CHAPTER 1

Migrant Remittances in Africa: An Overview

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Remittances are often said to be the most tangible and least controversial link between migration and development (Russell 1992, Ratha 2007). Remittance flows to developing countries have increased substantially during the last decade to reach $325 billion in 2010 (World Bank 2011). Remittances sent by 31 million international African migrants reached nearly $40 billion in 2010, equivalent to 2.6 percent of Africa's gross domestic product (GDP).

The data on African migration and remittance flows, however, are likely to be understated because of the scale of undocumented migration within the African continent, the prevalence of informal remittance channels within the region, and the relatively weak official data in many African countries (World Bank 2006). The true size of remittance flows to Africa, including unrecorded flows through formal and informal channels, is believed to be significantly larger than the official data. After foreign direct investment (FDI), recorded remittances are the African continent's largest source of foreign inflows.

Remittance receipts generate large benefits for the countries of origin in Africa. The review of the literature and evidence presented in this chapter suggests that remittances tend to be stable, and often countercyclical, compared to other private flows and help to sustain consumption and investment during economic downturns. Cross-country analysis and evidence from household surveys show that remittance receipts are associated with reductions in poverty, increased household resources devoted to investment, and improved health and education outcomes. Migrant remittances help smooth household consumption and act as a form of insurance for African households facing shocks to their income and livelihood caused by drought, famine, and other natural disasters. The securitization of future remittance flows—the use of hard currency remittances as collateral to raise financing—can increase the access of African banks and firms to international capital markets and can be used to fund longer-term development and infrastructure projects.

In spite of the size, stability, and development implications of these financial flows, this chapter suggests that remittance markets in Africa remain relatively underdeveloped. Africa has arguably the largest share of cross-border remittances flowing through informal channels, and significantly higher remittance costs, compared with other, more mature remittance corridors (for example, from the United States to Mexico and from the Persian Gulf to South Asia). African migrants—especially those residing in other African countries—and recipient households often have limited access to formal remittance and banking services. A large share of international remittances to Africa is channeled through a few large international money transfer agencies, which sometimes work in exclusive partnership with African banks and post offices.

The broader business and operating environment for provision of remittance services is relatively weak in many African countries. At the same time, the rapid adoption of innovative money transfer and branchless-banking technologies is transforming the landscape for domestic or within-country remittances and potentially broader financial services in Africa. However, the adoption of these technologies for cross-border transfers has been limited so far, in part because of concerns about money laundering and terrorist financing related to cross-border money transfers.

This volume represents an effort to better understand the current state and issues in remittance markets in Africa and in selected remittance-source countries. It brings together studies of remittance markets for eight Sub-Saharan African countries and in two key migrant-destination countries outside the African continent conducted as part of the Africa Migration Project in 2008–10. These studies served as background material for a joint regional report of the African Development Bank (AfDB) and the World Bank titled *Leveraging Migration for Africa: Remittances, Skills, and Investments* (AfDB and World Bank 2011).

The surveys of remittance service providers (RSPs) were implemented by primarily country-based researchers and institutions between 2008 and 2009. The country studies cover recent migration and remittance trends, business environments, services provided to remittance senders and receivers, remittance costs, and innovations in the remittance marketplace. Collectively, these studies provide a unique perspective of RSPs about their business and operating environment, regulations governing remittance transfers, and innovations in remittance technologies across a wide range of African countries.

In general, the country studies reflect the state of the remittance markets in Africa and migrant-destination countries at the time of the surveys. Given the rapidly changing and dynamic nature of remittance markets in Africa, some of the key facts and trends (such as volumes of remittances received, subscribers of mobile money-transfer services, and recent regulatory changes) have been updated to reflect the latest information available. Many findings of the country studies—especially the discussions of market structure and policy issues—are equally or even more relevant today in view of the increasing awareness of migrant remittances as a source of development financing for recipient countries and the international efforts targeted at reducing the cost of international remittances.

