Conceptual considerations, empirical challenges and solutions in measuring remittances

Draft Paper

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Introduction

Although for the past ten years an increasing number of players have attached significant importance to the impact of remittances on development and economic growth, its full contribution will be clearer once there is greater knowledge and more accurate measurement of the flows going to Latin America and the Caribbean. As part of a CEMLA mandate, this commissioned report tries to understand the challenges and opportunities associated with the measurement of remittances.

The report highlights differences between Central Bank data on remittances and actual flows, but more importantly points to a range of challenges that have made estimating and recording the money immigrants send back to their relatives more difficult. Among the major challenges highlighted are problems concerning the conceptual interpretation of remittances, as well as issues regarding appropriate and standardized methodological applications in operationalizing these concepts. Other issues identified refer to limited knowledge about the universe of remittances, and a lack of communication between those monitoring these flows and the entities that intermediate these transfers.

The report also points to three immediate solutions that can help improve data measurement. These recommendations include improving communication and data sharing with remittance transfer companies, strengthening methodological aspects, and better defining remittances. Central to this analysis is the need to better understand the current migration flow, and the characteristics that distinguish it from other periods. Migration today is mostly of a transnational nature, a condition that makes traditional definitions relatively obsolete.

Finally we advance a measurement methodology that includes the use of census data, surveys and raw company data on transfers. We also recommend lessons learned based on the measurement methodology employed through collaborative efforts between the International Organization of Migration, governments, and money transfer companies.

I. About the Flow of Remittances

This section briefly examines the official and estimated remittance figures, as well as issues relating to the extent to which there is accuracy in reporting and quantifying their volume and the tools that may help in approximating their measurement.

a) About official and estimated remittance flows

Prior to 2000 there were very few studies or analyses on remittances to Latin America or even worldwide for that matter . It was not until 2001 that a conference on remittances organized by the Inter-American Development Bank advanced for the first time a report concerning migrant monetary flows to Latin America and the Caribbean. The estimated figure for 2001 flows at the time was US$24 billion. Figures were largely based on data collected from Central Bank offices in the region, with some exceptions where numbers were inconclusive as in the case of Cuba, Haiti and Nicaragua. However, the total amount reflected data from only 15 countries. By 2004, the figures had expanded to include data from 24 countries. Table 1 shows the Inter-American Development Bank (IADB) figures as reported by the Multilateral Investment Fund (MIF).

Table 1: Remittances to Latin America, 2001-2004 (in millions)

Year	2001 (24 billion)	2002 (32 billion)	2003 (38 billion)	2004 (45 billion)
Mexico	9,273	10,502	13,266	16,613
Brazil	2,600	4,600	5200	5,928
Colombia	1,600	2,431	3,067	3,857
Guatemala	584	1,689	2106	2,681
El Salvador	1,920	2,111	2316	2,548
Dominican Republic	1,807	2,206	2217	2,438
Ecuador	1,400	1,575	1656.9	1,740
Jamaica	967	1,288	1425.9	1,497
Peru	905	1,138	1295	1,360
Cuba	930	1,265	1194	1,194
Honduras	460	770	862	1,134
Haiti	810	931	977	1,026
Nicaragua	610	759	787.5	800
Paraguay				500
Bolivia	103	104	340	422
Costa Rica			306	320

Year	2001 (24 billion)	2002 (32 billion)	2003 (38 billion)	2004 (45 billion)
Argentina			225	270
Venezuela		235	247	259
Panama				231
Guyana		119	136.5	143
Uruguay				100
Trinidad y Tobago		59	88	93
Belize	42	38	73.5	77
Suriname				50

Source: MIF estimates based on Central Banks of each country.

The increase in flows from 2001 and 2004 has thus been partly a reflection of the number of countries included.[1] However, in some cases it also reflected estimated numbers based on interviews with various organizations, including money transfer companies. For example, remittances to Mexico in 2001 as reported by the Bank of Mexico were US$8,895 million or 4% less than what the MIF reported. Despite this relatively small difference, money transfer companies have argued that these figures are still far less than what they move and estimate (see below).

Haiti and Nicaragua provide another example. Numbers have been relatively unreliable in these two countries, and Central Bank officials have acknowledged that their figures are smaller than what is actually flowing inward. However, they argue that they can't correct the discrepancy and thus rely on reporting figures based only on information they receive primarily from banks. Estimates were thus employed by MIF, which looked at migrant populations and their propensity to remit. It was determined that the presence of high levels of informality in remittance transfer channels prevented the Central Banks from recording information accurately. A similar example is that of Guyana, where remittances were reported by the Central Bank as amounting to fifty million, whereas one money transfer company alone, Western Union, conducted over sixty million dollars in transactions that apparently went unrecorded during that same year.

[1] This has also been the case in the volumes of remittance flows worldwide as reported by the World Bank and the IMF. Reports on the number of countries receiving remittances has increased over time. See de Luna Martinez (2005).

For a significant period of time, Central Bank statistics potentially missed a very substantial portion of the flows that have occurred, and furthermore could not provide adequate assertions about their undercount. One reason is that for a long time these flows did not represent the significance they have achieved today, and thus efforts to improve measurement and quantification were limited to individual rather than institutional action.

As Perez Lopez argues, often remittances estimates were made by researchers or organizations "through analyses of socioeconomic, demographic, and financial data from surveys (of varying quality) and secondary data sources (e.g., censuses) and/or by combining these data with BOP statistics."[2]

Central to quantifying the real volumes of remittances is the adoption of appropriate measures that contain a conceptual framework defining remittances, an empirical consideration of the challenges met in measuring these flows, and the methodological tools required to address these issues. Some issues to consider concern the adoption of a consistent definition of remittances that matches the realities of present day migration, improving data coordination with licensed institutions working in remittance transfers, as well as estimating informal networks and remittance propensities. The following sections looks into each of these aspects.

[2] Perez Lopez, Jorge *Hispanic Journal of Behavioral Sciences*. August 1998, v20, n3, p320(29).

II. Defining remittances: consensus, differences and context

Worker remittances have generally been understood as the earnings migrants send from a country other than their own to a relative in their country or origin for the purpose of meeting certain economic and financial obligations. The point of departure for remittances is the migration of people who respond to the complex reality of the foreign labor marketplace, political circumstances and/or emergencies that influence one's decision to move in order to meet their responsibilities at home.

