remittances tend to be characterized by income inequality and volatility and usually have undeveloped financial markets. Remittances step in to serve as substitute financial markets allowing families to finance investments, which spur economic development. In poor financial markets, remittances have their biggest impact on financial growth and are a stable source of income—even in times of crisis.

However, the high cost of the current remitting process diverts capital from poor families and nations. Improving the remitting process through the convergence of new technologies and processes integrated with established financial and communications systems, represents a significant opportunity to improve the wellbeing of participants at both ends.

Such a convergence is happening today as various entities around the world trial new remittance systems grounded in the financial and payment systems but enabled by the mobile phone. By identifying the categories of people who are likely to find a mobile phone/ payments-card system most valuable, we can start to understand the economic and social factors that are likely to contribute to the potential future growth of these remittance services.

The success of a mobile phone/payments card remittance system hinges on the extent to which mobile phone coverage makes access for remitters and remitees easier and less costly than via fixed locations and ATMs. The benefits of such a system are likely to be particularly large in poor countries with limited financial infrastructure and in remoter parts of developed



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nations. However, the possibility of using a mobile phone-based system is also likely to appeal to people who migrate from place to place as part of their work.

There is also a potentially large market for remittance services within large countries where there has been substantial migration from the countryside to cities. In China and India for example there have been ongoing migrations resulting in millions of new urban dwellers with strong ties to their families and villages. The following paper considers the possible success factors, including the levels and potential growth rates in access to mobile telephone technology, and the characteristics of remitters to which such a remittance system is most likely to appeal.

## Remittances Defined

The World Bank's working definition of remittances is "workers' remittances + compensation of employees + migrant transfers" all of which are obtained from the balance of payments accounts of receivers and remitters.<sup>1</sup>

The International Monetary Fund prefers to exclude "transfers of migrants" which it claims are "in most cases unrelated to remittances and hence misleading."<sup>2</sup> By definition, transfers of migrants...

*"refer to capital transfers of financial assets made by migrants as they move from one country to another and stay for more than one year."*<sup>3</sup>

The opinion of the IMF is shared by the Luxembourg Group in its June 2006 meeting and report, *Remittance Statistics: First Meeting of the Luxembourg Group*.

A team of statisticians and economists from the UN Technical Subgroup on the Movement of Natural Persons, and the IMF Committee on Balance of Payments Statistics agreed that the balance of payments statistics are the appropriate framework for collecting, reporting and improving official statistics on remittances.<sup>4</sup> Recently, a new aggregate, "total remittances" has been introduced and will be available in future years as a good measure of the market at which modern remittance programs are aimed. However, for the purposes of this report we will rely on the old World Bank definition when comparing the size of remittances over time and between countries.

1 - See the website of the World Bank: <http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTDECPROSPECTS/GEPEXT/EXTGEP2006/0,,contentMDK:20792338~menuPK:2138997~pagePK:64167689~piPK:64167673~theSitePK:1026804,00.html>

2 - See <http://www.imf.org/external/pubs/ft/bop/news/pdf/1205.pdf>

3 - Quoted from *Migration Information Source* at <http://www.migrationinformation.org/USfocus/display.cfm?ID=137>

4 - *Ibid.*

It is generally argued that there is a downward bias in remittance receipts because the official statistics miss informal inflows, including transfers in kind.<sup>5</sup> The poorest countries for which remittances are most critical for social wellbeing are regarded as having the largest errors in reported amounts. This view is generally supported by bank reporting that is cross checked against balance of payments data, and with household surveys and counterpart comparisons.<sup>6</sup> On the other hand, by having to use data that includes financial asset transfers and net compensation of employees there could be an upward bias in the available data. By arguing that for the poorest countries the financial asset transfers are probably small, it may be reasonable to assume an overall downward bias, especially if the net compensation of employees, which in the future is to be a memorandum item, can be considered to be small.

The errors and biases referred to above should be borne in mind when considering the tables and figures that follow. However, as we shall see, remittances are hugely important to countries that receive them, are growing rapidly, have the potential to promote the economic development of the poorest nations on the planet, and that improving the remitting process represents a significant opportunity to improve the well being of both the remitter and remitee and the receiving country and region.

## The Size, Growth and Importance of Remittances

Table 1, which is graphically illustrated in Figure 1, shows the size of remittances received by the largest recipients as estimated for 2005 in the World Bank's report *Global Economic Prospects 2006: Economic Implications of Remittances and Migration*. The table shows a worldwide estimate of a little over \$232 billion, with almost two-thirds of this going to developing countries. Approximately one-quarter of the remittances go to the top three countries: India, China and Mexico. However, these are relatively large economies, thereby diminishing potential impact.<sup>7</sup> Nevertheless, while the importance of remittances to a country depends on how large the remittances are relative to the receiving economy, it is also true that remittances represent important marginal income to recipients and their locales, and an important source of additional consumption and investment income to recipients, even in large economies. It is clear from Table 2 and the bottom part of Figure 1 that considering remittances relative to GDP results in a very different list than one based on sheer size of remittances. In these comparisons it should be remembered that the estimates are likely biased downwards, particularly for the poorer countries, so that remittances likely represent larger proportions of GDP than shown.

5 - While transfers in kind do not require a financial remittance service, they may nevertheless be connected to the demand for financial remittances. For example, as the costs of financial remittances comes down we can expect some who currently remit in kind – sending packages of clothes, food etc. – to switch to sending money.

6 - The overall downward bias could be as much as 50 percent according to *Finance and Development: A Quarterly Magazine of the IMF*, December 2005, volume 42, Number 4.

7 - Our study was completed in July 2007. In late October 2007 the United Nations and IFAD released new and conservative estimates where migrants working in developed nations remitted over \$300 billion in 2006 – well beyond the \$104 billion foreign aid to developing countries by donor nations in 2006.

According to *Sending money home: Worldwide remittances to developing countries*, (Geneva: International Fund for Agricultural Development (IFAD), October, 2007) Asia is the largest recipient of remittances at over \$114 billion, followed by Latin America and the Caribbean at \$68 billion, Eastern Europe at \$51 billion, Africa at \$39 billion and the Near East at \$29 billion.

These sums are massive, not only exceeding foreign aid but also exceeding foreign direct investment (FDI) in developing countries, which last year totaled some \$167 billion. The 150 million migrants remitting these funds had widespread positive impact according to IFAD. Specifically, over a third of remittances flow to families in rural areas, used largely for basics such as food, clothing and medicines. Some 10-20 per cent is saved, too often in homes and not in financial institutions, a significant potential loss for development.

The importance of remittances to developing countries relative to other sources of capital inflows is graphically illustrated in Figure 2. We see that remittances have become even more important than foreign direct investment (FDI) as a source of capital inflows for needy nations, and greatly exceeded them for the first time in 2006 where remittances topped US\$300 billion and FDI totaled US\$167 billion. Additionally, remittances are now nearly three times the size of Official Development Assistance (ODA), which in 2006 only equaled US\$107 billion. What is also striking from the time-series behavior of remittances is that they are stable. Figure 3 shows a further beneficial aspect of remittances. For the three countries shown, remittances tend to increase during and following crises, which is when there is the greatest need. This has been shown to be a general characteristic of remittances and is demonstrated in a recent working paper by Serdar Sayan (2006).<sup>8</sup>

The potential market for remittance services is likely to be most easily reached through identifying remitters in donor countries. Not surprisingly, the largest dollar value of remittances comes from the richest countries, with the United States being by far the largest source. This is shown in the top part of Figure 4.

