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A Series on Immigration

Remittances: International Payments by Migrants

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Preface

Foreign-born people now make up 12 percent of the population of the United States—the highest share since about 1930. The rise in the number of recently arrived residents—nearly half of the immigrants in the United States have arrived since 1990—has raised questions about the potential effects of immigration on labor markets and economic performance in general. Immigration increases the pressures for federal, state, and local government spending. However, immigrants also contribute to the economy and pay taxes. A major question is whether immigration has the potential to lessen the strain on the federal budget as the baby-boom generation retires. Another important question is how immigration to the United States affects the countries from which the immigrants come.

This paper, requested by the Chairman and Ranking Member of the Senate Finance Committee, is the second of several reports by the Congressional Budget Office (CBO) presenting the facts and research on immigration to help inform the agency's projections of the federal budget and the economy. The paper focuses on remittances—payments sent by immigrant workers back to their home countries. It discusses how those payments are classified and estimated, how remittances from the United States compare with other international financial flows (such as exports or foreign direct investment) and with remittances from other countries, what channels are used to send remittances, and what effects remittances have on the United States and recipient countries. In keeping with CBO's mandate to provide objective, nonpartisan analysis, this paper makes no recommendations.

Douglas Hamilton is coordinating CBO's series of reports on immigration. Robert Shackleton wrote this paper with research assistance from Amrita Palriwala and Adam Gordon. Robert Dennis, Arlene Holen, Noah Meyerson, Benjamin Page, John Peterson, Monisha Primlani, Elizabeth Robinson, and Ralph Smith provided comments on early drafts of the paper, as did Michael Mann of the Bureau of Economic Analysis and Roberto Suro of the Pew Hispanic Center. (The assistance of external reviewers implies no responsibility for the final product, which rests solely with CBO.)

Janey Cohen edited the paper, and Loretta Lettner proofread it. Maureen Costantino prepared the paper for publication and designed the cover, Lenny Skutnik printed the initial copies, and Annette Kalicki and Simone Thomas produced the electronic version for CBO's Web site (www.cbo.gov).

Douglas Holtz-Eakin
Director

May 2005

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Summary

As one of the most important destinations of world immigration, the United States has emerged as the single largest source of reported remittances—payments sent by immigrant workers to their home countries. Indeed, the opportunity to send remittances home is one of the important motivations for immigration. Remittances sent from the United States grew sixfold from $4.1 billion in 1981 to $25.5 billion in 2003, when they accounted for about one-third of measured global remittances. Although remittances are very small relative to the U.S. economy—about 0.2 percent of gross domestic product—they are now larger than U.S. official development assistance. Remittances have become a significant source of funds for some of the developing countries that receive them; for dozens of countries, they exceed official foreign aid or foreign investment as sources of external funds. Remittances from the United States are sent largely by low-income migrants to help finance their families' living expenses at home. In addition, some recipients use remittances for investment purposes, contributing to development in at least some of the countries that send migrants to the United States. Policies that affect migration to the United States are thus also likely to affect remittance flows and the economies of recipient countries.

Introduction

Immigrants seeking economic opportunities often send money—referred to as remittances—home to their families. This paper reviews the available data on remittances from immigrants in the United States. It describes the population of remittance senders, the motivations that lead workers to send remittances and the channels that they use, and the economic effects of remittances in the United States and recipient countries. An appendix to the paper places the U.S. experience in perspective by describing global remittances and related international financial flows.

The term "remittance" is used in different ways. Under the definition currently in use by the International Monetary Fund (IMF)—which provides the most widely used standard for the presentation of international statistics—remittances are international transfers of funds sent by migrant workers from the country where they are working to people (typically family members) in the country from which they came (see International Monetary Fund, 1993, p. 75). According to the IMF, a migrant is a person who comes to a country and stays, or intends to stay, for a year or more. Typically, remittances are frequent small payments made through wire transfers or a variety of informal channels—sometimes even carried by hand. The Bureau of Economic Analysis (BEA), which compiles the United States' national and international economic accounts, classifies, estimates, and reports workers' remittances under the heading of "current transfers" in the current account of the U.S. balance-of-payments (BOP) statistics. (See the appendix for an overview of the classification of remittances and related flows.)

Some analysts adopt a wider definition of remittances that may provide a broader view of financial transfers by people working outside of their native countries (see Ratha, 2003). For example, the definition could include migrants' capital transfers, which are assets that a migrant brings into or takes out of the country in the process of migration. Such transfers are recorded as capital transfers in the capital account of the BOP statistics. The definition also could include compensation of employees who are not considered residents. Although such workers consume some of that compensation in the host country (or use it to pay taxes there), they also return a significant but unmeasured portion of it to their home countries.

Estimates of Remittances and Related Flows from and to the United States

The Bureau of Economic Analysis does not regularly collect direct data on flows of workers' remittances into or out of the United States. Instead, BEA estimates the value of remittance outflows using a model based on estimates of the foreign-born population in the United States, their average family income, and their propensity to remit a portion of that income, taking into account the effect of national origin, family status, age, and length of stay in the United States.[1] The propensities to remit are based on surveys of legal aliens conducted around 1990. The current methodology was introduced in the early 1990s. That method has been used to calculate estimates back to 1981.

BEA estimates that workers' remittances from the United States grew sixfold from $4.1 billion in 1981 to $25.5 billion in 2003, and their share of gross domestic product (GDP) almost doubled from about 0.13 percent to about 0.22 percent over the same period (see Table 1). In constant-dollar terms, estimated outflows of workers' remittances grew at an average annual rate of about 5.6 percent—much more rapidly than the foreign-born population, which averaged 3.8 percent growth per year. That rapid growth has made the United States an increasingly important source of remittances on a global scale: the U.S. share of global reported outflows of remittances grew from 17 percent in 1981 to nearly 35 percent in 2003.[2] BEA also estimates but does not regularly publish separate data for emigrants' remittances to the United States; at $393 million per year in 2002, emigrants' remittances were much smaller than those of immigrants (Bach, 2003).

The United States also estimates capital transfers by immigrants and emigrants but does not regularly report the data independently. Data available for 2002 indicate that immigrants to the United States that year brought about $1.1 billion of capital with them, while emigrants leaving took about $2.2 billion with them. Native-born Americans leaving the country transferred about $0.7 billion; foreign-born emigrants transferred the remaining $1.5 billion (Bach, 2003). Migrants' transfers into the United States accounted for about 10 percent of all reported inflows of remittances in 2002, and transfers out accounted for about 23 percent of all reported outflows.[3]

Compensation of foreign employees working in the United States for less than one year grew from $550 million in 1980 to $8.5 billion in 2003, measured in current dollars, while inflows from U.S. employees working overseas for less than one year grew from $80 million in 1980 to $3.0 billion in 2003.[4] Those flows accounted for more than 16 percent of total global reported outflows and about 5.3 percent of inflows in 2003.