This complex reality concerning the movement of people has been accompanied by an effort to document their earnings as foreign savings, recorded as such in the balance of payments of each country's national account system. The critical issue in maintaining that record has been the establishment of a definition that uses appropriate parameters for recording these transfers as migrant earnings. The International Monetary Fund, the United Nations, and the World Bank among other international institutions, have used concrete definitions that seek to capture funds transferred as migrant earnings, depending on basic considerations.

a) Traditional or conventional definitions & international efforts

The most commonly cited definition of remittances is that provided by the IMF in the fifth edition of its *Balance of Payments Manual* (BMP5) and the accompanying *Balance of Payments Textbook* and *Balance of Payments Compilation Guid*e (Reinke and Patterson 2005). The three balance of payments components often analyzed in relation to remittances are: *workers' remittances* (current transfers), *compensation to employees* (income), and *migrants' transfers* (capital transfers). The first two are part of the current account, while the latter is part of the capital account.

According to the BPM5 "*workers' remittances* covers current transfers by migrants who are employed in new economies and considered residents there," and goes on to define a migrant as "a person who comes to an economy and stays there, or is expected to stay, for a year or more." This definition also stipulates "workers' remittances often involve related persons." The BPM Textbook further adds that workers' remittances are "transfers made by migrants who are employed by entities of economies in which the workers are considered residents," but also notes "transfers made by self-employed migrants are not classified as workers' remittances, but as current transfers" (91).

The BMP5 definition of *workers' remittances* distinguishes – and hinges on a distinction – between differences in migrant labor and residency status. In fact, the IMF makes another distinction with regards to what constitutes a migrant based on their residency status in its definition of *compensation of employees*. As noted above, c*ompensation of employees*, along with *workers' remittances*, are the two main BMP5 current account categories cited in reference to remittances. However, while *workers' remittances* refer to transfers, *compensation of employees* refers to remuneration for work, and is defined as "wages, salaries, and other benefits earned by individuals—in economies other than those in which they are residents—for work performed for and paid by residents of those economies." Seasonal workers, for example, are subject to fall under the compensation category, as are employees such as embassy staff.

This distinction raises the question as to what constitutes a resident as opposed to a non-resident. The BMP5 does not define workers or migrants[3], although the rule of thumb has been that any individual who has resided in the country for one year is classified as a resident. However, even when applying such a rule, it is increasingly difficult to distinguish between residents and non-residents considering the contemporary landscape of human mobility. In the Latin American and Caribbean context, for example, some individuals may hold a residency status in a country other than their home country, work seasonally there, but yet physically reside most of the time in the home country. These individuals are transnational migrants, who by virtue of their reality live in more than one country, and may often work in more than one country.

The BPM5 uses a third typology, also frequently cited in reference to remittances called *migrants' transfers*. *Migrants' transfers*, a component of the capital account, are "contra-entries to the flow of goods and changes in financial items that arise from the migration of individuals from one economy to another," and like *workers' remittances* are classified as transfers.

[3] "The activities of an individual—whether he or she is regarded as a resident or a migrant—do not affect the aggregate transactions of the compiling economy with the rest of the world. Therefore, difficulties on this score will not, in principle, be a source of net errors and omissions in the balance of payments. Even so, efforts should be made to observe the distinction between nonresident workers and migrants" (BPM5, 272).

However, including *migrants' transfers* in remittances calculations is misleading since they involve assets that remain in the same hands – those of the migrant who has moved his or her assets from one country to another. The concept of remittances employed here is one that involves the intention of wealth transfer, and *migrants' transfers* do not fall into this interpretation (Patterson and Fitzgibbon 2004). In fact, the UN Advisory Experts Group in National Accounts (AEG)[4], at its third annual meeting in July 2005, supported recommendations to remove *migrants' transfers* from the capital account, because no change of ownership occurs (SNA/M1.05/13.1 and SNA/M1.05/13.2).

This and other initiatives aimed at improving the definition of remittances largely stem from efforts undertaken by an international working group formed at the behest of the G-7 Finance Ministers during the June 2004 Sea Island Summit, and being coordinated by the World Bank's Development Data Group and the IMF's Statistics Department. The International Technical Meeting on Measuring Migrant Remittances brought various stakeholders – including the IMF, OECD, UNSD, World Bank, and Central Bank officials – together in January 2005. The group has agreed that the Balance of Payments is an "appropriate framework for improving the estimation and reporting of remittance data." Furthermore, consensus has been reached that revisions to the definition of remittances, as well as methodologies associated with quantifying these flows, should focus more on "household to household" transactions, deemphasizing "concerns about worker and migrant concepts" (IMF 2005).

In this vein, the Technical Subgroup on the Movement of Natural Persons (also known as Mode 4[5]) has assumed adjusting its terms of reference so that remittances can be defined and measured "independently of temporary worker issues" (IMF 2005). Mode 4, which is chaired by the UN Statistics Division (UNSD) and reports to the Inter-agency Task Force on Statistics of International Trade in Service, is coordinating its work with the IMF's

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[4] The AEG comprises 20 country experts in national accounts from all regions of the world.

[5] According to the IMF's Manual on Statistics of International Trade in Services, GATS Mode 4 "covers the presence of foreign workers in the market abroad. These can be employees working for foreign affiliates classified as services suppliers, and those sent abroad by a services supplier to provide a service. It also covers self-employed persons providing services. Borderline cases are discussed to clarify their treatment" (BOPCOM98/1/5).

revision of the BPM5 and makes recommendations to the IMF Committee on Balance of Payments Statistics. During the third AEG meeting, Mode 4 advanced the following items:

a) eliminate the concept of "migrant" from the Balance of Payment and Systems of National Account (SNA)[6] frameworks and instead use exclusively the concept of resident;
b) replace the BPM5 component "workers' remittances" with the component "personal transfers" to bring the BOP transaction in line with the 1993 SNA item "household transfers"; and
c) introduce two new BOP components, namely "personal remittances" and "institutional remittances", to meet users' needs (SNA/M1.05/15.2)

AEG members supported the Mode 4 recommendations, and therefore corresponding adjustments will be made. Definitional enhancements and adjustments are ongoing, and the G-7 expects a draft report on findings and recommendations by fall 2005.

The following section discusses the challenges that arise in operationalizing the definition into a measurable quantity.