This overview chapter outlines the implications of remittances for Africa's development and the related policy issues. It sets out the context for better understanding the importance of effective functioning of remittance markets for the livelihood strategies of African households. The chapter also shows how migrant remittances serve essential consumption needs and act as an insurance against adverse shocks; contribute to the future productivity of Africans by providing funds for nutrition, education, and health; and improve their access to formal banking services and information and communication technology. In addition, it briefly discusses the implications of remittances for growth, sovereign creditworthiness, and external financing. The chapter's conclusion provides a bridge to the remainder of the volume and summarizes the 10 remittance-market country studies.

The overview chapter and country studies paint a nuanced picture of not only the opportunities but also the many obstacles still to be overcome in the quest for providing affordable and transparent remittance and broader financial services to the poorest in Africa. The cost of sending remittances to Africa, and especially within Africa, is among the highest among developing countries. The market for cross-border remittances in Africa continues to be characterized by a high degree of informality, lack of effective competition, exchange controls on outward transfers, and often-exclusive partnerships of international money transfer companies with local banks and post offices that contribute to high costs and restrict market entry and competition. At the same time, the widespread adoption of mobile money transfers for domestic remittances represents a success story of how Africa has effectively leapfrogged the technology frontier to design and deliver technology solutions targeting the poorest.

This rest of the overview is organized as follows. We first discuss recent trends and prospects for migration and remittances in Africa. Next, we examine the implications of remittances for growth and access to external finance of African countries. The section on implication of remittances for the welfare of African households draws on the literature and recent household surveys. The subsequent section reviews remittances costs, competition, legal and regulatory environments, and technological innovations in African remittance markets. We then discuss recent policy initiatives and outline some policy options for better leveraging remittances for Africa's development. The final section summarizes the studies of eight remittance markets in Sub-Saharan Africa (chapters 2–9 of this volume) and two key destination countries of African migrants: France and the United Kingdom (chapters 10–11 of this volume).

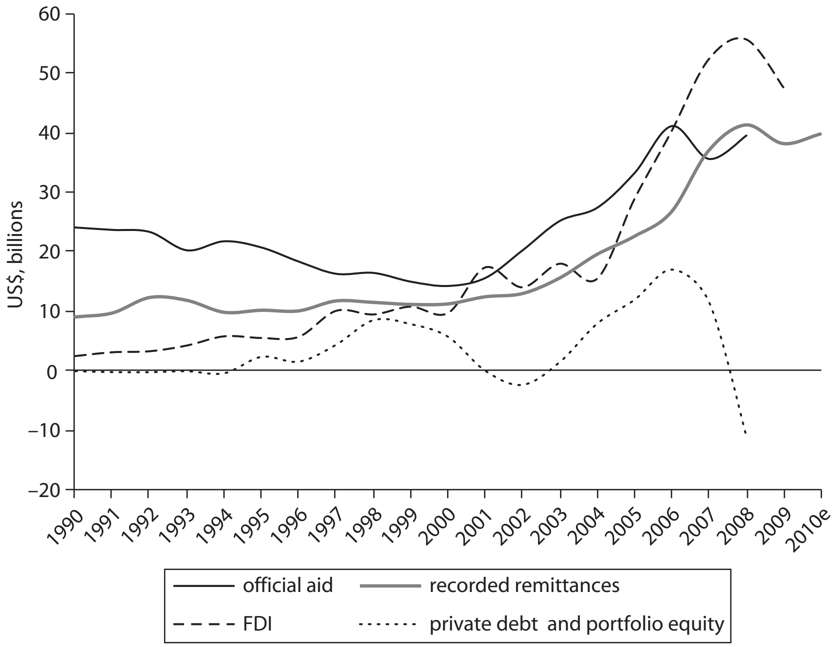
Recent Remittance Trends in Africa

Migrant remittances have become an important source of external finance for the African continent. Officially recorded remittance flows to Africa, as shown in figure 1.1, are estimated to have increased from \$9.1 billion in 1990 to nearly \$40 billion in 2010 (divided roughly equally between North Africa and Sub-Saharan Africa). The true size of remittances, including unrecorded flows, is believed to be significantly higher. Remittances to Africa equaled 2.6 percent of GDP in 2009, higher than the average of 1.9 percent of GDP for all developing countries.