However, if we compare remittances to the size of the remitting countries' GDPs, it is upper middle-income countries that contribute the largest amounts. This is shown in the lower part of Figure 4.

Outward migration, that is, emigration, has two offsetting effects on the poverty levels of remaining households. Specifically, the remittances that are received by households remaining in the country are offset by the income that would have been generated by the households had migration not occurred. What is the net effect of emigration in terms of movement of remaining households along an income scale: does emigration move them into higher or lower income deciles? It turns out that those in the middle household-income deciles are more likely to move up to a higher income decile as a result of remittances than those in the lowest—and less surprisingly than the highest—income deciles. This is illustrated for Sri Lanka in Figure 5. Additionally, there is evidence showing that financial development, which may be influenced by reaching the unbanked and under banked with a mobile-phone based remittance system, reduces income inequality by disproportionately boosting the incomes of the poor.<sup>9</sup>



**Remittances are now more than twice the size of official development assistance.**

8 - Serdar Sayan, "Business Cycles and Workers' Remittances: How Do Migrant Workers Respond to Cyclical Movements of GDP at Home?" IMF Working Paper WP/06/52, February 2006.

9 - Thorsten Beck, Asli Demirgüç-Kunt and Ross Levine, "Finance, Inequality and Poverty: Cross-Country Evidence", World Bank, Working Paper dated October 21, 2004.

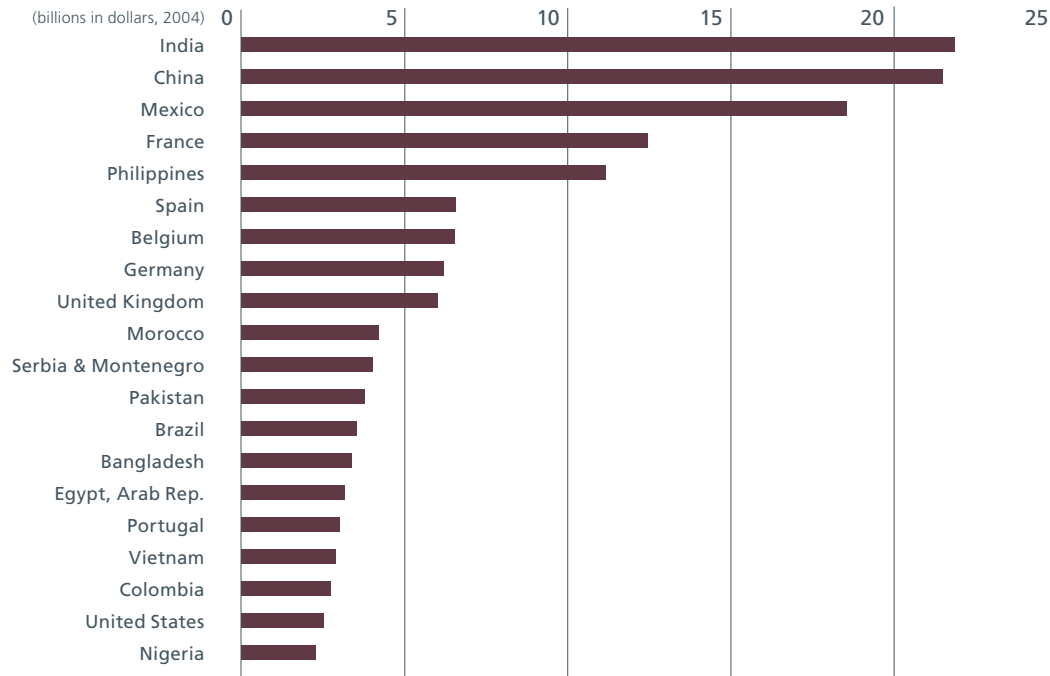
**Table 1: Worker's Remittances, Compensation of Employees, and Migrant Transfers, 32 Largest Inflows by Recipient Country, 2005 (Estimate)**

Country	Amount (U.S. \$Mil. 2005)	Average Annual % Change 1995-2005
India	21,727	13.3
China	21,283	35.1
Mexico	18,955	15.8
Philippines	13,379	9.6
France	12,650	10.5
Spain	6,859	7.8
Belgium	6,840	3.3
Germany	6,497	3.7
United Kingdom	6,350	9.9
Morocco	4,724	9.1
Serbia/Montenegro	4,650	---
Pakistan	4,142	9.2
Bangladesh	3,824	12.3
Colombia	3,668	16.2
Brazil	3,575	0.8
Egypt, Arab Rep.	3,341	0.4
Portugal	3,212	-2.1
Nigeria	3,200	14.8
Vietnam	3,200	---
United States	3,038	3.4
Guatemala	2,832	23.0
Australia	2,744	5.2
Algeria	2,720	9.3
Poland	2,709	14.1
Lebanon	2,700	8.22
Russian Federation	2,668	0.64
El Salvador	2,564	9.2
Dominican Republic	2,493	11.5
Austria	2,475	9.4
Jordan	2,287	4.7
Italy	2,172	0.8
Thailand	2,029	1.8
<b>Low-income countries</b>	<b>45,064</b>	
<b>Developing countries</b>	<b>166,898</b>	
<b>World</b>	<b>232,342</b>	<b>8.6</b>

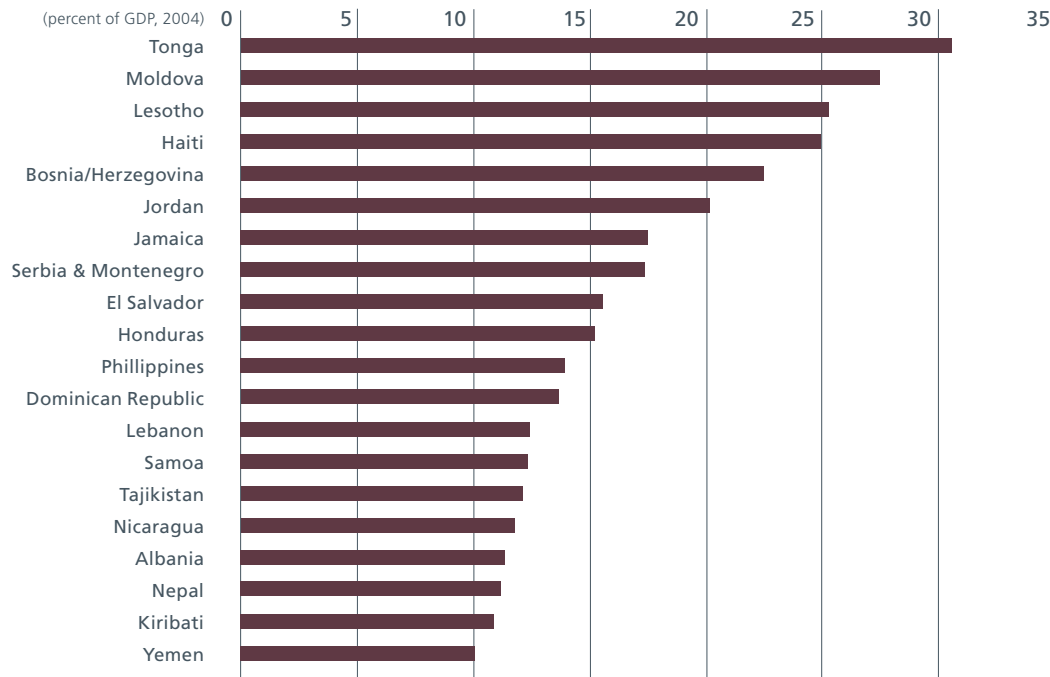
Source: *Global Economic Prospects 2006: Economic Implications of Remittances and Migration*, World Bank.