Taking all three flows together—remittances, migrants' capital, and compensation of employees—reported outflows from the United States in 2002 (the most recent year for which all three are available) amounted to $33.7 billion (about 26 percent of reported outflows from all countries), while inflows amounted to $6.6 billion (about 3 percent of the global total).

BEA does not report the national or regional origin of remittance inflows or the destination of remittance outflows from the United States. For a number of regions and a few countries, BEA reports an aggregate called "private remittances and other transfers" that includes net outflows (that is, outflows minus inflows) of remittances as well as other current private transfers, such as taxes and payments by educational, charitable, medical, philanthropic, and religious institutions.

It may be useful to note, however, that the nation that is probably the single most important destination of U.S. remittance outflows, Mexico, reported inflows of workers' remittances (overwhelmingly, but not exclusively, from the United States) of $8.9 billion in 2001, $9.8 billion in 2002, $13.4 billion in 2003, and $16.6 billion in 2004. Those values are substantially larger than BEA's estimates of the total net flow of private remittances and

1. The estimation procedure is discussed in detail in Murad (1992).

2. The International Monetary Fund and World Bank compile estimates of remittances for nearly all countries from submissions by each country's government. Those estimates are discussed in the appendix of this paper.

3. BEA does not report migrants' capital transfers as separate items to the International Monetary Fund for inclusion in the IMF's international compilation of balance-of-payments statistics. Instead, they are included in total inflows and outflows of nonfinancial capital.

4. Those "inflows" include compensation of U.S. employees of international organizations such as the IMF and the World Bank, as well as U.S. employees who work for foreign embassies and consulates in the United States, even though those employees typically work for more than one year.

Table 1.

Remittances and Related International Flows from and to the United States

(Billions of current dollars)

	1981	1990	1995	1996	1997	1998	1999	2000	2001	2002	2003
Outflows											
Workers' Remittances	4.1	8.4	11.8	12.9	14.1	15.6	18.3	20.5	21.5	23.1	25.5
Compensation of Employees	n.a.	3.5	6.3	6.3	6.7	7.0	8.0	7.5	8.1	8.4	8.5
Total	n.a.	11.9	18.1	19.2	20.8	22.6	26.2	28.1	29.5	31.5	34.1
Inflows											
Workers' Remittances	n.a.	n.a.	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	n.a.
Compensation of Employees	n.a.	1.2	2.2	2.2	2.3	2.4	2.7	2.8	2.9	2.9	3.0
Total	n.a.	n.a.	2.4	2.4	2.6	2.7	3.1	3.2	3.3	3.3	n.a.
Net Outflows (Outflows Minus Inflows)											
Workers' Remittances	n.a.	n.a.	11.6	12.6	13.8	15.3	17.9	20.2	21.1	22.8	n.a.
Compensation of Employees	n.a.	2.3	4.1	4.1	4.4	4.6	5.2	4.7	5.2	5.4	5.5
Total	n.a.	n.a.	15.7	16.7	18.2	19.8	23.1	24.9	26.2	28.2	n.a.
Memorandum (Flows to Developing Countries Only):											
Official Development Assistance and Aid[a]	5.8	11.7	8.6	11.1	9.4	11.5	12.7	12.5	13.0	15.6	17.7
Other Official Flows[a]	0.9	-0.5	1.5	1.1	0.3	0.6	4.7	1.4	0.5	0.2	0.8
Total Net Official Flows to Developing Countries	**6.7**	**11.3**	**10.1**	**12.2**	**9.7**	**12.1**	**17.4**	**13.8**	**13.5**	**15.8**	**18.5**
Net Investment plus Export Credits[b]	18.7	-2.4	37.4	45.7	80.0	46.5	48.4	27.7	41.2	9.4	51.0
Net Grants by Nongovernmental Organizations[b]	1.0	2.5	2.8	2.8	3.6	4.3	6.1	6.4	7.6	8.9	10.6
Total Net Private Flows to Developing Countries	**19.7**	**0.1**	**40.2**	**48.5**	**83.6**	**50.9**	**54.5**	**34.1**	**48.8**	**18.2**	**61.6**

Source: Congressional Budget Office based on data from the Bureau of Economic Analysis and the Organization for Economic Cooperation and Development.

Notes: Totals for outflows, inflows, and net outflows do not include transfers of migrants' capital, which are not reported by the Bureau of Economic Analysis (BEA) on a regular basis. In 2002, BEA estimated that outflows of migrants' capital were valued at $2.2 billion, inflows at $1.1 billion, and net outflows at $1.1 billion.

n.a. = not available.

a. As reported by the U.S. Department of State to the Development Assistance Committee (DAC) of the Organization for Economic Cooperation and Development (OECD). Official development assistance (ODA) comprises grants and loans (net of repayments of principal) that meet the DAC's definition of ODA and are made to countries and territories in part I of the DAC list of aid recipients. Official aid comprises such payments to countries in part II of the list (generally countries of the former Soviet bloc).

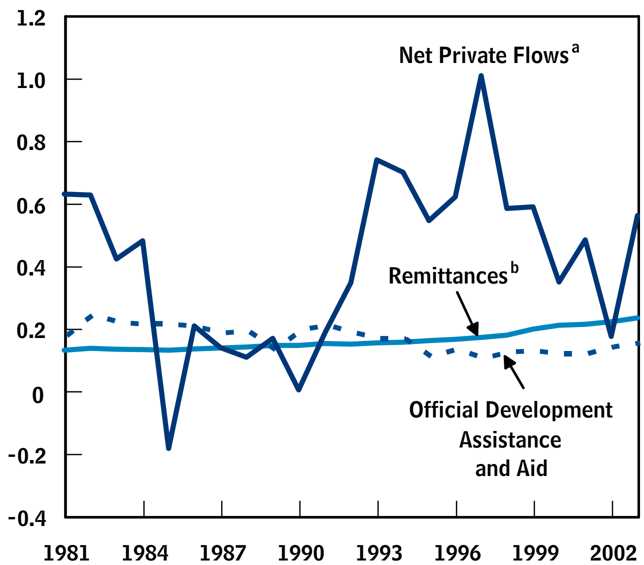
b. As reported by the U.S. Department of State to the DAC. Net investment includes foreign direct investment and portfolio investment.

other transfers (not just workers' remittances) to Mexico of $6.4 billion in 2002 and $7.0 billion in 2003. The apparent discrepancy between U.S. and Mexican statistics could stem from either or a combination of two factors. BEA may be underestimating remittance outflows because it has not yet incorporated the results from the most recent decennial census into its estimate of the foreign-born population in the United States. That revision will probably increase BEA's estimate of remittances. Conversely, the Mexican statistics may overestimate remittances. For instance, Mexican authorities may record some flows associated with compensation of employees within their estimates of workers' remittances. However, the extent of any overestimate or underestimate is difficult to judge on the basis of data currently available.