III. Challenges or constraints in measuring remittance transfers

The first challenge to operationalizing the quantification of remittances is conceptual; the presence of three broad aggregative definitions makes it harder to interpret how to quantify flows. However, other constraints are also present. There is data inaccuracy due to problems associated with a) knowing the universe of remitters and the intermediaries facilitating the process, b) enforcing data compilation; c) maintaining a line of communication with intermediaries and other relevant organizations, d) possessing the appropriate methodologies to capture the data, and e) political will.

a) Conceptual challenges

Conceptual issues concerning remittances matter. One problem relates to the extent to which a prevailing definition is commensurable with reality. In the Latin American and Caribbean context for example, many individuals hold a legal residency status in another

[6] The 1993 System of National Accounts is a conceptual framework that sets the international statistical standard for the measurement of the market economy. It is published jointly by the United Nations, the Commission of the European Communities, the International Monetary Fund, the Organisation for Economic Co-operation and Development, and the World Bank.

country, work seasonally there, and yet physically reside most of the time in the home country. These are transnational migrants, who by virtue of their reality live in both places, and may often work in both. They would fit both categories.

Another difficulty lies in that seasonal workers with irregular or undocumented legal status in the host country are significantly hard to track and account for. Millions of Mexican migrants work in the United States for six months or less. Nicaraguans in Costa Rica, Dominicans in Puerto Rico, Haitians in the Dominican Republic, Paraguayans in Argentina and Peruvians in Chile are examples of individuals who earn wages and salaries, remit portion of their money back to their families, but who once they return bring their earnings with them, and yet their numbers are unknown. Thus, implementing a definition using these categories will require an adjustment to the reality of resource limitations in human movement tracking.

Secondly, interpretation prevails over definition. Many countries, either for lack of data, methods or knowledge, blur or lump flows into one single category: workers' remittances. A look at the Mexican case suggests how challenging it is to operationalize concepts that are difficult to document. Taylor shows for example "in 1998, Mexico reported $5.6 billion in workers' remittances and only $876 million in compensation of employees, even though many Mexican migrants were abroad fewer than 12 months. When a cashiers check or postal money order is sent from an individual in the U.S. to someone in Mexico, the Mexican banking system has no way of knowing how long that individual has been abroad, or even if s/he is really a migrant from Mexico" (Taylor 2004,).

Thus, defining remittances is a concept that will need contextualization and commensurability with contemporary international migration. Providing such definition has done through dialogue with remittance intermediaries, remitters and recipients themselves.

b) Knowledge of the universe of remitters and intermediaries

Commensurability or correspondence between ideas and reality is a necessary condition for properly measuring remittances. This is a major challenge within the context of migration.

Many countries, if not all, do not accurately know how many individuals have emigrated outside of thecountry or what the composition of the remittance marketplace is, that is, how many firms operate, and to what is informality present.

It is fundamental to be aware of the universe of remitters in order to understand the size and volume of remittances and the propensity that migrants have to remit. Most of the time, Central Banks are unaware of the population living abroad, and whether those living abroad are short or long-term migrants. Some Banks maintain contact and data sharing with national census institutes, but neither do these necessarily maintain adequate information. Thus, Central Banks mostly rely on reports they receive from institutions complying with the provision of monetary transfer records. This situation is not unique to Latin America and the Caribbean, or to the rest of the developing world. The United States Bureau of Economic Activities (BEA), for example, uses data that often underestimates the immigrant or foreign-born population in the country.   The BEA often takes households as its unit of analysis, rather than individuals.

Presently, official statistics put the number of Latin American immigrants outside the region at 20 million, with an additional 5 million classified as intraregional migrants. These figures represent just 5% of the total Latin American and Caribbean population. The table below shows the distribution of immigrants across selected regions or countries where information is available.

Table 2: Latin America and Caribbean immigrants

	U.S.A.	Canada	Japan	Europe
Caribbean	2,953,066	294,055		60,000 Dominicans in Spain
Central America	2,026,150	71,865		
South America	1,930,271	300,000	350,000 (Brazil and Peru)	400,000 Ecuadorians in Spain;
Mexico	9,177,487	36,225		
Latin America & Caribbean	16,086,974	702,145	350,000	2,000,000

Source: U.S. Census Bureau; Canada Statistics, Canada Statistics 2001 Census, IOM, Migration from Latin America to Europe: Trends and Policy Challenges, Geneva 2003. Japan: Rosa Ester Rossini "O Novo Enraizamento: a conquista do espaço pelos nikkeis do Brasil no Japão" 2002.

These numbers do not fully account for the undocumented population, which could represent more than 30% of the officially recorded migrant stock. More importantly is that once Central Bank offices are better informed about their emigrant populations and their destinations, better sense is made of how to identify them and quantify the range of remittances sent. Central Banks can coordinate efforts with census offices in the home and host country to get a better sense about migrant economic activities, for example, by jointly elaborating census and survey data.

Another challenge concerning the universe of remittances that information about those who intermediate remittance transfers is limited. Until recently, in most countries the information available referred to Western Union and MoneyGram as the intermediaries transferring remittances. However, the marketplace has become more sophisticated and in some countries informality is still a problem. Knowing the players in the remittance intermediation market is relevant for several reasons. First, it ensures a better understanding of who the relevant players are and what their participation in the marketplace consists of. Second, knowing the players provides data monitors the ability to establish a relationship with such intermediaries and to obtain data about the senders, including their demographic profile, amounts, sending frequency, and even motivations for remitting. Among all the players in the remittance transfer market, money transfer companies probably know their costumers best and can play a meaningful role in providing accurate information. Third, licensed players can also provide a sense of the structure of informality as this sector represents their competition , and can aid Central Banks in elaborating surveys.

Little is known about the extent of informal networks, particularly because few studies exist on this market (Orozco 2003a; Gamage 2003). Moreover, there are few associations or groupings of remitters that maintain some level of communication with Central Bank units. Mexico, El Salvador, Dominican Republic, Colombia and Jamaica are probably the countries where there is a greater sense of the number of players intermediating remittance transfers.

Meeting the challenge of understanding remitters, recipients and their marketplace will enhance the ability of Central Banks to have a more tangible sense of the volumes entering the country. First, Central Banks will be able to strike a balance between the current figures they record and expected amounts. Second, Central Banks will be able to identify policy options regarding regulatory and costumer rights issues affecting recipients and competitors. The table and charts below show the extent to which there exist different intermediaries in the industry, within which there are more than 100 companies competing in Latin America and the Caribbean (a list is provided in the appendix). The tables and charts also show the percent of people who receive or send remittances using means other than licensed businesses.

Using the available data, the reported average informality among recipients is 12% and 17% for senders. The data for recipients do not take into account countries like Haiti, Guyana and Nicaragua, where there is greater incidence of informality; partly due to intraregional flows where less regulatory controls exist.

Table 3: LAC Recipient: How do you normally receive money from your relative?

	Mexico	Guatemala	Honduras	El Salvador	Ecuador	Brazil
MTO	47.00%	79.30%	64.00%	47.30%	67.60%	
Bank as MTO	44.10%	6.60%	17.70%	34.00%	16.30%	93.80%
Money Order		1.20%	1.80%			
Informal	7.90%	8.70%	14.60%	18.30%	13.90%	4.70%

Source: Multilateral Investment Fund, survey of remittance recipients.