**Figure 1: Largest Receivers by Amount and Economic Importance**

Larger countries tend to receive more remittances in dollar terms...



... but, in terms of GDP, smaller countries receive the most.



Source: *Finance and Development: A Quarterly Magazine of the IMF*, December 2005, Volume 42, Number 4.

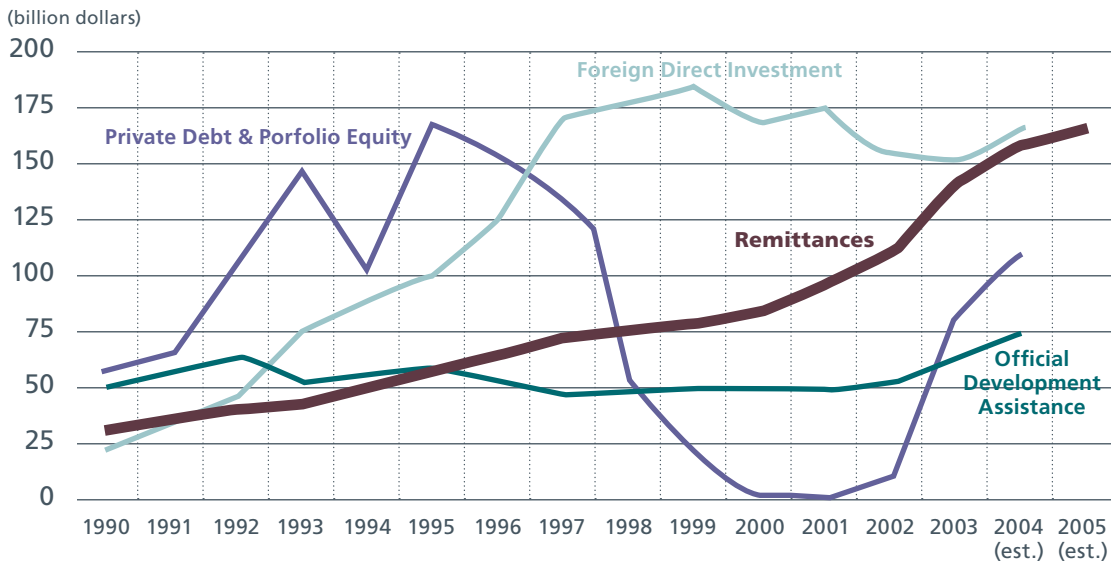
**Table 2: Workers' Remittances, Compensation of Employees, and Migrant Transfers, 40 Largest Inflows by Percent 2004 GDP**

Country	Percent 2004 GDP	Country	Percent 2004 GDP
Tonga	31.1%	Guatemala	9.4%
Moldova	27.1%	Kyrgyz Republic	8.6%
Lesotho	25.8%	Morocco	8.4%
Haiti	24.8%	Guinea-Bissau	8.2%
Bosnia/Herzegovina	22.5%	Guyana	8.1%
Jordan	20.4%	Sri Lanka	7.8%
Jamaica	17.4%	Togo	7.2%
Serbia/Montenegro	17.2%	Sudan	7.2%
El Salvador	16.2%	Vietnam	7.1%
Honduras	15.5%	Senegal	6.7%
Philippines	13.5%	Georgia	6.0%
Dominican Republic	13.2%	Bangladesh	5.9%
Lebanon	12.4%	Ecuador	5.3%
Samoa	12.4%	Grenada	5.3%
Tajikistan	12.1%	Tunisia	5.1%
Nicaragua	11.9%	Egypt, Arab Rep.	4.4%
Albania	11.7%	Uganda	4.3%
Nepal	11.7%	Pakistan	4.1%
Kiribati	11.3%	<b>Low-income Countries</b>	<b>3.7%</b>
Yemen, Rep.	10.0%	<b>Developing Countries</b>	<b>2.0%</b>
Cape Verde	9.7%		
Armenia	9.5%	<b>World</b>	<b>0.6%</b>

Source: *Global Economic Prospects 2006: Economic Implications of Remittances and Migration*, World Bank.

**Figure 2: Remittances Relative to Other Capital Inflows of Developing Countries**

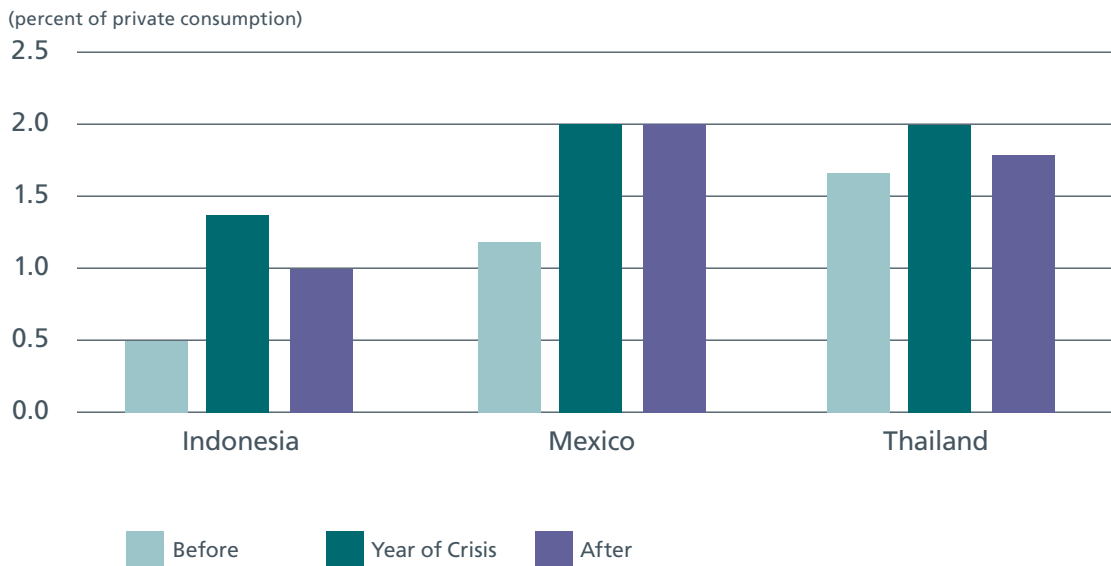
Remittances are the second largest source of finance for developing countries.