Figure 1.

Remittances and Other International Flows from the United States to Developing Countries, 1981 to 2003

(Percentage of gross domestic product)



Sources: Remittance outflows as reported by the Bureau of Economic Analysis. Official development assistance and aid as reported by the U.S. Department of State to the Development Assistance Committee of the Organization for Economic Cooperation and Development.

a. Net private flows include net foreign direct investment, portfolio investment, export credits, and grants from nongovernmental organizations.

b. To developed and developing countries.

In recent years, some observers have cited the potential for remittances to complement or even replace direct investment and foreign aid as a source of development finance (see, for example, Adelman, 2003). They argue that remittance flows are, in effect, a form of aid: rather than sending aid to a developing country, a developed country can allow migrants from that country to work and send money home. Those observers also point out that remittances do not directly burden a host country's taxpayers in the same way that tax-financed official aid does; that they are less costly to get to the people who need them, compared with aid that passes through the sending and receiving countries' bureaucracies; and that they have tended to be more stable during business cycles than investment or aid (see Addy and others, 2003; Kapur, 2003; and Keely and Tran, 1989). Other observers note that to the extent that migrant workers compete with domestic workers, and to the extent that such competition lowers domestic wages, the cost of assistance in the form of remittances is borne by domestic workers.

Remittances are very small relative to the U.S. economy, equivalent to just over 0.2 percent of GDP. They are typically smaller than net private asset flows and net grants by nongovernmental organizations to developing countries, although they exceeded such flows in 2002 (see Figure 1).[5] Nevertheless, at more than $23.1 billion in 2002, outflows of remittances from the United States greatly exceeded the $15.6 billion that the U.S. government provided in official development assistance and development aid to developing countries.[6] Moreover, to the extent that remittance flows into those countries are underreported, the gap between remittances and other sources of external finance to developing countries may be larger than the official statistics indicate.

Who Sends Remittances and Why?

Nearly all of the information about remittance senders in the United States has to do with migrants from Latin America. Relatively little reliable information is available about remittance senders from other regions.[7] However, the fact that more than half of the foreign-born population in the United States is from Latin America suggests that a large share of remittances from the United States goes to those countries (see Congressional Budget Office, 2004).

5. Those private flows amounted to $18.2 billion in 2002. That total included $34.3 billion of net foreign direct investment from the United States to developing countries, $25.6 billion of net inflows of portfolio (or financial) investment from those countries to the United States, and nearly $8.9 billion in net grants by nongovernmental organizations. Those private flows constituted 24.4 percent of all such flows from OECD member countries.

6. That value includes $13.3 billion in official development assistance to part I countries—those considered eligible for development assistance by the Development Assistance Committee of the Organization for Economic Cooperation and Development (OECD)—and $2.3 billion in official aid to part II countries—economies in transition, including the nations of the former Soviet bloc and certain advanced developing countries and territories. That funding constituted 24.2 percent of all such funding from OECD member countries.

7. The information in this section is compiled from several studies: Bendixen Associates (2004), DeSipio (2000), Lowell and De la Garza (2000), Menjivar and others (1998), Suro (2003), and Suro and Bendixen (2002).

Table 2.

Estimated Remittances from the United States to Latin America, by State, 2004

State	Millions of Dollars	Percentage of Total
California	9,610	32.0
New York	3,562	11.9
Texas	3,182	10.6
Florida	2,450	8.2
Illinois	1,528	5.1
New Jersey	1,371	4.6
Georgia	947	3.2
North Carolina	833	2.8
Arizona	606	2.0
Virginia	586	2.0
Colorado	544	1.8
Massachusetts	527	1.8
Maryland	500	1.7
Nevada	447	1.5
Washington	353	1.2
Oregon	218	0.7
Michigan	192	0.6
Indiana	190	0.6
Pennsylvania	180	0.6
Utah	164	0.5
Tennessee	162	0.5
Oklahoma	156	0.5
Wisconsin	152	0.5
Alabama	149	0.5
South Carolina	148	0.5
Minnesota	147	0.5
Connecticut	129	0.4
Arkansas	114	0.4
Ohio	108	0.4
Missouri	105	0.3
New Mexico	103	0.3
Idaho	96	0.3
District of Columbia	94	0.3
Kansas	94	0.3
Nebraska	80	0.3
Iowa	69	0.2
Louisiana	61	0.2
Kentucky	53	0.2

Source: Congressional Budget Office based on Bendixen Associates, *State by State Survey of Remittance Senders: U.S. to Latin America (2004).*

Note: Estimates are unavailable for Alaska, Delaware, Hawaii, Maine, Mississippi, Montana, New Hampshire, North Dakota, Rhode Island, South Dakota, Vermont, West Virginia, and Wyoming, but remittances from those states are thought to be relatively small.

One recent survey conducted in early 2004 of Latin American immigrants living in the United States concluded that about 61 percent of all such immigrants (or about 10 million people) were sending home remittances, averaging roughly $3,000 per sender (Bendixen Associates, 2004). As with the migrant population, remittance senders were concentrated in a relatively small number of states. In 2004, nearly 68 percent of all remittances came from five states: California, New York, Texas, Florida, and Illinois (see Table 2 and Figure 2).

The same survey indicates that remittance senders tend to be recently arrived, young, married men with little education, low earnings, and little familiarity with formal banking systems. The majority send home small amounts of money—a few hundred dollars—every month. Studies suggest that immigrants are less likely to send remittances (and more likely to send less money) the longer they stay in the United States. One study found that each year of a migrant's age reduced his likelihood of remitting by about 3 percent, and an additional year of education reduced that likelihood by 7 percent (Lowell and De la Garza, 2000). A migrant household with minor children in the United States was 25 percent less likely to send remittances than one without, whereas a migrant with minor children still living in his native country was more than twice as likely to remit than one without.