Figure 1: LAC immigrant sender from the U.S. and Japan (for Brazilians): sending methods

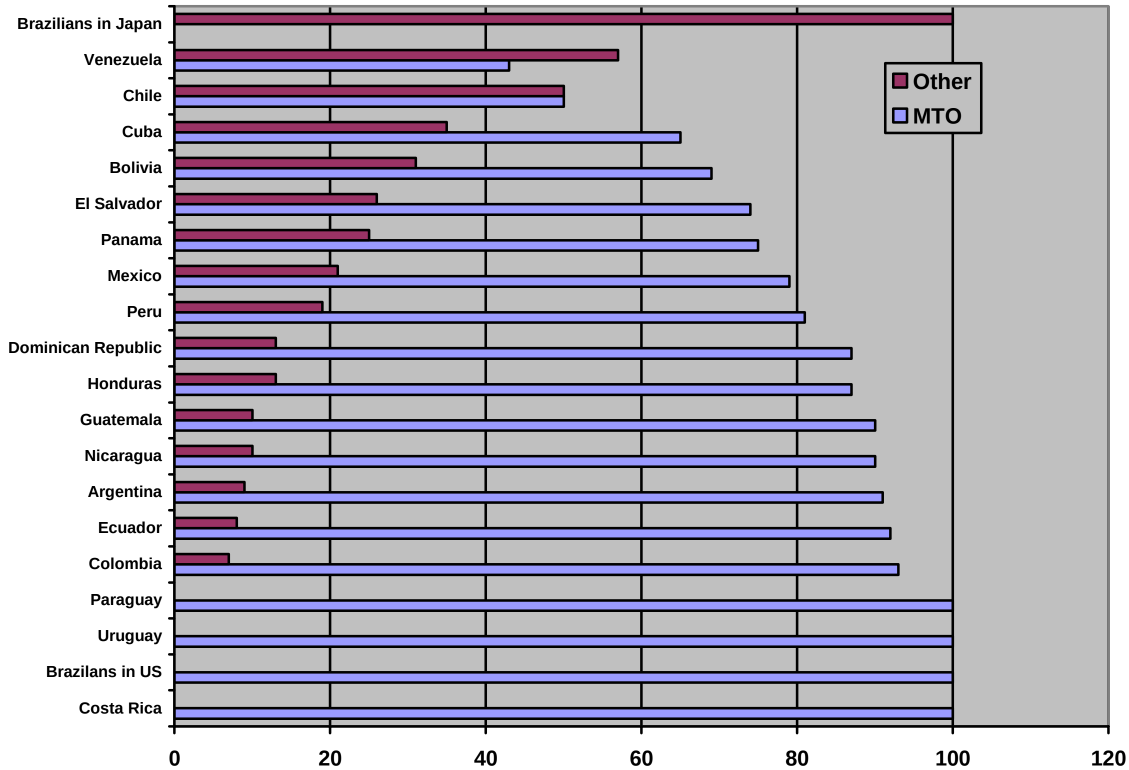
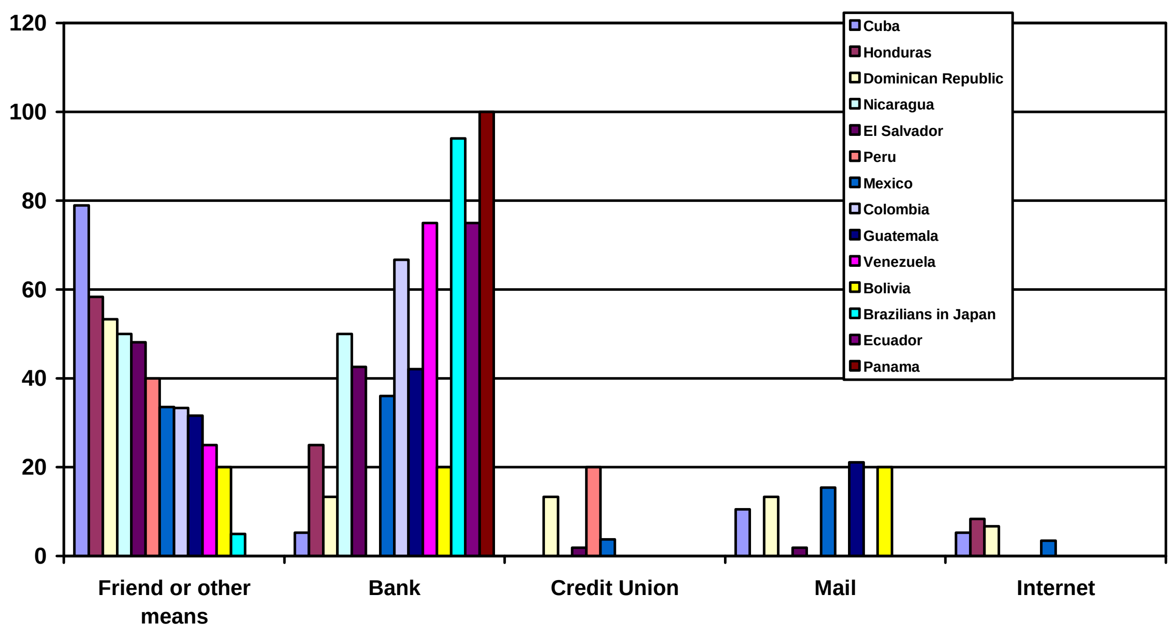


Figure 2: Use of other sending methods different from MTOs (%)



c) Enforcing data gathering

Another difficulty with measurement is that many countries do not have an enforcement mandate or the capability to require licensed companies to provide their data for statistical purposes. In other cases, the normative framework governing transfers pays attention to issues related to money laundering and neglects to address other kinds of transactions. In most cases, most money transfer companies only provide reports for transactions exceeding US$3,000. Western Union and MoneyGram are among the few companies that report their figures to Central Bank authorities everywhere. Payers or agents of a money transfer company with which they have a contract to operate in the remittance receiving country may be fully registered but does not send records to the Central Bank or other regulating authority

An illustrative example is the Nicaraguan case; Central Bank officials acknowledge that the flows they register represent only a fraction of what is probably entering the country (Orozco 2003b). In 2001, the Central Bank of Nicaragua reported information from fewer than fifteen money transmitter companies showing a total flow of $200 million, but then estimated a total flow of $376 million for that year. When official data and company data is compared the numbers may be greater.