Source: *Finance and Development: A Quarterly Magazine of the IMF*, December 2005, Volume 42, Number 4.

**Figure 3: The Counter-Cyclical Nature of Remittances**

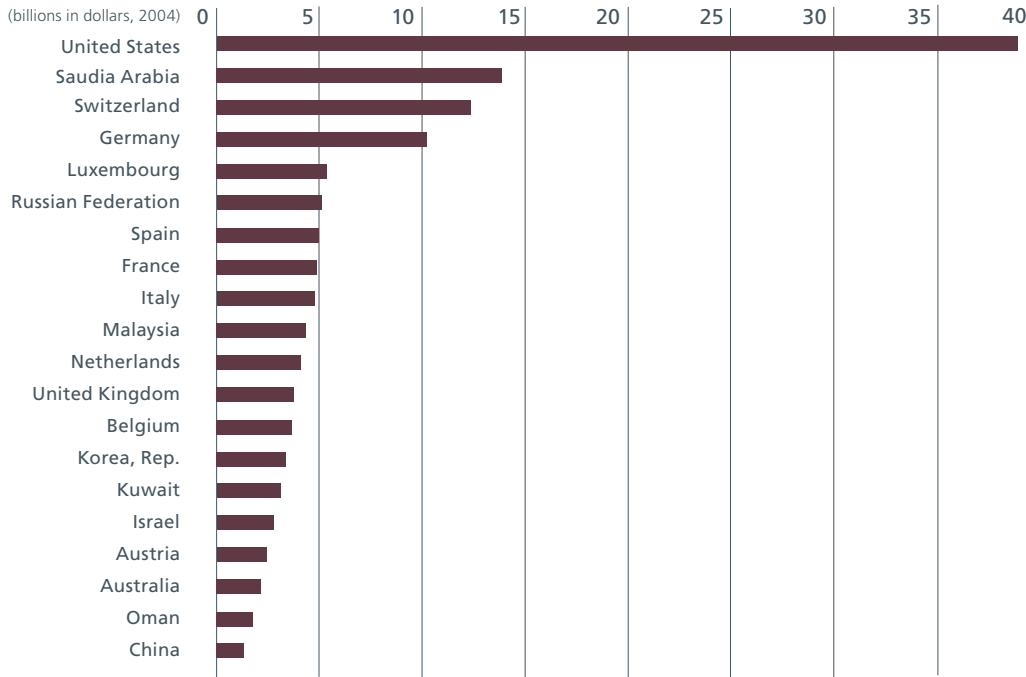
Not surprisingly, remittances rise during financial crises.



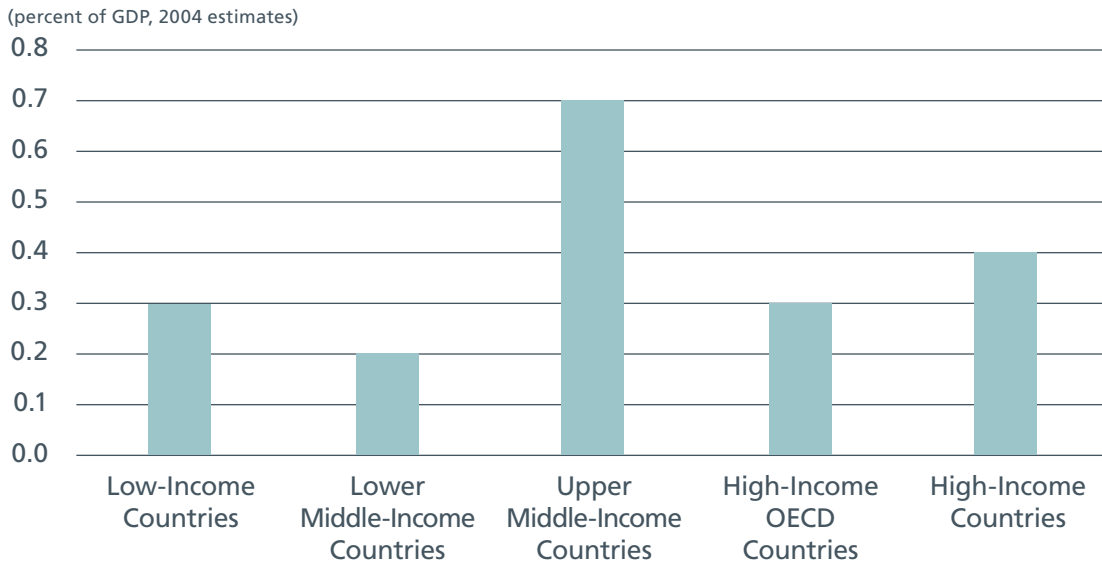
Source: *Finance and Development: A Quarterly Magazine of the IMF*, December 2005, Volume 42, Number 4.

**Figure 4: Sources of Remittances by Amount and Country Size**

Rich countries are the largest sources of remittances in dollar terms...



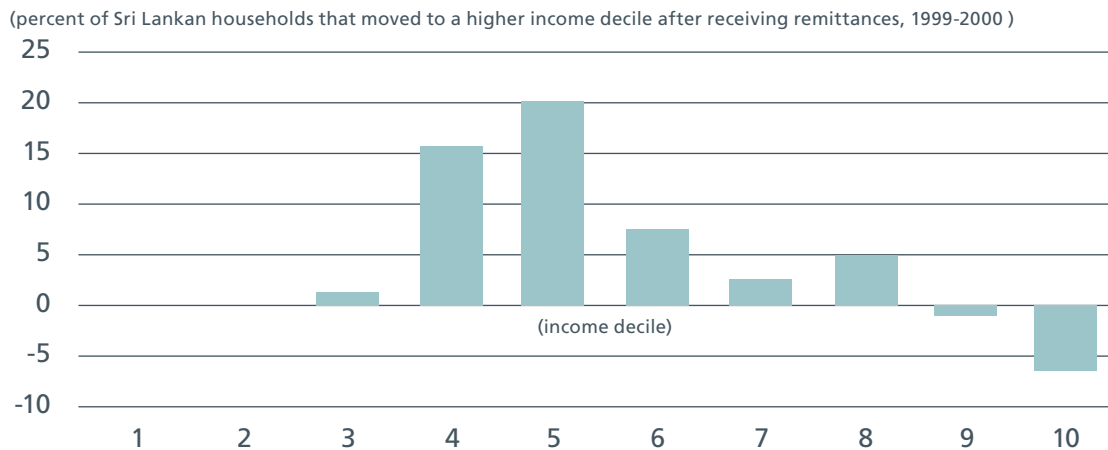
... but, in terms of GDP, upper middle-income countries are the largest.



Source: *Finance and Development: A Quarterly Magazine of the IMF*, December 2005, Volume 42, Number 4.

**Figure 5: Impact of Remittances on Household Reduction in Poverty**

Remittances help reduce poverty...



Source: *Finance and Development: A Quarterly Magazine of the IMF*, December 2005, Volume 42, Number 4.