Recorded remittance flows to the African continent are several times larger than official aid to North Africa (3.3 percent versus 0.6 percent of GDP) and almost 60 percent of the size of official aid flows to Sub-Saharan Africa, as table 1.1 shows. For many low-income African countries, remittances exceed private investment flows and represent a lifeline to the poor.

A few countries account for a substantial share of remittances to Sub-Saharan Africa and North Africa. Nigeria's \$10 billion equaled about half

Figure 1.1 Remittances and Other Resource Flows to Africa, 1990–2010



Sources: World Bank 2010c and Bank staff calculations.
Note: FDI = foreign direct investment. 2010e = estimated amount.

of all officially recorded remittances to Sub-Saharan Africa in 2010. Other large remittance recipients in Sub-Saharan Africa, in order of importance, include Sudan, Kenya, Senegal, South Africa, and Uganda.

As a share of GDP, however, the largest recipients are Lesotho (28.5 percent), Togo (10.7 percent), Cape Verde (9.4 percent), Senegal (9.3 percent), and The Gambia (8.2 percent). In North Africa, the Arab Republic of Egypt and Morocco—the two largest recipients in North Africa in terms of both U.S. dollar-denominated flows and share of GDP—account for three-quarters of flows to North Africa region, followed by Algeria and Tunisia.

These estimates of remittance inflows, based on data officially reported in the International Monetary Fund (IMF) balance of payments statistics (IMF 2010a), are likely well below the actual volume of remittance flows to Africa. The remittance inflows data reported by country authorities themselves are often higher than the IMF figures. For example, Ghana's central bank reported $1.6 billion in remittance inflows in

Table 1.1 Remittances and Other Resource Flows to Africa, 1990–2010

US$ billions, except where otherwise indicated

Region/resource flow	*1990*	*1995*	*2000*	*2005*	*2007*	*2008*	*2009*	*2010e*	*2009[a] (% GDP)*
Sub-Saharan Africa									
Migrant remittances	1.9	3.2	4.6	9.4	18.6	21.4	20.6	21.5	*2.2*
Official aid	16.9	17.8	12.1	30.8	32.6	36.0	..	..	*3.7*
Foreign direct investment	1.2	4.4	6.7	18.1	28.7	37.0	30.2	..	*3.2*
Private debt and portfolio equity flows	0.6	2.5	4.9	10.6	15.6	–6.5	12.3	..	*1.3*
North Africa									
Migrant remittances	7.2	7.0	6.6	13.1	18.3	19.8	17.5	18.2	*3.3*
Official aid	7.2	3.0	2.2	2.5	3.0	3.5	..	..	*0.6*
Foreign direct investment	1.1	0.9	2.8	9.9	22.5	21.6	14.9	..	*2.9*
Private debt and portfolio equity flows	–0.1	0.0	1.2	1.7	–3.6	–0.4	–0.5	..	*–0.1*
All Africa									
Migrant remittances	9.1	10.2	11.3	22.5	36.9	41.2	38.1	39.7	*2.6*
Official aid	24.1	20.7	14.3	33.2	35.6	39.5	..	..	*2.6*
Foreign direct investment	2.4	5.3	9.5	28.0	51.1	58.6	45.1	..	*3.1*
Private debt and portfolio equity flows	0.5	2.5	6.2	12.3	12.0	–6.8	11.8	..	*0.8*

Source: World Bank 2010c and authors' calculations.
Note: .. = negligible; FDI = foreign direct investment. GDP = gross domestic product; e= estimated
a. Data for official aid is for 2008.