For example, applying the official figures, Western Union's share in this market comes to 35 percent. However, Western Union officials suggest that in reality their share is no greater than 20 percent, because they face a competitive market made up of small retail payers, many of which are informal. With at least 700,000 Nicaraguans living abroad, sending between $70 and $150 from the United States, Costa Rica and other countries such as Honduras, Canada and Mexico, the actual numbers exceed $600 million.

By 2004 Central Bank officials had improved their reporting procedures significantly by collecting more information from licensed businesses and improving their estimates of unlicensed businesses, thus reporting US$520 million. Although the numbers remain below what people would typically remit, there has been considerable improvement. The table below illustrates how remitted amounts may be larger than what is reported. It is conservatively estimated that there are 300,000 adult Nicaraguans in the U.S. and a similar number in Costa Rica, plus an additional 100,000 spread in different countries, particularly in Honduras.[7] Of this number, survey data shows that 70% say they remit. Using survey figures or actual amounts reported by money transfer companies and their remitting frequency, the estimated volume is US$600 million. These estimates do not take into account averages and frequencies sent via informal channels from the U.S., but the amounts may serve as approximations.

Table 4: Minimum estimate of remittance transfers to Nicaragua

Country of residence	Nicaraguan Immigrant population	Percent remitting regularly*	Average remitted	Frequency remitting	Estimated total
United States	300,000	67%	150	12	361800000
Costa Rica	300,000	70%	70	12	176400000
Other	100,000	70%	70	12	58800000

Source: US Census Bureau 2000, Mumford Institute, (Orozco 2003), MIF-IADB Survey of remittance senders 2004, NMTA, Manuel Orozco survey of senders in Costa Rica. Immigrants were asked whether they sent remittances or not, and if they did, when was the last time. 76% of Nicaraguans said they did send remittances, and 88% of them said they had sent money within the last week or month.

d) Communication

Maintaing regular contact with payers and money transfer companies is another critical challenge. Often statistical units or balance of payment divisions are not only unaware of the remittance industry landscape or who the key points of contact are from whom to collect information, but rarely do they keep in regular communication with these groups or share data. Interviews with major companies suggest that data collection could improve significantly if Central Banks stayed maintained greater contact with them. In turn, lack of communication can lead to measurement inaccuracies or underreporting.

Most money transfer companies interviewed view maintaining contact with Central Banks as a positive thing. A senior executive for Vigo Corporation stressed that of all the places where the company operates , the Central Bank of Mexico is the only institution where they have an institutional dialogue. They send reports through the payers, and in turn "the payers know what is sent by VIGO, and report that. The Bank of Mexico takes what VIGO sends them." However, the senior executive expressed that, despite being the third largest

[7] The number of Nicaraguan immigrants may be larger than that. However, for purposes of this report we use official statistics only.

operator in Latin America, no other countries have approached them (interview with Vigo executive).

The level of communication is relevant as it allows governments to make greater sense of how many operations and transfers companies are making. An example of where communication has been lacking can be illustrated in the case of Guyana. Despite the significantly large Guyanese population living abroad (estimated to number more than 250,000 immigrants), it is not easy to get a full estimate of the amount of remittances entering the country. Central Bank statistics often do not coincide with private companies' information regarding their transfers. This situation makes the analysis of the trends and their macroeconomic and household impacts more difficult to assess.

Table 5: Remittances and other transfers to Guyana (millions US$)

	1997	1998	1999	2000	2001
Worker remittances	15	14	20.5	27.3	22.3
Migrant Transfers	3	0.9	1.4	26	32.3
Other Unrequited Transfers	36	44.4	40.8	43.1	37.1
Total	54	59.3	62.7	96.4	91.7

Source: Central Bank of Guyana

According to Central Bank figures, remittances and other migrant transfers (such as deposits into personal accounts) accounted for nearly US$55 million in 2001, up from US$18 million in 1997. Moreover, the Central Bank shows that there were an additional $37 million in other transfers. These three categories add up to ninety million dollars that come into Guyana from immigrants. The Bank defines these categories in the following way:

> "workers remittances would include transfers made by workers who stay in foreign economies for at least one year. These transfers are made by migrants living and working in new economies to residents of the economies in which the migrants formerly resided. Migrant transfers or remittances and receipts to bank accounts abroad would be transfers made by migrants to their bank accounts abroad and not to their families. 'Other unrequited transfers' mean any non-financial transfers. These would include barrels and boxes, etc."

The numbers reported seem relatively low considering the large population of Guyanese living abroad. Minimum annual amounts sent per individual generally equal more than

$1,000. But, more importantly, the average amount a Guyanese immigrant sends from the United States using small licensed businesses is much higher and approximates $165 a month (NMTA). In fact, when money transfer companies and banks are consulted about their participation in the money transfer industry, the results suggest that the amount of remittances is far higher than that officially reported. This situation leaves a question mark as to the real inflow of remittances.[8]

A study conducted by this author in 2002 and 2003 on the marketplace of remittance transfers to Guyana revealed interesting findings (Orozco 2003a and Orozco 2004a). Guyana exhibits two types of money sending groups, in addition to those involved in informal transfers. First, licensed money transfer companies do most of the remittance transfers. One company in particular, Western Union/Grace Kennedy, possibly transfers two thirds of the flows. Second, banks also operate as money transmitters mostly from deposits or as check cashers from immigrants who send checks to relatives. These two institutions represent the type of sender remitting to his or her relatives. In both cases, these businesses also handle remittances sent from Canada. ScotiaBank, for example, receives a significant flow from Canadian deposits. Other companies like Western Union or Laparkan stress that 10% of their remittances to Guyana come from Canada.

Table 6 shows the flows received and distributed by each company studied. Using data provided by the different companies and banks, annual remittances approach ninety million dollars. This amount does not cover the informal sector or the goods remitted in kind ("barrels" or "boxes") which could represent at least 20% of total flows.[2] The table also shows that this is a largely uncompetitive market, with one company significantly transferring nearly three out of every ten remittances and a closer competitor handling almost 20% of the flows.

Table 6: Remittances by Industry Type and Company

Industry Type and Company	Month			Annual Volume	Estimated Market share
	Transactions	Amount sent per individual	Aggregate		

[8] The Central Bank statistics also show that there is an outflow of remittances representing about 50% of what comes into the country.