## Remittances and Economic Growth of Developing Nations

Economic research in the 1970s and 1980s focused on the short-term implications of international transfers. The paradigm employed was typically a two-country open-economy trade model with a small, price-taking country as the receiving economy. One country was viewed as remitting and the other as receiving the transferred funds. Under Keynesian principles, the net impact of the transfer depended on the portion that would be spent on consumption in each country. Depending on the trade model used, mitigating effects of exchange rates might be considered: the demand for currency in the receiving country could result in currency appreciation, reducing exports, increasing imports, and thereby offsetting the original transfer. In fixed exchange rate versions of international transfer models, currency

demand from funds inflows led to liquidity expansions as central banks bought extra currency to maintain exchange rates. Whatever the trade model researchers had in mind, transfers were explicitly or implicitly thought of as official aid with a motivation to reduce income inequality between nations.

More recently, research has moved into consideration of longer-term effects of transfers, and in particular of remittances, whereby effects are influenced by different motives of donor countries and the characterization of recipient countries. Source countries' transfers are based on social or familial ties, not on reducing national income disparities. Recipient countries, which have become the destination of a large proportion of transfers, are characterized by income inequality and volatility, and by an absence of developed financial markets. Most importantly, there is an absence of credit and insurance. In such an environment remittances can serve as a substitute for financial markets, for example, allowing households to finance

investments, including investments in human capital, and in this way spur economic development. In addition, the remittance of emigrants' foreign-gained knowledge and experience could add significantly to the value and uses of the financial capital they remit to relatives at home and their immediate environs.

Because variations in the economic circumstances of remitters is uncorrelated with those of remitees who remain in the old country there are insurance benefits. Effects of remittances on fertility are also possible, often in poor countries leading to reduced family size. Remittances can enable greater education of women, which can be influential in reducing family size. Remittance inflows are even viewed as contributing to financial market development as remitted amounts provide a source of funds to local financial institutions. Based on improved data from developing countries it has also become easier to empirically test the impact of transfers and remittances with cross-sectional studies involving as many as 70 countries. Useful summaries of these fundamental changes in theoretical and empirical work on the link between remittances and economic growth can be found in papers by Hillel Rapoport and Frédéric Docquier (2005), and Paola Giuliano and Marta Ruiz-Arranz (2005).<sup>10</sup>

There is a common presumption that remittances are spent on consumption rather than on investment in productive assets that can improve future output and welfare. However, Giuliano and Ruiz-Arranz argue that there is no basis for this presumption. Indeed, they argue strongly that the lack of financial development in recipient countries makes the investment and insurance roles of remittances particularly pertinent. They note:

*"Given the difficulties associated with borrowing and getting insurance in developing countries, particularly in rural areas, our main hypothesis is the voluminous migrant remittances can substitute for a lack of financial development and hence promote growth via investment."*<sup>11</sup>

The relationship between remittances, financial development and growth could in principle go in either direction. On the one hand it is possible that highly developed, efficient financial markets may augment the effect of remittances by channeling them into their most productive use. Hence, in this case remittances are more effective with financial development: the association between growth and remittances is stronger with financial development. On the other hand, remittances may compensate for an inefficient financial system. The remittances might help investors circumvent the constraints of the financial system to take advantage of high economic returns that are inaccessible to them because of the lack of credit and savings vehicles. In this case, remittances are more strongly associated with investment and growth when financial development is poor.

Evidence at the specific-case level tends to support the view that it is in poor financial markets that remittances have their biggest impact on economic growth. For example, a study by Dustmann and Kirchamp (2001) investigated the impact of remittances accompanying Turkish migrants returning from Germany in providing start-up capital for micro enterprises. In their sample, 50 percent started a micro enterprise with accumulated savings within four years of returning to Turkey. Such a broad impact of remittances on capital investment is suggestive that the lack of financial market development had been an impediment that the



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10 - Hillel Rapoport and Frédéric Docquier, "The Economics of Migrants' Remittances", Institute of Labor Economics, IZA, Bonn Germany, Discussion Paper 1531, March 2005. Paola Giuliano and Marta Ruiz-Arranz, "Remittances, Financial Development and Growth", International Monetary Fund, Washington DC, Working Paper WP/05/234.

11 - *Ibid.* p.1

remittances had helped overcome. A similar conclusion can be drawn from a study of enterprise development in Mexico by Massey and Parrado (1998). This study showed that 21 percent of new business formations in the communities studied employed remitted earnings from the United States as an important source of capital. Confirmation of such an effect, suggesting remittances are overcoming financial market impediments, has been provided in a study by Woodruff and Zenteno (2001).<sup>12</sup>

The aforementioned broad-based empirical, as opposed to case-level, study of remittances and economic growth by Paola Giuliano and Marta Ruiz-Arranz explicitly allows for the role of financial development, or underdevelopment. A model is specified which allows economic growth to depend on well-understood factors such as investment, openness to international trade, inflation, education and population growth. Added to this list of standard influences on economic growth is remittances divided by GDP and various measures of financial development. In bivariate computations of correlations between variables in their 70-country estimation, they find that the correlation between remittances and growth is positive, as is the correlation between remittances and investment and remittances and openness. Financial development also is associated with economic growth. By considering impacts in a multivariate framework that allows for endogeneity among variables the authors conclude that the impact of remittances on economic growth is higher when a country's level of financial development is lower.

## The Current Cost of Remittances

A factor which can reduce remittances, and hence thereby reduce economic growth according to the evidence presented above, is the cost of remitting. Cost plays a direct role by reducing the net amount received out of any funds transfer, and indirectly by discouraging remittances.

Costs can be very high as we found in out from existing studies ranging from 10% to 12%+ depending on the amount transferred and the transfer agent. Second, they often are expressed as flat fees rather than as percentage fees, in many cases with little or no discount for larger transactions. Third, and potentially of major significance, the fees do not consider exchange rates.

A study dealing with remittances from the US to Latin America showed that the cost of remitting funds had dropped sharply to US\$16.32 for a US\$200 transfer in the summer of 2002, just over half of what it was three years earlier. However, the study also notes: *While the cost of sending money home has declined, individuals still pay a significant portion of the total amount they remit towards various fees and charges. This is especially so once the cost of cashing a paycheck and other fees are added into the picture. By that time, the total cost of the average remittance transfer often reaches 10 or 15 percent of the amount sent.*<sup>13</sup>

This study and others stress that heightened competition and innovation should drop the costs of remitting and significantly benefit

12 - See Dustmann C, and O. Kirchamp, "The Optimal Migration Duration and Activity Choice After Re-Migration," IZA Discussion Paper 299, Institute for the Study of Labor, Bonn, Germany, 2001, Massey, D. and E. Parrado, "International Migration and Business Formation in Mexico," *Social Science Quarterly*, Vol. 29, No. 1, 1998, pp. 1 – 20, and Woodruff, C. and R. Zenteno, "Remittances and Micro-Enterprises in Mexico," Unpublished, University of San Diego, 2001.