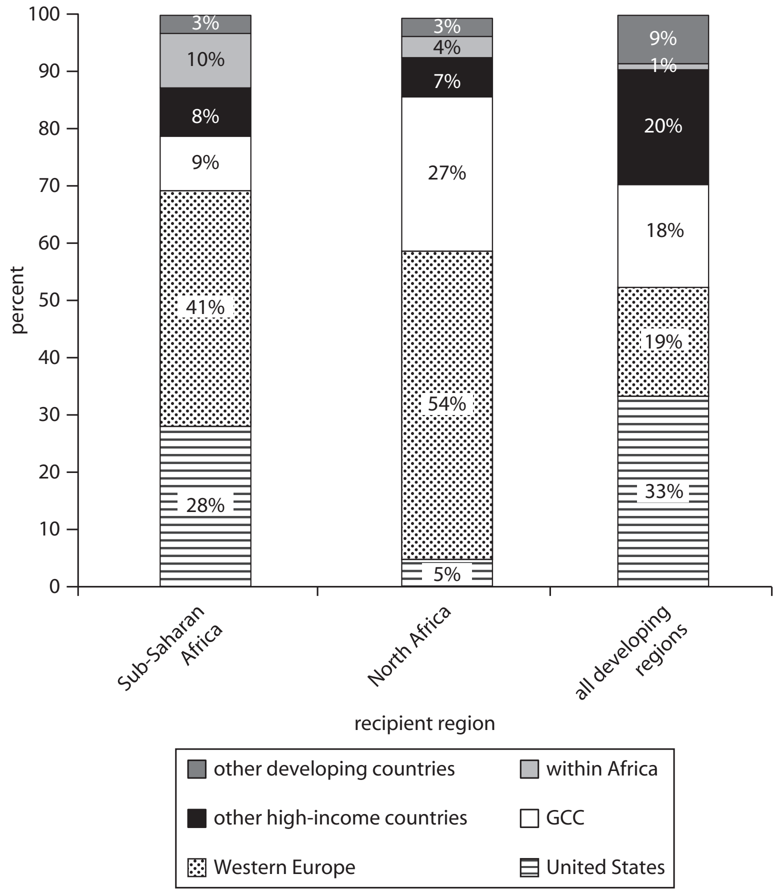
2009—more than 10 times the $114 million reported in the IMF balance of payments statistics. Ethiopia reported more than $700—about twice the $353 million reported by the IMF. These discrepancies are in part related to the misreporting of migrant remittances with other types of current transfers, such as transfers to nongovernmental organizations and embassies and payments related to small-value trade transactions. In addition, only about half of Sub-Saharan African countries report remittance data with any regularity (Irving, Mohapatra, and Ratha 2010). And some countries—such as the Central African Republic, the Democratic Republic of Congo, Somalia, and Zimbabwe, all of which are believed to receive significant remittance flows—report no remittance data at all. Even fewer Sub-Saharan African countries report monthly or quarterly data on remittances.[1]

Remittance flows through money transfer companies are often captured indirectly (in the reporting of partner banks, for example), but the independent operations of such firms may not be fully captured. Cross-border flows through other institutions (such as post offices, savings cooperatives, and microfinance institutions) and emerging channels (such as mobile money transfer services) are not captured in most Sub-Saharan African countries.

Surveys of migrants and remittance recipients and other secondary sources suggest that informal remittance flows, which are not included in the IMF estimates, could be equal to or exceed official figures for Sub-Saharan Africa (Page and Plaza 2006; IFAD 2009). Central banks in some African countries, such as Uganda, are making efforts to estimate these informal flows—through, for example, foreign exchange transactions data and surveys of remittance-receiving households—but these efforts appear to be limited to a few countries.