	Month				
Money Transfer Agencies					
Western Union/Grace Kennedy	20,000	250	$5,000,000	$60,000,000	67%
Laparkan	5,000	250	$1,250,000	$15,000,000	17%
MoneyGram	760	200	$152,000	$1,824,000	2%
National Pride	NA	NA	NA	NA	
Banks					
ScotiaBank	4000	200	$800,000	$9,600,000	11%
GBTI	500	200	$100,000	$1,200,000	1%
NBCI	650	200	$130,000	$1,560,000	2%
Total	30,910		$7,432,000	$89,184,000	

Source: Data compiled by the author from each company's information. Market share is also an estimate by the author based on current data.

What is revealing about these numbers is that the volume reported by one company alone is equal to the total official statistic of annual transfers to Guyana. When officials and company executives were consulted, each argued that their numbers were accurate. However, little or no communication exists among them. For example, Western Union executives argued that they submitted all their reports to the Central Bank, while Central Bank officials stressed that they received much smaller quantities and did not question the extent of their market share or presence. The problem is not whether anyone was at fault, but rather that the recording does not seem to reflect what is actually going into the country, partly because government agents do not maintain contact with companies about their operations.

e) Appropriate methodologies

International experts on payment systems recognize that implementing appropriate methodologies to measure remittances is another significant challenge. Although manuals and training exist, the efficacy and extent of full implementation of methodologies makes it difficult to measure the money migrants send. First, there are no common methodologies and limited information sharing. Second, training is contingent on the relatively limited experience experts have had in this area.

In the first case, for example, Reinke stresses that countries often follow "completely different approaches." Some use transactions from banks and exchange bureaus, others combine this information with household surveys data to model a group's propensity to remit, and others use macroeconomic modeling (Reinke). This situation creates an environment of limited knowledge as to how to accurately measure flows. There is no well established standard.

For example, countries like Mexico, El Salvador and the Dominican Republic use reports from money transfer companies, banks and household surveys in order to analyze flows and estimate volume. These countries in fact have been able to properly measure the volumes, predominantly from licensed companies. The United States primarily uses census and survey data to estimate propensities to remit (Mann, 2005). The problem with U.S. estimates is that the use of census data limits the prediction size of the number of remitters, and it has been found that there exists undercount of at least 30%. In turn, reported results are significantly different.

Quinn thus argues that the main challenge of remittances "is not in the definition, but in the methodology" and what one needs is guidance about how to implement or operationalize the definition of remittances (Quinn).

f) Political will

A final but no less important challenge in measuring remittances refers to the political will of institutions – both national and international - in setting guidelines, standards and resources for improving knowledge of this trend. While everyone agrees that Central Bank officials are generally well trained and educated, the problem is often their limited knowledge of the world of international money transfers, as well as the limited support government officials give them to improve their capacities. De Luna Martinez, for example, expresses that the problem is not the level of education, but "from an institutional point of view, there has been little priority to have good statistics, partly because people have been dedicated to measuring other factor such as foreign investment."

Another official stressed the matter more bluntly, "nobody feels they are doing it right. . . that's why no one wants to come to the table." Thus, the problem is not just one of lacking resources, but also of exercising "group effort and ability to commit the time to work on this." A major problem concerning the lack of institutional decision-making to strengthen the appropriate measurement of remittances is not only having to deal with data inaccuracy, particularly in terms of identifying and estimating the extent of informality. But also of issues is that governments have less ability to identify the link between remittances and macroeconomic performance, and in turn implement appropriate economic policies that can leverage remittances for growth and development. Having a relatively accurate measure of how much money goes into a country will permit authorities and others to conduct micro and macro economic analysis of remittance flows that offer cues as to the extent to which remittances are affected by macroeconomic indicators, or have an effect on economic growth.

IV. Solutions to measuring remittance transfers

This section attempts to identify or suggest some solutions to the constraints highlighted above in Section III, largely based on discussions with the array of players involved in the remittance transfer marketplace – from both the public and private spheres. Proposed solutions have been outlined here in three broad categories: a) Improving / recognizing the definition of remittances, b) Reconciling methodology and data compilation through technical assistance, and c) Coordinated efforts with governments, MTOs and migrant groups.

a) Improving / recognizing definition

An improvement in the definition of remittances will have to be one that reflects the reality of migration within regional and global contexts. Defining remittances therefore will be contingent to how transnational migration operates in Latin America, which in some cases is different from how it operates in South East Asia or Africa.

However, the critical understanding of remittances will need to first consider an immigrant and its beneficiary as the unit of analysis, regardless of the immigrant's status or length of time residing abroad or the kind of beneficiary (spouse, parents, siblings, friends or the individual himself/herself). The second attribute to consider is the level of commitment the remitter has with the family. For an immigrant's financial relationship to qualify as a remittance, the transfer must show periodicity and contact with family members, including the ***economic needs*** of the migrant himself/herself. A third consideration is the purpose of the transaction. Transactions that are intended for importing goods or services should not qualify as remittances. But transactions that serve the purpose of sustaining the earnings of the family household are indeed remittances.

The definition of remittances has historically relied on national balance of payment concepts associated with migratory and labor movements with a model of residence in mind. This approach has been problematic because different countries define migrants and residents differently. Furthermore, such a definition may fail to capture the transaction behavior of undocumented migrants and workers (De Luna Martinez). Thus, forthcoming revisions to the IMF's Balance of Payments Manual in which the traditional concept of migrant is removed – as recommended to and accepted by the AEG – is a positive step. At the same time the definition needs to recognize the realism of the possible, as an IMF official pointed, "realistically, we will not get all the data, however, we still must work towards a universally accepted definition of 'remittances'" (Reinke). To that end, a US Treasury official noted, the objective should be to "encourage consensus and the use of a broader definition." (Quinn)

b) Reconciling methodology and data compilation through technical assistance

Technical assistance is critical to establish common methodologies that operationalize family remittances. Such assistance can occur in coordination with current efforts to improve remittance measurement, such as that of the G-7 international working group. In turn, these initiatives will help prevent misconceptions and measurement problems. Assistance will include training in conducting and administering international surveys on money transfers[9], analyzing migration patterns, understanding the various mechanisms employed to make transfers effective, and maintaining shared datasets with remittance intermediaries and other institutions.

This can be done in the context of standard training where the IMF might prepare a technical session for BOP compilers and touch briefly on remittances as one aspect of that.

[9] Adopting surveys is recommended as a minimum methodology, see Adams (2005).

Better still would be an additional session on how remittances pull different components of the BOP together, weaknesses associated with different line items and methodologies, and so on.

All of the MTOs interviewed for this report cited studies they had reviewed, which included highly inaccurate data. Four MTO officials from three different companies claimed that if the numbers presently reported in these studies were correct, their company would have over 110% to 200% share of the corridor or market referenced (Hausman). And as one MTO executive stated, compiling the data is "as much about counting [all the transfers taking place] as it is about recognizing growth [in the transfer marketplace]," which are two separate aspects (Knoll).