13 - Robert Suro, Pew Hispanic Center, "Latino Remittances Swell Despite US Economic Slump," Migration Information Source: Fresh Thought, Authoritative Data, Global Reach, February 2003, <http://www.migrationinformation.org/Feature/display.cfm?ID=89>

remittes. Suro suggests that cutting remitting costs to 5% would add more than US\$1 billion to the incomes of "some of the poorest households in the United States, Mexico, and the Central American countries covered in the Pew Hispanic Center projections. Between now and the end of the decade, the savings could amount to some \$12 billion. It goes without saying that such a sum could change many, many lives. Whether this promise is realized depends on the interaction between financial institutions and a population of new consumers."<sup>14</sup>

A study of remitters in Bogota and Mexico City found that the cost of sending US\$100 was US\$19 when using a bank for an unbanked person. If the same transaction was made by a bank account holder the transfer costs dropped to a standard ATM charge.<sup>15</sup>

A more recent study of remitting in the Asia Pacific region published just after our initial work was completed suggests that the range of remitting costs is even wider going from 3% to 24%.<sup>16</sup> In particular they note that banks have significant potential to compete in the remittance area, but appear not to have exploited their opportunities and competitive advantages to date.

From these studies and other more idiosyncratic, anecdotal and informal evidence it is clear that the costs of remitting are extremely high, often very or completely opaque, and as a result these costs divert significant capital from poor households and nations to transfer agents. There is a major opportunity accordingly, to add to the wellbeing of these households and nations through an improved, lower cost and more transparent remitting process that nevertheless leaves a reasonable profit for the remitting agent.

14 - *Ibid.*

15 - Tova Solo, "The High Cost of Being Unbanked," AccessFinance, February 2005, No. 3, page 2.

16 - International Money Transfer: MoneySend™: End User Pricing Study Update (San Francisco, CA: Edgar, Dunn and Company), 20 August 2007.

17 - Yuan-li Wu and Chun-hsi Wu, Economic Development in Southeast Asia: The Chinese Dimension, (Stanford, CA: The Hoover Institution Press, Stanford University), 1980.

## Potential Barriers to the Growth of Remittances

Two other significant potential barriers to the growth of remittances exist. They include taxation and otherwise regulating and restricting remittances in the sending country. This has been proposed repeatedly in Southeast Asia in the past with respect to overseas Chinese remittances back to China because of the fear that such remittances were draining the wealth of the remitting country.<sup>17</sup> Such fears rear their heads frequently particularly in developing nations and particularly during times of economic stress, and thus the creation of such barriers cannot be ruled out *ex ante* and must be considered a risk from time to time in diverse countries.

Similarly, the scale of remittances is sufficiently large in terms of the GDP in many countries as we have shown above, that national tax authorities might be tempted to tax inbound remittances as an easy source of tax revenue. Of course, this would work against the country's interest in terms of the positive effects of remittances on growth, etc. Taxes mean less of any given amount sent arriving in the country and also provide an incentive to remit fewer funds. Taxes would also likely encourage the use of less well regulated and more risky and costly remittance channels.

Either of these barriers would reduce the scale and growth of remittances and clearly disadvantage both the recipient country and the receiving households. Both should be discouraged through the sort of research we document here showing the enormous importance and benefits of remittances to receiving individual households and countries.

Barriers to worker migration will also affect remittance scale and growth. These barriers might be imposed either in the host country or the home country. There are clear precedents for these sorts of restrictions and periodic threats.<sup>18</sup> “Guest” or migrant worker permits are carefully monitored by receiving countries and, as we have seen in Europe during the past decade, are subject to significant political pressure when domestic unemployment rates are high and economic growth low. Similarly, the issuing of passports and permits to work abroad by source countries are also subject to local political pressures and can be restricted from time to time.

The merits of facilitating the international flow of workers and remittances are enormous as suggested by the analysis to this point. It is vital, particularly to low income countries that the benefits of emigration and remittances are continually kept at the forefront of the local policy agenda so that barriers to both are kept to an absolute minimum. Continuing research programs on remittances and the broad dis-

semination of the results are critically important means to discourage needless and dysfunctional regulatory and tax barriers to emigration and remittance flows.

## Growth Potential for Remittances

### International Remittances

As the annual rates of change of remittances show in Table 1, there is substantial variation from country to country. For the nations with the largest estimated dollar value of inflows as of 2005, the average per annum rates of change vary from a high of over 35 percent for China to a small decline for Portugal. The variation is even greater if we consider some of the countries which have high remittances relative to their GDPs. Table 4 shows examples of the growth of remittance to just Central American countries between 2001 and 2004. The growth rates are extremely high with remittances to Guatemala increasing nearly five-fold in four



**The issuing of passports and permits to work abroad by source countries are also subject to local political pressures and can be restricted from time to time.**

**Table 4. Remittances to Central American Countries, Millions of US Dollars, 2001- 2004**

Country	2001	2002	2003	2004
Guatemala	584	1,690	2,106	2,681
El Salvador	1,911	2,206	2,316	2,548
Honduras	460	770	862	1134
Nicaragua	660	759	788	810
Costa Rica	80	135	306	320
Panama	--	--	220	231
Belize	--	--	73	77

**Source: Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of data from the Inter-American Development Bank/ Multilateral Investment Fund (IADB/MIF).**

18 - The Yuan Dynasty in the 18th and 19th century was famous for the restrictions it placed on outward migration (Purcell, op. cit. Chapter 1). Similarly, Mexico and the Philippines from time to time talk of restricting the outward flows of workers.

years. The study from which Table 4 is taken stresses the significant poverty reduction and economic growth benefits that these rapid remittance increases have created.<sup>19</sup>

What is it that causes one country to have rapidly rising remittance inflows while another has flat or even shrinking remittances?

The key factors that affect remittances are the number of expatriates, their economic success in their new countries, and the perceived need to send money back to support their families. The cost and ease of remitting doubtless influence the volume of remittances as well. The number of expatriates and the perceived need to remit both depend to some extent on economic conditions in their original domicile: the weaker the economic circumstances relative to outside opportunities are, the more people are likely to leave and require more need to help those who are left behind. The remaining factor, the economic success of migrants in their new countries, which determines their ability to remit, depends on education and motivation. For example, the rapid growth in remittances to China in the decade up to 2005 might be attributed to limited opportunities in China in the 1970s, 1980s and early 1990s when many very talented people left the country for education or who opened businesses as soon as possible in their new host country. The family and work/education ethic of the emigrants and their success led to their growing ability to remit. On the other hand, admission to the European Union and rising income standards for the average Portuguese could have reduced emigration and the perceived need to remit to those who stayed behind.

As well as the variables affecting migration and propensity to remit, there are other factors relating to the absence or presence of barriers to the flow of funds or people. For example, travel may be adversely affected by the ability to obtain a passport at home or a work permit/visa in another country. Immigration may be subject to ceilings and requirements for qualification in particular skills. Controls on currency convertibility and remittability exist in many countries. A good forecasting model would have to consider all the potential barriers, and the possibility that some of these could be relaxed by pressure from international institutions such as the WTO, or through signing bilateral agreements.