Data on the sources of remittance flows to Sub-Saharan Africa are not available for most countries in the region. Official data on intraregional migration and in particular on remittance flows within the region are often outdated or in many cases simply not available. However, estimates based on bilateral migration stocks, incomes in destination countries, and incomes in countries of origin indicate that the top sources of remittances for Sub-Saharan Africa, as shown in figure 1.2, are the European Union (EU)-15 countries (41 percent of inflows) and the United States (28 percent) (Ratha and Shaw 2007; World Bank 2011). The remaining sources are other developing countries, primarily in Africa (13 percent); the Gulf Cooperation Council (GCC) countries (9 percent), and other high-income countries

Figure 1.2 Sources of Remittances to Africa and All Developing regions in 2010



Sources: World Bank staff estimates, updating the methodology of Ratha and Shaw (2007) and using bilateral migration data from World Bank 2011 and economic data from World Bank 2010c.
Note: GCC = Gulf Cooperation Council.

(8 percent). North African countries are even more dependent on remittances from Western Europe (54 percent) and the GCC countries (27 percent).

Although intraregional migration is more important in Sub-Saharan Africa than in any other developing region, with more than two-thirds of emigrants from Sub-Saharan African countries within the region, however, intraregional remittances are estimated to be much smaller than remittances from outside the region. These estimated remittances are smaller primarily because the incomes of cross-border migrants within Africa are significantly lower than the incomes of African migrants in Europe, the United States, and the Gulf.

Macroeconomic Impacts of Remittances

Remittances tend to behave countercyclically and thus act as a form of insurance for origin countries against macroeconomic shock. Remittances rose during the financial crises in Mexico in 1995 and in Indonesia and Thailand in 1998 (Ratha 2007) and have increased with natural disasters and political conflicts (Yang and Choi 2007; Yang 2008a; Clarke and Wallsten 2004; Mohapatra, Joseph, and Ratha 2009).

Remittances thus behave very differently from most other private-source flows, which tend to be procyclical (Ratha 2003; Chami, Hakura, and Montiel 2009; Frankel 2010). This is largely because most remittances involve transactions among members of the same household, and thus are less driven by profit-seeking motives than private resource flows. Remittances are also less at the mercy of changes in the priorities of official aid donors and their fiscal situations (World Bank 2006). But remittances can be procyclical when they are sent for investment purposes, usually in middle-income countries (Sayan 2006; Lueth and Ruiz-Arranz 2008).[2]

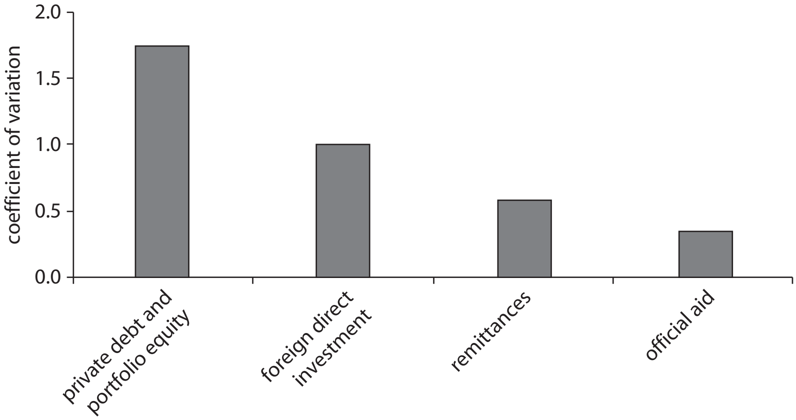
In Sub-Saharan Africa, where private capital flows have fluctuated considerably from year to year, remittances were more stable than both FDI and private debt and equity flows (Gupta, Pattillo, and Wagh 2009; Singh, Haacker, and Lee 2009), as shown in figure 1.3.

Impact of Global Financial Crisis

Analysis of the impact of the global financial crisis of 2008–09 on remittance flows is difficult because of the lack of timely and reliable data in most African countries. Remittance flows to Sub-Saharan Africa are estimated to have declined by a modest 3.7 percent in 2009 (Ratha, Mohapatra, and Silwal 2010; table 1.1). The decline in North African countries was more severe, in part because most North African migrants live in Europe, where GDP fell sharply in 2009.[3] Flows to North Africa are estimated to have fallen by 11.1 percent in 2009.