What little information is available about remittance senders from other parts of the world suggests that there are significant differences by country of origin. For example, according to one study, immigrants who send remittances from the United States to India send an average amount of about $1,100; the average remittance to Pakistan is about $790, to Bangladesh about $560, to the Philippines about $400, and to Egypt about $300 (Orozco, 2003).

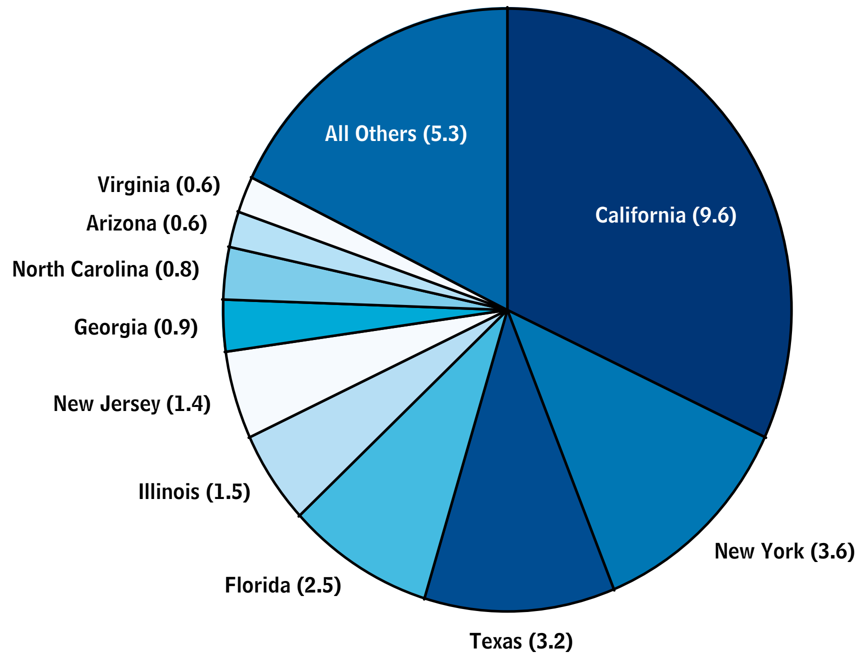
Research on the motivations that drive workers to immigrate and send remittances suggests that a considerable share of all immigration is motivated at least in part by the opportunity to send home remittances and that migrant workers may send remittances for a variety of reasons.[8] Although they may be driven in part by altruism, migrants also appear to be part of family networks that have pooled resources to help the migrant learn skills or get an education, to send the migrant overseas to earn a

8. For reviews of the literature, see Solimano (2003) and Rapoport and Docquier (2003). Useful studies include Chami and others (2003), Docquier and Rapoport (2003), Lucas and Stark (1985), and Roberts and Morris (2003).

Figure 2.

Remittances from the United States to Latin America, by State, 2004

(Billions of dollars)



Source: Congressional Budget Office based on Bendixen Associates, *State by State Survey of Remittance Senders: U.S. to Latin America* (2004).

higher income than he could at home, or to diversify their risks by having a family member working in a different economic environment than the one they face at home. From that perspective, remittances are payments that are part of the informal or implicit contracts that migrants have made with other family members, rather than pure gifts. Instead of being an afterthought, or a side benefit of migration, remittances therefore constitute one of the primary purposes of at least some migration. Some research suggests that migrants may also send remittances in part to signal their reliability and thus enhance their reputation as members of both their home community and the migrant network where they work (see Roberts and Morris, 2003, p. 1252).

Methods and Costs of Sending Remittances

Migrants send money home through a wide range of formal and informal means. Survey responses suggest that the majority of Latin American immigrants who send remittances do so through formal means—postal and other money orders, wire transfers, and banks—regulated by the Treasury Department through the Office of the Comptroller of the Currency, the Financial Crimes Enforcement Network, and the Office of Foreign Assets Control.[9] However, many immigrants send remittances through a variety of informal mechanisms, which were much more prevalent in the past and which continue to dominate the market for remittances to a few countries—Haiti, Cuba, and Nicaragua in particular.[10]

Formal Institutions

Providers impose charges for remittances that typically include both an explicit fee and an exchange rate spread, which together can be quite substantial. The price of sending remittances varies significantly, depending on their origin and destination. The distribution of migrants throughout the United States affects pricing: the cost of

9. Bendixen Associates (2004) and Orozco (2004). No agency or industry systematically collects data on the various remittance products offered or their costs.

10. See Orozco (2004). The markets for remittances to some countries—for instance, Bolivia, Peru, Honduras, and Venezuela—are only beginning to develop significant competition.

sending remittances is lower where there is a larger immigrant community. A number of institutions that offer remittance services cater to migrants from a specific country (Meyers, 1998). The cost of remitting a given amount of money can vary by a factor of more than three, depending on where it is sent. One recent study found that for a remittance of $200, the cost ranged from about 5.4 percent for remittances sent to Ecuador to more than 12.1 percent for remittances sent to Cuba. For the average remittance—around $400 in that study—the cost varied from about 4.4 percent for Mexico to about 12.1 percent for Cuba (see Orozco, 2004; and Suro and Bendixen, 2002).

As the volume of remittances from the United States has grown, the market has attracted new entrants. A decade ago, remittances were often sent by money order, but the market is currently dominated by companies that specialize in wire transfers. In the past few years, banks have begun to compete for remittance business but are hampered by migrants' lack of familiarity with, and distrust of, formal banking institutions—roughly half of all remittance senders to Latin America do not have a bank account (Orozco, 2004). Further, illegal immigrants have concerns about their legal status and documentation. As a result of those issues, banks currently have only a small share—a few percentage points—of the remittance market.

The limited information available from surveys indicates that with the number and range of providers rising rapidly, the price of transferring remittances has dropped very quickly since the late 1990s. According to one survey, the cost of sending a $200 remittance to Mexico fell from as much as 15 percent in the late 1990s to about 8 percent in 2001 and about 7.3 percent in early 2004, and the cost of an average remittance fell to about 4.4 percent (see Orozco, 2004). The range of products is also increasing. Some banks, in an effort to expand their provision of services in immigrant communities, now offer such options as stored-value cards and the possibility of accessing bank accounts in the United States through automatic teller machines (ATMs) in developing countries (see Bair, 2003; and Orozco, 2004).