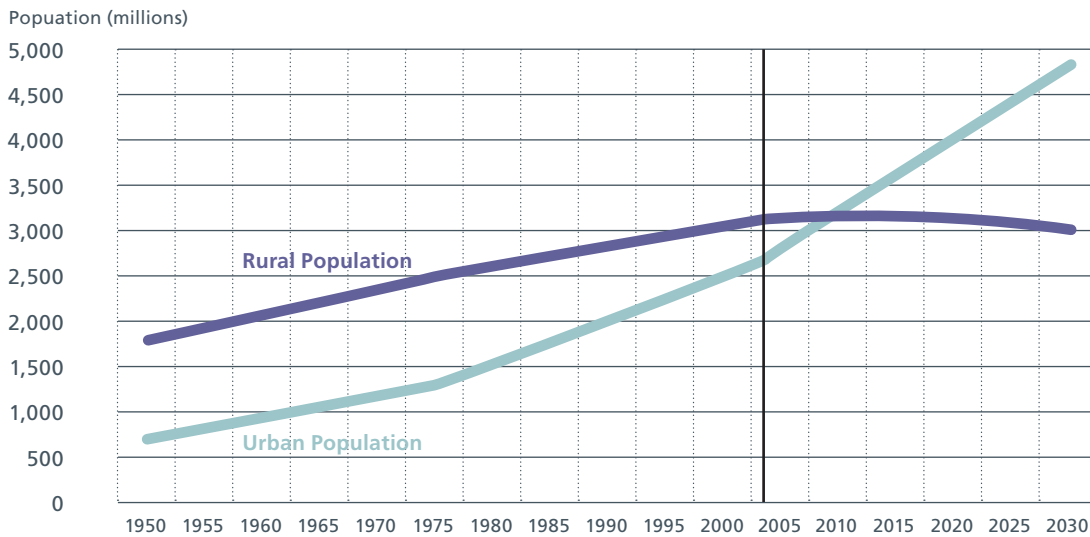
#### **Intra-country Remittances**

As was mentioned earlier, a potential direction to explore for possible future growth in remittances is migration within large, rapidly urbanizing and industrializing countries such as China.<sup>20</sup> Here there is no currency conversion required, but many who remain in the countryside are likely to be unbanked or underbanked, and the need for remittances and the ability to make them are often substantial. Indeed, the need to remit to the countryside and villages may be increased by urbanization which forces up the prices of food and other essentials. Relatively high urban incomes support the ability to remit. The same benefit of stimulated economic growth via remittances is also likely to apply as they help overcome inadequacies in the financial infrastructure in rural areas. Indeed, remittances could promote the development of financial infrastructure as banks and other financial institutions are attracted to the countryside by the remitted funds.

19 - Dovelyn Agunias, Migration Policy Institute, "Remittance Trends in Central America," *Migration Information Source: Fresh Thought, Authoritative Data, Global Reach*, April 2006 <http://www.migrationinformation.org/Feature/display.cfm?>

20 - An account of the scale and nature of internal migration in China, along with survey details of the characteristics and circumstances of those who migrate can be found in Yuwa Hedrick-Wong and Fan Gang, "Impact of Labor Mobility on Regional Income Disparity and the Roles of the Financial Instrument, 2005."

**Figure 7: Urbanization of the Global Population**



Source: World Urbanization Prospects 2005 Revision, United Nations, 2007

Figure 7 shows that we surpassed the point where globally, the urban population now exceeds the rural population. Table 5 makes it clear that while urbanization has occurred throughout the world and is predicted to grow even further, it is the poorer and more rural parts of the world where it is occurring most rapidly. The projection for the next quarter century is for the fastest rate of urbanization to occur in Asia, followed closely by Africa. These two continents are therefore where we could expect the fastest growing markets for intra-country or perhaps intra-continental remittances.

It should be recognized that as people move to towns, some of which may be smaller urban settings, the coverage by mobile networks expands due to greater concentration of potential users. This will also facilitate the ability to use the remittance system. So how fast is mobile network coverage expanding? Answering this question is important if we are to identify the potential future market for a mobile telephone based remittances system.

#### **Growth in Mobile Phone Coverage**

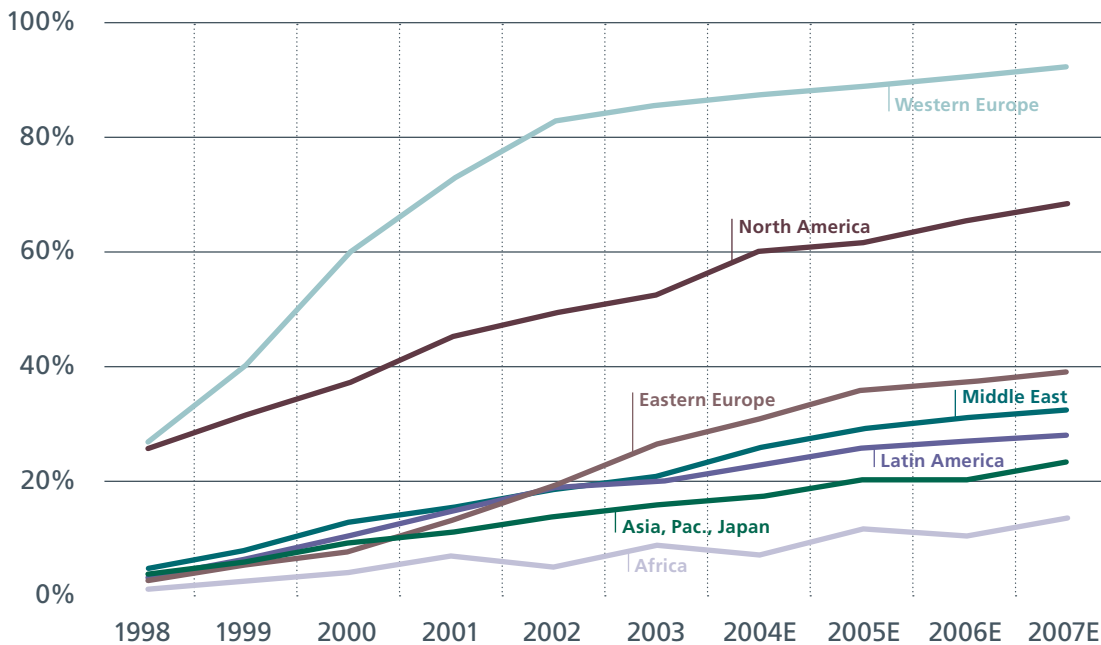
The extent of coverage of mobile networks is of course an important element for the potential growth and success of a new program. The compound average growth rates of mobile phone penetration in major regions during 1998-2003, with projections to 2007, are shown in Table 6, while penetration levels over the combined period are shown in Figure 8. The figure shows that the penetration levels are lowest for the poorer regions of the world. These are, of course, the places most likely to be receiving remittance inflows. The table shows that the low penetration regions are also the ones with the greatest potential for growth. These are the very conditions that bode well for a new program: fastest growth in the poorer regions where the remittances are likely to be the largest.