Another MTO executive considers the remittance transfer marketplace to be well regulated, which has contributed toward improving due diligence among private sector players, and increasing parity among regulators and data collectors both domestically (in the United States) and internationally (Pereira). Increasingly, countries want to comply with international recommendation, and are able to employ these as justification for requiring registration and licensing (De Luna Martinez).

The MTOs interviewed for this study all report numbers to the country authorities in which the company is registered, and it primarily falls within the realm of Central Bank authorities to monitor and tabulate remittances flows. Some MTOs worry about protecting their data, and one suggestion offered is the establishment of a national clearinghouse where data could be reported anonymously.

A successful methodology is one that is uniform and involves various methods of data collection, but that also contains quality controls in the process. Some countries that only rely on survey data or bank reports rarely test the quality of existing surveys d, which one World Bank official considers a "major issue" (De Luna Martinez). Many of those interviewed for this report argue it is better to approach a combination technique based on estimations, surveys (including surveys of wire transfer and financial institutions), households, and voluntary reporting on remittance service providers.

Bringing everyone onto the same page is a major thrust of the international working group on remittances.[10] According to the IMF, while meta data compilation practices are well underway, there needs to be more guidance provided on the remittances dimension, and the organization expects to see significant progress achieved within the next one to two years. However, one of the major obstacles is what the IMF and others interviewed here perceive as a lack of commitment on the part of regulators to fully incorporate a remittances methodology into their data compilation efforts. Part of this might be attributed to a lack of resources – time and energy available to dedicate to such an endeavor – although multilateral organizations such as the IMF and World Bank aim to position themselves in order to facilitate technical assistance and guidance (De Luna Martinez, Reinke, Quinn).

c) Coordinated efforts with governments, MTOs and migrant groups

In order to avoid data compilation consistency gaps that cross national boundaries, it is critical to foster coordination and cooperation between those in the public and private spheres – both domestically and abroad.

In terms of collaboration between the public and private sector, MTO direct dialogue with the Central Banks, and data compilation efforts can be coordinated through a company's payers. (Timm). Quisqueyana, an MTO operating in the Dominican Republic and other countries in Latin America, also cites a productive relationship with regulatory authorities in the Dominican Republic, where the company is consulted on a regular basis concerning changes that might affect their business operations. This participatory environment has helped foster broad consensus between both private and public sectors on what constitutes a remittances, how to account for it, and how to regulate it (Armenteros).

A first step is for finance ministries to agree to establish monitoring remittances as a primary goal, which collectively would give them more weight when appealing to statistical agencies, multilateral development funds, for resources and other types of support (Quinn).

[10] For a full description of the working group visit the World Bank's website (http://www.worldbank.org/data/remittances.html), and the IOM's 2005 report in Chapter 9 and its discussion of GATS Mode 4. (http://www.iom.int/).

Also, greater collaboration between sending and receiving countries might be a useful step. Remittance sending countries might possess "cleaner" data and could provide valuable insights into data compilation and regulatory approaches (Armenteros, De Luna Martinez, Quinn, Reinke).

Furthermore, it would be useful to involve the remitters themselves, through collaboration and/or partnership with migrant groups, organization, and communities. Many of these are already heavily vested in advocating for more efficient, safe and affordable remittance transfer mechanisms and markets, but are also involved in seeking various ways to leverage these funds for development in their home communities (Reinke).

V. A proposed method to measure remittances

Throughout this report we have sought to point at the challenges found in measuring remittances. The report was based on interviews of international experts and analysis of existing literature pointing to these issues. This section offers alternative methods to measure remittance transfers and that assume the recommendations highlighted above as mechanisms to address the challenges identified in section III.

a) Surveys in the remittance sending country using money transfer estimates and census data

The United States is the primary source of remittances to Latin America's over thirty billion dollar flow. These disbursements originate from different states in the nation, from California and Texas, to New York, Massachusetts and Wisconsin and North Carolina.

To estimate how much money flow from the U.S., a methodology is employed and combines three primary sources: census data (including revised estimates by independent entities), national survey data, and money transfer company data. First, U.S. Census data is applied to determine the size and location of the Latino foreign population in the continental United States. This data, although undercounting immigrants, allows for identifying the location of Latinos in every state and main city in the country. Other estimates, such as those made by the Mumford Institute, can be employed to improve the size of the population.

Second, random surveys will be conducted nationwide to determine what percentage of its population sends money. The surveys should be administered proportionally to the predominant nationality of the group living in that city. For example, the top five LAC groups in Los Angeles are Mexicans, Salvadorans, Guatemalans, Nicaraguans and Peruvians. In New York, the top LAC groups are Dominicans, Jamaicans, Mexicans, Guyanese, Ecuadorians, and Colombians.

These surveys should contain at least eight questions pertaining to migration and remittances: foreign born status, country of origin, extent of sending remittances, method of sending, quantity, frequency and duration living and sending, as well as demographics, including income. This collected data provides an overall estimate of the percent of Latinos sending remittances in most parts of the United States, but other questions can contribute to analyzing factors that define the propensity to send money to relatives. It is very important to bear in mind that using this procedure looks at individual rather than household remittance sending. More than one immigrant in a household sends remittances, therefore using household figures to input propensity to send will be misleading.

Third, data provided by money transfer businesses will provide an accurate display of the mode, median and average amount sent from the various cities and applied to that population percentage. The resulting equation is as follows:

$$R_{ij} = I_{ij} * IS_{ij} * Q_{ij} * F_{ij;};$$

where

I_{ij} = immigrant from i country (ie, Mexico) in j state (ie, California)
IS_{ij} = percent of immigrant from i country that sends money
Q_{ij} = amount immigrant from i country sends from that state
F_{ij} = frequency immigrant sends from that state

The source data for those numbers will come from the Census estimates, surveys and money transfer data. This information will also allow countries to estimate the propensity to remit by cohorts, including length of stay, gender, education, location, or extent of home country contact. The table below displays the ratio between amount remitted and income (generally known as the propensity to remit) among remittance sending immigrants in the United States. This type of information will improve the predictive impact of remittances volumes.

Table 7: Basic propensity to remit (ratio between amount sent and income)

Country of origin	Mean ratio	Standard Deviation	N
Colombia	.1357	.09665	204
Cuba	.0743	.07022	150
Ecuador	.3718	.29328	96
El Salvador	.1550	.13706	372
Guatemala	.3041	.25154	94
Guyana	.1434	.21995	174
Honduras	.1080	.07713	67
Mexico	.2890	.25427	440
Nicaragua	.1128	.08273	135
Dom. Rep.	.1246	.11146	149
Bolivia	.1154	.07710	68
Jamaica	.2169	.53953	180
Total	.1883	.24774	2129

Source: Orozco, Manuel. Surveys conducted by the author.