Informal Money-Transfer Systems

Throughout the world, an estimated $100 billion to $300 billion of payments pass through informal money-transfer systems (also referred to as informal funds transfers) that operate outside of the formal financial sector (Buencamino and Gorunov, 2002). A portion of those payments cross international borders. Informal systems include the *hawala* system found throughout South Asia and the Middle East but also in immigrant communities in the United States (called *hundi* in Pakistan and India), the *fei-ch'ien* system in China, the *hui kuan* in Hong Kong, the *phei kwan* or *poey kuan* in Thailand, the *chop* and *chit* systems found throughout East Asia, and the *padala* in the Philippines. Those systems are similar in structure to the systems from which the modern financial system originally developed, and they evolved over the centuries as people with ethnic or national ties developed secure methods of transferring funds and settling accounts over long distances. The systems have been implicated to some degree in smuggling, money laundering, and other illegal activities but appear to exist primarily because they can process large numbers of transactions in countries that lack fully developed formal financial institutions.

Informal transfers depend on the personal relationships between two financiers living in different locations. A customer seeking to transfer funds to another person in another country gives the funds to a local financier (a *hawaladar* in the *hawala* system), who gives the customer a code. The financier receives a fee or may be compensated by charging an exchange rate above the prevailing rate. The customer sends the code to the recipient, while the financier instructs another financier in the other country to pay the recipient upon provision of the code. The financiers may settle up through a financial transaction, by trading goods or services, or through a reverse *hawala*. In such a system, the entire transaction can occur without any component appearing in any country's national or international accounts.

Effects on the U.S. and Recipient Economies

Because they are so small compared with the country's GDP, remittances have a negligible effect on the U.S. economy. To the extent that remittances reduce the purchasing power of people living in the United States, that value is far outweighed by migrants' contribution to domestic production and consumption.

At a global level, remittances constitute a tiny fraction of economic activity, amounting to about 0.3 percent of gross world product in 2002 (see Table 3). For nearly all major source countries, moreover, remittances are minor flows. Nonetheless, remittances constitute a substantial and important source of income in a number of receiving countries, especially when compared with other sources of international finance, such as exports, foreign investment, and foreign aid.

For developing countries taken as a whole, remittance inflows from all countries in 2002 were equivalent to nearly 1 percent of aggregate GDP. Remittance inflows were, however, a more significant source of resources for some countries, including 19 for which remittances amounted to more than 5 percent of the country's GDP. They include the following Latin American and Caribbean countries, whose citizens receive the bulk of their remittances from migrants working in the United States:

- Haiti (20 percent of GDP),
- Jamaica (14 percent),
- El Salvador (14 percent),
- Honduras (11 percent),
- Nicaragua (9 percent),
- Dominican Republic (9 percent),
- Guatemala (7 percent), and
- Ecuador (6 percent).

One data source suggests that for most of those countries, average annual remittances to households that receive them are comparable in size to the country's average annual per capita GDP.[11] The proportion of adults receiving remittances is substantial: an estimated 23 percent of Central Americans, 18 percent of Mexicans, and 14 percent of Ecuadorans (Suro, 2003).

Remittances to all developing countries were only about 3 percent as large as their total exports of good and services in 2002 and thus constituted a small source of foreign exchange. However, remittances were at least 25 percent as large as exports for 20 countries, including eight countries in the Western Hemisphere:

- Haiti (156 percent of exports),
- El Salvador (51 percent),
- Guatemala (41 percent),
- Nicaragua (41 percent),
- Jamaica (37 percent),
- Dominican Republic (35 percent),
- Honduras (29 percent), and
- Ecuador (25 percent).

Remittances were about 39 percent as large as foreign direct investment (FDI) for developing countries as a whole in 2002, and about 57 percent as large for developing countries in the Western Hemisphere.[12] For more than 40 developing countries, remittances were larger—and for most of them, much larger—than FDI, including nine countries in the Western Hemisphere:

- Haiti (more than 100 times larger than FDI),
- Guatemala (14 times larger),
- El Salvador (9 times),
- Honduras (5 times),
- Jamaica (235 percent),
- Nicaragua (216 percent),
- Dominican Republic (204 percent),
- Colombia (121 percent), and
- Ecuador (112 percent).

11. Inter-American Dialog (2004), citing data from World Bank (2003).

12. Foreign direct investment is distinguished from other types of foreign investment by the fact that a person in one country acquires a lasting interest in and a degree of influence over the management of a business enterprise in another country.

Table 3.

Remittances Compared with Other Flows for Various Regions and Countries

Region/Country	Total Remittances Received, 2002 (Millions of dollars)	Remittances as a Percentage of: Gross Domestic Product	Exports of Goods and Services	Foreign Direct Investment	Official Development Assistance
All Countries	78,208	*	2	30	143
Industrialized Countries	11,215	*	1	13	N.A.
Developing Countries	66,993	1	3	39	122
Europe	8,348	1	2	24	73
Middle East	7,061	1	3	233	124
Africa	6,158	1	4	61	32
Asia	19,961	1	2	26	142
China	1,747	*	*	3	118
India	8,065	2	10	266	551
Pakistan	3,554	6	32	432	166
Western Hemisphere	25,465	2	6	57	549
Argentina	171	*	1	22	**
Colombia	2,454	3	15	121	556
Costa Rica	234	1	3	35	4,685
Dominican Republic	1,960	9	35	204	1,248
Ecuador	1,432	6	25	112	663
El Salvador	1,935	14	51	930	831
Guatemala	1,579	7	41	1,436	634
Haiti	676	20	156	**	433
Honduras	711	11	29	497	164
Jamaica	1,131	14	37	235	4,711
Mexico	9,814	2	6	67	7,216
Nicaragua	377	9	41	216	73

Source: Congressional Budget Office based on data from International Monetary Fund, *Balance of Payments Statistics;* World Bank, *World Development Indicators 2004;* and Department of Commerce, Bureau of Economic Analysis.

Notes: N.A. = not applicable (industrialized countries do not receive official development assistance).

* = between zero and 0.5 percent.

** = Argentina received very minor official development assistance and Haiti received very minor foreign direct investment in 2002.

Developing countries, taken as a group, received about 22 percent more foreign exchange from remittances than they did from official foreign aid in 2002. For developing countries in the Western Hemisphere, remittances were more than five times larger than was foreign aid, and for five of them—Argentina, Mexico, Jamaica, Costa Rica, and Dominican Republic—more than 10 times larger.