Remittance flows to Sub-Saharan Africa appear to have been less affected than those to North Africa because the remittance sources are more diversified, as seen in figure 1.2. Remittance flows to Egypt, the largest recipient in the North African region, declined by 18 percent in 2009; flows to Morocco, the second-largest recipient, declined

Figure 1.3 Stability of Resource Flows to Africa, 1990–2008, by Source



Source: World Bank 2010a.

9 percent. In Sub-Saharan Africa, flows to Kenya remained flat in 2009, and they declined by 6 percent in Cape Verde and by 9 percent in Ethiopia.

Remittance flows to Africa are estimated to have registered a quick recovery, rising by 4 percent in 2010. In the medium term, an uncertain economic recovery, high unemployment rates, and possible moves toward tightening immigration restrictions in destination countries (which likely would be aimed at migrants from outside the EU) could restrain the growth of remittance inflows to Africa. The implications of the widespread protests and crisis in North Africa and the Middle East in early 2011 were not clear as of the time of writing this chapter.

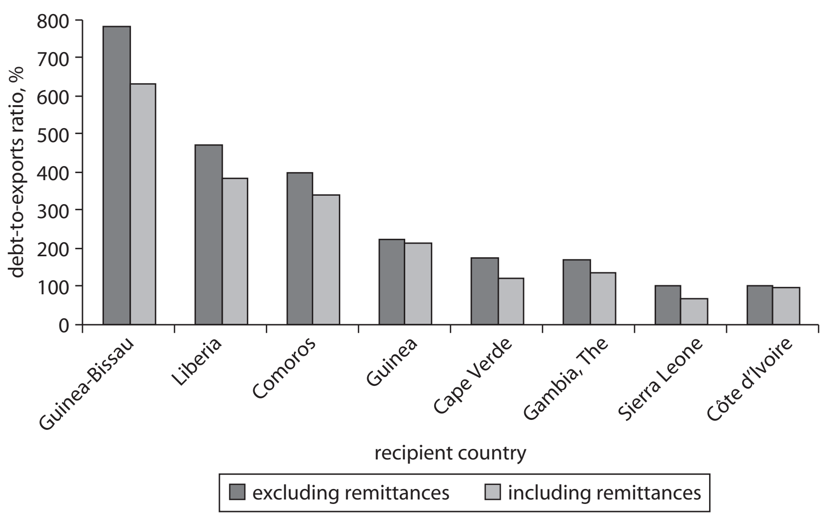
Remittances and Countries' Creditworthiness

Remittance inflows can improve sovereign creditworthiness by increasing the level and stability of foreign exchange receipts (Ratha 2007; Avendaño, Gaillard, and Nieto-Parra 2009). Remittances also help stabilize the current account by reducing the volatility of overall capital flows (Chami and others 2008). Remittances can reduce the probability of current account reversals, especially when they exceed 3 percent of GDP (Bugamelli and Paterno 2009).

Appropriately accounting for remittances can improve evaluations of African countries' external debt sustainability and creditworthiness. Remittances are now being factored into sovereign ratings in middle-income countries and debt sustainability analysis in low-income countries (IMF 2010b).[4] But fewer than half of African countries have a sovereign rating from one of the three major rating agencies (Ratha, Mohapatra, and Plaza 2009). Obtaining a sovereign rating—and improving the sovereign rating in those African countries that have one (after appropriately accounting for remittances)—will translate into improved market access for subsovereign entities, such as African banks and firms, whose foreign currency borrowing is typically subject to the country's "sovereign ceiling" (Borensztein, Cowan, and Valenzuela 2007; Ratha, De, and Mohapatra forthcoming).[5]

Including remittances in the calculation of the debt-to-exports ratio, as shown in figure 1.4, can provide a more accurate evaluation of debt sustainability and the amount of fiscal adjustment that may be needed to place debt on a sustainable path (World Bank 2006; Abdih and others 2009; IMF and World Bank 2009).[6] Including remittances in creditworthiness analysis using the shadow ratings model of Ratha, De, and Mohapatra (forthcoming) suggests that the creditworthiness of remittance-recipient countries would improve by one to three notches. The poor quality of remittance data in many African countries makes it difficult to assess the extent of improvement in sovereign creditworthiness

Figure 1.4 External Debt as a Share of Exports from, and Remittances to, Selected Countries
percentage of value of exports and received remittances



Source: World Bank 2010c.

that would result from the inclusion of remittances in the Africa region, however.