Costs--Following this procedure may represent an additional cost to other activities performed by Central Banks. A nationwide survey in the United States could cost US$30,000 to US$50,000, plus the costs of conducting surveys in other countries. An effective alternative lies in contracting CEMLA to carry out surveys for all member countries and split costs. Combined total costs may not exceed US$250,000, a situation that could reduce costs dramatically, and this would basically be the most significant cost incurred, in addition to a possible part time staff dedicated to analyzing the statistical trends of remittance transfers. Remittance transfer companies would not object to preparing monthly statistical reports of the transfers immigrants make. Therefore, with an improved definition, an appropriate methodology and well-established lines of communication between all players, measurement could be better guaranteed.

b) Recipient country surveys: learning from the IOM methodologies in Guatemala and Colombia

In addition to conducting surveys in the sending areas, is important to conduct person-to-person surveys in Latin America and the Caribbean. The procedure should rely on better-structured household surveys, similar to those being elaborated by the Central Bank.

However, survey procedures should also take advantage of money transfer company data. This data has the advantage of providing a relatively accurate picture of the geographic distribution and volume of flows. In countries where there is less informality, relying on companies that handle 80% of the market share (such as in Mexico, Guatemala, El Salvador, Dominican Republic, Jamaica), will offer very accurate data results.

However, it is very important to also rely on the work that institutions with expertise in this area have been doing. Of particular emphasis is the work of the International Migration Organization and its efforts in Guatemala and Colombia. In both countries, the IOM has conducted nationwide surveys adopting comprehensive methodologies that capture the volume transferred.[11] The survey in Colombia exhibits very important lessons in data collection. The IOM mission in Colombia worked with the Departamento Administrativo Nacional de Estadística (DANE) to conduct two surveys, one in the metropolitan area and another with money transfer companies grouped under the Asociación de Instituciones Cambiarias de Colombia (ASOCAMBIARIA). The sample and survey design are among the most elaborate projects carried out in identifying remittance recipients and volumes received. The project in itself suggests the relevance and possibility of conducting joint work with various players.[12]

c) Understanding the transnational nature of migration and its effect on the home country

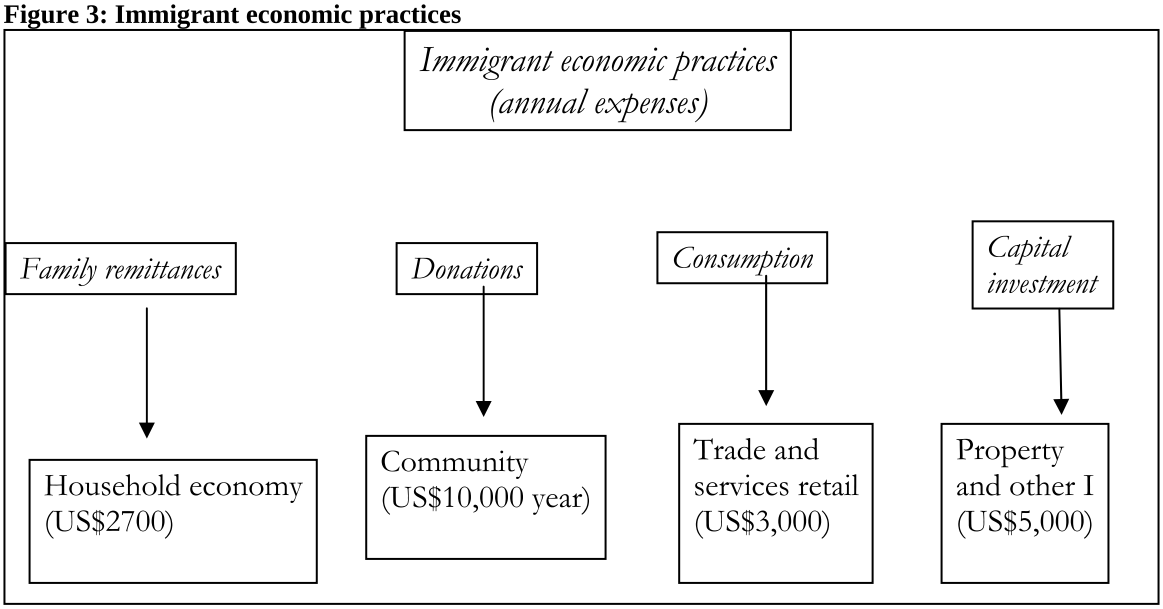
Any consideration about measuring the flows of money sent by immigrants will require a categorization of the purposes of these flows (which in turn will help distinguish remittances from other economic practices), as well as an understanding of the global context in which migration is taking place. Within the context of globalization, one of the resulting outcomes of continued migration is the formation of transnational families and communities; the latter defined as groups or families that maintain relations and connections that include home and

[11] To look at the methodology and comprehensive analysis employed by the IOM mission in Guatemala follow this site: http://www.oim.org.gt/taller_remesas_2004.htm
[12] The methodology employed for this comprehensive survey is found at IOM's mission in Colombia, http://www.oim.org.co/anexos/documentos/publicaciones/libro87.pdf.

host societies.[13] These relations and contacts refer to the *needs and preferences that an individual or group attaches to their life*. The economic context of a typical family with bi-national or transnational obligations include the sending of remittances, keeping in touch through telephone calls and visits home or from relatives, buying home country goods or property, and so on. These are relationships that, in the transnational context, represent extended household-to-household micro-patterns.

In turn however, these patterns generate significant macroeconomic impacts on the economies of the receiving countries. Therefore, in practical terms, a typical immigrant's economic linkage with the home country extends to at least four practices that involve spending or investment: *family remittance transfers, demand of goods and services—such as telecommunication, consumer goods or travel—capital investment and charitable donations to philanthropic organizations raising funds for the home country's community* (see box below). Part of the work for Central Banks is to distinguish the range of economic practices immigrants have with their home country, and locate what constitute a remittance or an investment.

Figure 3: Immigrant economic practices



[13] There are a range of definitions, for example one is "groupings of migrants who participate on a routine basis in a field of relationships, practices and norms that include both places of origin and destination" Lozano, Monica. "Transnational Migrant Communities and Mexican Migration to the United States," co-authored with Bryan Roberts and Reanne Frank, *Ethnic and Racial Studies* 22(2):238-266.

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