Remittances obviously improve the well-being of receiving households in the migrant's country of origin.[13] However, the overall effect of remittances on receiving countries' macroeconomies is less clear-cut.[14] Remit-

13. One statistical study found that a 10 percent increase in the share of remittances in a country's GDP resulted in a 1.9 percent decline in the share of its population living on less than a dollar a day. Most of that effect occurred in Africa, the Middle East, South and Central Asia, and Eastern Europe rather than in Latin America or East Asia. See Adams and Page (2003).

14. Useful summaries of current research are available in Rapoport and Docquier (forthcoming) and Ellerman (2003).

tances can have both positive and negative macroeconomic effects.[15] They provide a country's economy with foreign currency, help finance imports, contribute to the balance of payments, and increase national income. However, migration reduces the labor force of the country of origin, and remittances may reduce the remaining family members' incentive to work.

The available evidence from a large number of studies across different countries suggests that below a threshold level of income, recipients tend to use remittances primarily to meet pressing economic needs, such as basic consumption and health care. Once those basic needs are met, they may use remittance income for education and consumer durables, to buy land or housing, and after that, to pay off debts or make investments (see, for example, Lowell and De la Garza, 2000; and Sander, 2003). Remittances from the United States typically take the form of monthly low-value payments that their recipients use to cover basic living expenses (see Suro and Bendixen, 2002). However, remittances spent on goods for consumption may also have a significant effect on development. For instance, a study in El Salvador indicates that higher remittance income seems to help keep children in school longer than other types of income (see Cox and Ureta, 2003).

Furthermore, the evidence also suggests that households tend to save a larger portion of remittance income than they do other sources of income, providing a source of capital for investment (see, for example, Adams, 2002). In at least some developing countries with poorly developed financial sectors, remittances and migrants' capital contribute to a substantial portion of small-business development. Some studies show a decline in rural output in several countries after a period of extensive migration, followed by a period during which the decline was at least partially offset (and perhaps more than offset) by growth that was financed largely by remittances (see Rapoport and Docquier, forthcoming).

One study indicates that remittances contributed more than 25 percent of the capital invested in microenterprises in Mexican cities and that they are associated with more than 40 percent of the capital invested in such enterprises in the 10 Mexican states with the highest rates of migration to the United States (see Woodruff and Zenteno, 2001).

Some evidence suggests that as workers begin migrating from a village, remittances may increase the degree of income inequality there, but after the village develops a longer history of sending migrants, remittances tend to reduce the degree of inequality (Stark and Taylor, 1986).

15. Extensive literature exists on the macroeconomic, growth, and distributional effects of remittances. Useful discussions include Addy and others (2003), Chami and others (2003), Cox and Ureta (2003), DeSipio (2000), Ellerman (2003), Funkhouser (1992), Kapur (2003), Keely and Tran (1989), Lowell and De la Garza (2000), Meyers (1998), Ramamurthy (2003), Rapoport and Docquier (forthcoming), Russell (1992), Sander (2003), Stark and Taylor (1986), Suro and Bendixen (2002), Woodruff and Zenteno (2001), and Yang (2004).

Appendix: Global Remittances

For most countries, information on remittances and research on their effects tend to be less developed than for other major international flows, such as exports, investment, or foreign aid (Kapur, 2003). Data for remittances are sparser and less reliable than are most economic data for industrialized countries, as are most data on the entire process of international migration and on economic activity in developing countries in general.

The most extensive and consistent collection of data on remittances is found in the balance-of-payments (BOP) statistics assembled by the International Monetary Fund (IMF) from data contributed by approximately 160 member countries.[1] The World Bank also assembles national accounts, relying primarily on data provided by the IMF but also using data provided by approximately 20 countries that belong to the World Bank but not to the IMF. Those collections, which provide the most comprehensive description of international transactions available, record workers' remittances under the heading of "current transfers" in the current account.

The Treatment of Remittances in the Balance of Payments

From an economic point of view, the balance-of-payments accounts could treat flows of labor and labor income across national borders in the same way that they treat flows of capital and capital income. If someone invests in another country, the movement of capital is counted as a debit (or outflow) to the capital and financial account of the person's home country and a credit (or inflow) to the account of the host country where the investment occurs; conversely, if that person repatriates his capital, there is a credit to the home country and a debit to the host country. Any income that the investment pays to the investor is counted as part of the current account, which tracks the imports and exports of goods, services, and income. A payment is counted as a debit to the host country (like an export, in effect) and as a credit to the home country. The income is also counted as part of the host country's gross domestic product (GDP) in its national accounts, but as part of the gross national product (GNP) of the investor's home country.

That approach is difficult to apply to the labor of migrant workers because there is no practical way of calculating the value that is transferred when a worker migrates from one country to another. As a consequence, no country counts the migration of workers as a flow of assets in the balance-of-payments accounts. Most countries count workers' remittances—if they count them at all—as unilateral (or "unrequited") transfers in the current account, rather than as income flows, and the income is counted as part of the GDP and GNP of the host country. If the worker is expected to stay in the host country for less than a year, however, any income transferred back to the home country is counted as an income flow rather than a unilateral transfer. It is also counted as part of the host country's GDP but the home country's GNP. In addition, if a migrant worker transfers a significant quantity of savings back to the home country, most countries count that flow as a capital transfer debited against the host country's capital and financial account and credited to the home country's, but the transfer is not counted as an income flow in either country's GDP or GNP.

Trends in International Flows of Remittances and Related Transfers

Although the official data indicate rapid growth in global remittances over the past two decades, closer examination suggests that the existing data on global remittances are of such low quality that the trend is considerably less certain that the data indicate. According to the official data, reported outflows of remittances grew from less than $20 billion in 1980 to more than $72 billion in 2003, or

1. Various problems with the BOP data are discussed in the annex of Ratha, Dilip (2003). A recent technical discussion of definition issues can be found in Alfieri, Havinga, and Hvidsten (2005).

Table A-1.