**Table 6: Percent Compound Average Per Annum Growth of Mobile Phone Penetration**

Region	1998-2003	2004-2007, est.
Western Europe	28	2
North America	17	7
Eastern Europe	66	12
Middle East	42	9
Latin America	39	7
Asia/Pacific, Japan	38	10
Africa	57	21

Source: Cisco Systems: Maximizing the Value of Mobile Networks: White Paper, 2004, [http://www.cisco.com/application/pdf/en/us/guest/netsol/ns177/c654/cdccont\\_0900aec8013f65a.pdf](http://www.cisco.com/application/pdf/en/us/guest/netsol/ns177/c654/cdccont_0900aec8013f65a.pdf)

**Figure 8: Mobile Phone Penetration by Percentage of Population**



Source: Cisco Systems, Maximizing the Value of Mobile Networks: White Paper, 2004 [http://www.cisco.com/application/pdf/en/us/guest/netsol/ns177/c654/cdccont\\_0900aec8013f65a.pdf](http://www.cisco.com/application/pdf/en/us/guest/netsol/ns177/c654/cdccont_0900aec8013f65a.pdf)

## Additional Possibilities for a New Program

A new mobile phone-based remittances program in our view provides opportunities for potentially serving quite a wide range of customers beyond the traditional remitters discussed in the bulk of this paper. These additional markets are set out here for completeness and will need to be researched further to assess their unique characteristics, size and servicing models. However, we do think that they are worth exploring as logical extensions of the traditional international remittance model focused on above.

### The “new remittance men”

“Remittance men” were a well known set of remitees in the 19th century. Today, there is a burgeoning group of “new remittance men” comprising households who take extended holidays, or indeed enjoy permanent retirement, in foreign countries. While these people will doubtless be banked, a new program may well cut transactions costs and simplify the process of transferring funds from their home banks to their foreign financial institutions in their place of foreign domicile. In Europe, the case of Britons holidaying or retiring in Spain and Portugal is well documented and much discussed. In North American, Canadian (and American “snow-birds”) from northern climes spending half a year or more in southern climes or in Mexico and Central America also represents a large and growing potential market segment.

### International students abroad

International students and their parents, particularly those studying in the US, UK, Australia, Canada and New Zealand, represent a large

potential pool of potential clients for any new program. There are useful estimates of international student numbers as well as the growth in these numbers and can guide those providing remittance services. There is particularly good international student information in the US, UK, Australia, Canada, New Zealand and Singapore which can serve as a useful basis for estimating the scale and value of this market segment.<sup>21</sup> Many of these students come from quite well off families and tapping this market for “reverse remittances” could be particularly profitable as a result.

### Domestic students studying away from home

In developed countries such as the US and Canada, domestic students living away from home could provide another interesting potential market. These students and their families will likely be well banked, but a new program could well be used as a facilitator of funds transfer between/among bank accounts by the well banked parents and students in these and similar developed countries as with the “new remittance men.

### Vacation travelers

As was the case with the “new remittance men” above, with the burgeoning retirement travel market, there would appear to be a significant opportunity to consider extending a new program to these (and potentially other) vacation travelers. This group will overwhelmingly be banked, and will be abroad for much more limited amounts of time than the long stay vacationers and retirees, but they still may benefit from the convenience of accessing their domestic bank accounts easily while traveling.



**Today, there is a burgeoning group of “new remittance men” comprising households who take extended holidays, or indeed enjoy permanent retirement, in foreign countries.**

21 - For the recent US experience, see for example: Jeanne Batalova, “Spotlight on Foreign Students and Exchange Visitors,” Migration Information Source: Fresh Thought, Authoritative Data, Global Reach, <http://www.migrationinformation.org/USfocus/display.cfm?ID=489>. Other good sources are: Organization for Economic Cooperation and Development (OECD), Database on immigrants and expatriates, November 2005, [http://www.oecd.org/document/51/0,3343,en\\_2825\\_494553\\_34063091\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/51/0,3343,en_2825_494553_34063091_1_1_1_1,00.html); for Australia, Australian Education International (AEI) News, <http://aei.dest.gov.au/AEI/MIP/Statistics/StudentEnrolmentAndVisaStatistics/Recent.htm>; and for the United Kingdom, The UKCOSA: Council for International Education <http://www.ukcosa.org.uk/index.htm>,

## Back to the Beginning and Beyond: The Timeliness and Utility of a New Program

### Overcoming fear of banks

A study of remittancing practices and costs in Mexico noted that the costs of not using banks were very high. However, the same study also noted that low income and rural Mexican households may not be comfortable with banks and the banking system.

*This low participation rate stems from, among other issues, citizens' unfamiliarity with the banking sector since Mexican banks have traditionally focused their services on the wealthy. This extends to Mexicans' attitudes toward banking in the United States.<sup>22</sup>*

Thus, this is potentially an area where a new remittance provider may help develop financial infrastructure and significantly improve access by households to financial intermediation. For example, new simple mobile telephony technology may hold promise to deliver to low income and unbanked households high quality financial services. Here again, there is the possibility of creating a valued new economic service under the rubric of an innovative remittance program, while simultaneously adding significantly to institutional and cultural development.

However, opportunities to "bank the unbanked" are equally significant in developed countries, particularly in the US with its large immigrant and otherwise unbanked populations.<sup>23</sup> To the extent that a program can facilitate banking the unbanked, the program will increase its social and economic value to the unbanked and to the linked banks who can build on the program.

22 - Kasey Maggard, "Banks and the growing remittance market: as the immigrant population in the United States booms, the amount of money sent out of the country is skyrocketing. Banks are taking steps to enter the lucrative remittance market despite significant cultural barriers," *EconSouth*. September 22, 2004.

23 - The scale and potential of serving unbanked populations has been documented quite widely for the US. See: [Maria Bruno-Britz](#), "Targeting the Unbanked/Underbanked With the Right Solutions," *Bank Systems and Technology*, July 28, <http://www.banktech.com/showArticle.jhtml?articleID=191203058>.

24 - *Remittances: A Preliminary Research*, op. cit., page 12.

## Closing Comments

We have uncovered areas into which a new remittance program might expand and provide recipients and economies with opportunities to grow their financial, economic and social infrastructure.

Perhaps the best encouragement we can offer is provided by the Canadian study cited earlier, which concludes:

*Arguably, the high cost of remitting to the developing world acts to decrease the amount of funds that actually makes it to the receivers. To lower the cost, there is a role for international cooperation with host governments in developing banking and credit systems, along with prompting and increasing trust and usage of such systems, in areas which are not presently banked. Further, the benefits of "banking the unbanked" may also translate into more regularized use of savings.*

*The developmental impact of remittances is clear. Remittances spent on goods or services domestically generate positive multiplier effects on an economy. Further, the value added for improved nutrition, education and health care is a long term investment which will increase social and economic benefits to a country.*

*Finally, it should be noted that remittances are acting, not only to change consumption patterns of receivers, but internal government policies of receiving countries. In efforts to increase and encourage the flow of remittances, governments must reach out to their nationals abroad by policies, such as dual citizenship, which cater to their diaspora. Internationally, this also prompts a more activist role for governments in the human rights of their migrants abroad.<sup>24</sup>*

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