Workers' Total Remittances in Various Regions and Countries

(Millions of dollars)

	1980	1990	2000	2001	2002	2003
			Outflows			
All Countries	19,938	35,948	57,378	60,275	67,922	72,007
Industrialized Countries	10,383	19,794	34,148	36,168	38,831	43,600
United States	810	8,390	20,543	21,458	23,145	25,542
Developing Countries	9,555	16,154	23,229	24,107	29,091	28,407
Africa	2,141	1,523	1,225	1,197	1,287	980
Asia	7	22	530	702	4,132	3,920
Europe	8	21	225	770	1,355	2,008
Middle East	6,722	13,816	19,898	20,020	20,986	20,268
Western Hemisphere	678	772	1,352	1,418	1,331	1,231
			Inflows			
All Countries	29,336	47,633	63,637	69,913	78,208	77,945
Industrialized Countries	8,663	11,776	11,062	11,949	11,215	11,306
United States	n.a.	n.a.	353	375	393	n.a.
Developing Countries	20,673	35,858	52,575	57,964	66,993	66,639
Africa	2,552	3,572	4,431	5,978	6,158	6,900
Asia	5,603	6,659	15,590	15,709	19,961	14,670
Europe	6,195	12,722	8,674	8,373	8,348	6,522
Middle East	5,133	8,138	5,865	6,045	7,061	6,955
Western Hemisphere	1,189	4,766	18,015	21,859	25,465	31,591

Source: Congressional Budget Office based on data from International Monetary Fund, *Balance of Payments Statistics*; World Bank, *World Development Indicators*; and Department of Commerce, Bureau of Economic Analysis.

Note: n.a. = not available.

about 5.7 percent per year on average (see Table A-1). Reported inflows grew from more than $29 billion to nearly $78 billion during the same period, or about 4.3 percent per year on average. (The decline from 2002 to 2003 is an artifact resulting from reporting lags from many developing countries.) Developed industrialized countries accounted for 57 percent of the remittance outflows but only 14 percent of the inflows, whereas developing countries accounted for 43 percent of the outflows but 86 percent of the inflows. (Not counting Saudi Arabia, which relies heavily on migrant labor, developing countries accounted for less than 20 percent of remittance outflows.)

Part of the rapid growth in remittances, however, simply reflects inflation. If (where possible) remittance inflows are converted to recipient countries' currencies, deflated using their consumer price indices, and reconverted to dollars using 2002 exchange rates, the results suggest that reported remittances grew by about 2.3 percent per year on average.

The fact that the aggregate reported inflows and outflows of remittances have become more nearly equal—that is, what countries report as flowing out more nearly balances with what countries report as flowing in—suggests that data collection may be becoming more accurate (or at least more equally inaccurate for inflows and outflows) over time. Nevertheless, remittance data continue to be incomplete. Countries use a variety of different methods to estimate remittance flows, and many countries do not record remittance inflows or outflows at all. About a quarter of the inflows of remittances reported in 1980 went to countries that did not report remittances in 2002, and about a quarter reporting in 2002 did not do so in 1980. Moreover, many countries, accounting for about one-fifth of the global population in 2002, did not report remittances in either 1980 or 2002 or reported zero remittances—probably indicating, in the latter case, that they did not collect the data. Some countries record remittance outflows but not inflows. As mentioned above, the United States did not record inflows until recently and still does not report them separately to the IMF.

Moreover, the BOP statistics probably undercount remittances because they record only transfers that are carried out through official financial channels, excluding the large and unknown portion that flows through unofficial channels (Adams and Page, 2003). One study estimates that 15 percent to 80 percent of remittances to Asian countries flow through informal systems; another study suggests that 28 percent to 46 percent of Mexican migrants' remittances occur that way; and yet another recent study suggests that perhaps 45 percent of remittances flow through informal systems (Buencamino and Gorunov, 2002, p. 6).[2] If correct, such estimates imply that global remittances are well over $100 billion per year.

In addition, there are several sets of international flows that are effectively remittances but are not recorded as such: those include in-kind transfers that are recorded as imports—as when a migrant worker buys airline tickets, an insurance premium, or school tuition for his family back home—or as donations to charitable organizations (Solimano, 2003). For all of those reasons, remittances are very likely larger than official records suggest, but the extent of the undercount is difficult to estimate.

Finally, it is very likely that some of the growth in reported remittances simply reflects improvements in measurement. Those improvements probably stem largely from a growing tendency for immigrants to send remittances through formal channels (such as wire transfers and money orders) rather than through unreported informal channels (such as money-transfer systems like the *hawala* in the Middle East, or even money transfers carried by hand). A recent study by the International Monetary Fund estimated that informal transfers were on the order of $35 billion per year during the 1980s but were only around $10 billion annually in recent years (El-Qorchi and others, 2002, cited in Sorensen, 2004). If those values are accurate, global remittances may have grown very little or even fallen in real terms between 1980 and 2002. However, so little is known about the share of remittances that are transferred informally that strong conclusions about the trend in total remittances do not seem warranted.

Regional and Country-Level Data

At the regional and country levels, outflows and inflows of remittances show mixed trends that reflect different regional and national experiences (see Table A-1). A quarter-century ago, Europe (mainly France and Germany) was the primary source of reported remittances, with the Middle Eastern oil-exporting nations also a major source. Reported remittances from the United States were comparatively minor. Those patterns have shifted: although the oil exporters still attract a large number of foreign workers who send home sizable quantities of remittances, the European economies no longer experience the labor shortages that led them to encourage migration a generation ago (although some European countries have experienced significant inflows of migrants in the past 15 years). In the meantime, the United States has once again become a major destination of migrants, as it was through most of its history, and in 2002 accounted for more than 60 percent of remittances reported by developed countries and about 34 percent of all reported remittances. Saudi Arabia accounted for another 23 percent. Those two countries alone were responsible for more than 57 percent of all reported remittances, and they and 11 other countries—six countries in Europe (Germany, France, Spain, Switzerland, Italy, and Russia); three countries in the Middle East (Kuwait, Oman, and Bahrain); and Japan and Malaysia—accounted for 90 percent.

The pattern of remittance receipts has shifted, too. Remittances to European countries—developed and developing countries alike—have been relatively constant in nominal terms and have fallen in real terms. That reflects two developments. One is that the Mediterranean countries have experienced significant growth, giving their workers less incentive to migrate north, while northern European countries no longer experience the tight labor markets that they did a generation ago. The other devel-

2. Other estimates of receipts of unrecorded remittances at various points in time include Bangladesh, 20 percent; Korea, 8 percent; India, 40 percent; Egypt, 33 percent; Philippines, 50 percent; Pakistan, 43 percent; Sri Lanka, 13 percent; Sudan, 85 percent; Thailand, 18 percent; Tonga, 43 percent; and Western Samoa, 42 percent. See Ramamurthy (2003).

opment is the collapse of Yugoslavia and the subsequent war, which may or may not have reduced remittances but certainly disrupted their measurement. Measured remittances to Middle Eastern countries, too, have been level in nominal terms and fallen in real terms for some of the same reasons. An offsetting development is the collapse of the Soviet bloc, which has led to migration from Eastern Europe and has also resulted in transfers among former Soviet republics—once domestic transactions—becoming international.

Other regions of the world show significant growth in reported remittances, even in real terms—particularly Asia and the Western Hemisphere. For the latter, remittances grew from less than $1.2 billion in 1980 to more than $25 billion in 2002 in nominal terms, with nearly all countries that reported remittances experiencing significant growth even in real terms. Five Latin American countries—Mexico, Colombia, Dominican Republic, El Salvador, and Brazil—accounted for more than 70 percent of reported remittances from the Western Hemisphere.

Remittances tend to make up a larger share of the economies of lower-income developing countries, but the bulk of remittances goes to middle-income countries.[3] Viewed across all countries, total receipts of remittances in a particular country are strongly correlated with the number of its workers living abroad and the size of their wages. Those two factors alone explain about 90 percent of the international variation in reported remittance inflows.[4] At that general level, higher remittances are also associated with migrants' marital status (married workers send more money home to their families than do unmarried workers), a higher level of economic activity in the countries where the migrants are working, and the ability to make transfers easily. Relative wages, exchange rates, and relative real interest rates between the country of origin and that of migration do not seem to have much effect on the levels of total remittances between them, nor does the average distance of migration.

3. For more extensive discussions of remittances as a source of financing to developing countries, see Gammeltoft (2002), Ratha (2003), Sander (2003), and Solimano (2003).

4. The correlates of remittances are discussed in detail in Ramamurthy (2003), Rather (2003), Buencamino and Gorunov (2002), and Kapur (2003).

Migrants' Capital Transfers

In addition to their remittances, returning migrants took home substantial amounts of financial capital (see Table A-2). Countries reported a total of about $1.2 billion in outflows (and $1.9 billion in inflows) of migrants' capital in 1980, and about $9.7 billion in outflows (and $11 billion in inflows) in 2002. Reported capital transfers by migrants are thus roughly 14 percent as large as remittance flows and appear to have grown significantly even in real terms.

In recent years, a significant fraction of those capital transfers by migrants—roughly 30 percent to 40 percent—has come from developing countries, while roughly 80 percent has gone to developed industrialized countries. Thus, relatively little of the recorded total—roughly 20 percent at most—can be attributed to workers in developed countries moving financial resources back to their native countries.

Compensation of Nonresident Employees

Finally, compensation of nonresident employees—that is, payments to workers expected to stay in the host country for less than a year—grew from $9.8 billion in 1980 to $50 billion in 2002, measured as inflows into receiving countries (see Table A-3).[5] Outflows from sending countries—including compensation of employees of international organizations—amounted to $52.9 billion in 2002. International organizations and developing countries each accounted for about 15 percent of that total; industrialized countries accounted for the remaining 70 percent (or $36.7 billion). Furthermore, at least half of the flows reported to developing countries in 2002 must have involved compensation in developed countries of short-term employees from developing countries.

Altogether, countries reported $130.5 billion worth of outflows and $138.6 billion of workers' remittances, migrants' capital transfers, and compensation of employees in 2002. Very roughly speaking, developed countries accounted for two-thirds of the outflows and one-third of the inflows, while developing countries accounted for one-third of the outflows and two-thirds of the inflows.

5. The category is referred to in the balance-of-payments accounts as "compensation of employees" but should not be confused with the similarly named category in the national income and product accounts, which includes compensation of resident employees. The balance-of-payments category also includes compensation of some employees who typically work for more than one year, such as those who work for international organizations.

Table A-2.

Migrants' Total Capital Transfers in Various Regions and Countries

(Millions of dollars)

	1980	1990	2000	2001	2002	2003
			Outflows			
All Countries	1,167	3,975	7,782	8,787	9,739	7,418
Industrialized Countries	801	3,277	5,309	5,877	6,790	4,231
United States	120	n.a.	n.a.	n.a.	2,199	n.a.
Developing Countries	365	698	2,472	2,910	2,949	3,187
Africa	224	115	97	74	66	62
Asia	58	452	863	915	1,286	1,561
Europe	3	0	1,339	1,383	1,383	1,350
Middle East	0	0	0	0	0	0
Western Hemisphere	81	131	174	538	215	213
			Inflows			
All Countries	1,941	5,313	8,240	10,062	11,009	9,941
Industrialized Countries	1,485	4,458	6,426	8,554	9,277	8,226
United States	260	n.a.	n.a.	n.a.	1,089	n.a.
Developing Countries	456	855	1,813	1,508	1,731	1,715
Africa	68	56	29	25	29	45
Asia	17	26	185	122	234	194
Europe	37	0	1,030	702	752	712
Middle East	296	712	207	262	202	202
Western Hemisphere	38	62	363	397	515	562

Source: Congressional Budget Office based on International Monetary Fund, *Balance of Payments Statistics*; and Department of Commerce, Bureau of Economic Analysis.

Note: n.a. = not available.

Table A-3.

Total Compensation of Nonresident Employees in Various Regions and Countries

(Millions of dollars)

	1980	1990	2000	2001	2002	2003
			Outflows			
All Countries (including international organizations)	n.a.	31,143	47,060	53,548	52,874	n.a.
All Countries	9,804	26,083	40,520	46,411	44,777	51,938
Industrialized Countries	7,888	23,220	32,675	38,323	36,654	42,999
United States	550	3,460	7,519	8,086	8,380	8,533
Developing Countries	1,916	2,864	7,845	8,088	8,123	8,939
Africa	1,241	1,297	1,121	939	911	844
Asia	78	531	1,416	1,637	1,861	2,149
Europe	7	16	1,447	1,902	2,133	3,061
Middle East	265	877	3,390	3,106	2,706	2,376
Western Hemisphere	325	143	471	504	512	509
International Organizations[a]	n.a.	5,060	6,540	7,137	8,097	n.a.
			Inflows			
All Countries	9,825	24,516	43,888	48,245	49,629	57,199
Industrialized Countries	6,660	19,215	28,067	32,981	32,365	37,205
United States	80	1,170	2,835	2,931	2,938	3,031
Developing Countries	3,165	5,300	15,821	15,264	17,264	19,994
Africa	541	919	955	827	802	608
Asia	949	2,962	9,062	8,672	10,438	11,921
Europe	70	21	2,661	2,923	3,368	4,667
Middle East	899	485	1,302	891	492	501
Western Hemisphere	707	914	1,841	1,950	2,164	2,296

Source: Congressional Budget Office based on International Monetary Fund, *Balance of Payments Statistics*; and Department of Commerce, Bureau of Economic Analysis.

Note: n.a. = not available.

a. Compensation of employees working abroad for international organizations.

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