The securitization of future remittance flows (and other future receivables) can help African countries to use future remittances as collateral to raise additional financing from international capital markets and to reduce interest costs and lengthen the maturity of bonds for financing development projects such as low-income housing or power and water supply (Ratha 2005, Ketkar and Ratha 2009a and 2009b).[7] Banks in several African countries, aided by the African Export-Import Bank, have used remittance securitization to raise international financing at lower cost and longer maturities.

In 1996, the African Export-Import Bank coarranged the first future-flow securitization by a Sub-Saharan African country: a $40 million medium-term loan in favor of a development bank in Ghana, backed by its Western Union remittance receivables (Afreximbank 2005; Rutten and Oramah 2006). In 2001, it arranged a $50 million remittance-backed syndicated note issuance facility for a Nigerian entity using Moneygram receivables. In 2004, it coarranged a $40 million remittance-backed syndicated term loan facility to an Ethiopian bank using its Western Union receivables (Afreximbank 2005). Updated estimates using the methodology used by Ratha, Mohapatra, and Plaza (2009) suggest that the potential for securitization of remittances and other future receivables is $35 billion annually for Sub-Saharan Africa, as shown in table 1.2.

A low level of domestic financial development; extensive use of informal remittance channels; a lack of banking relationships with banks abroad; and the high fixed costs of legal, investment banking, and credit-rating services—especially in poor African countries with few large

Table 1.2 Securitization Potential for Sub-Saharan Africa, 2009
US$, billions

	Receivable	*Securitization potential*
Fuel exports	91.1	18.2
Agricultural raw materials exports	6.7	1.3
Ores and metals exports	37.7	7.5
Travel services	19.0	3.8
Remittances	20.6	4.1
Total	175.0	35.0

Source: Authors' estimates of securitization potential, based on the methodology of Ratha, Mohapatra, and Plaza (2009) and data from World Bank 2010c.

entities—make the use of securitization instruments difficult for Sub-Saharan countries (Ketkar and Ratha 2009a). The viability of securitization of future remittance flows can be facilitated by introducing a securitization law and improving flows through formal channels. Bilateral and multilateral donors can play a role in facilitating securitization—building, for example, on the United Nations Development Program's partnership with Standard & Poors to help African countries obtain sovereign ratings, which act as a ceiling for private sector borrowings.[8] There are risks to taking on foreign currency debt, however, and remittance securitization needs to be accompanied by prudential debt management and sound macroeconomic policies.

Remittances can affect economic growth in a positive manner by raising consumption and investment expenditures; by increasing expenditures on health, education, and nutrition that contribute to long-term productivity (discussed further in the next section); and by improving the stability of consumption and output at both the household and macroeconomic level (Chami, Hakura, and Montiel 2009). These benefits in turn increase the supply of investment from both domestic and foreign sources by increasing financial intermediation (Aggarwal, Demirgüç-Kunt, and Martinez Peria 2006; see Gupta, Pattillo, and Wagh 2009 for evidence for Sub-Saharan Africa), which can ultimately contribute to higher growth (Rajan and Zingales 1998; see Ghirmay 2004 and Akinlo and Egbetunde 2010 for Sub-Saharan Africa).[9]

Large inflows of remittances can cause the real exchange rate to appreciate ("Dutch disease"), which can impair growth if tradeable production imparts external benefits such as economies of scale and learning effects (World Bank 2006; Acosta, Lartey, and Mandelman 2009; Gupta, Pattillo, and Wagh 2009). But remittances do not appear to have had a significant impact on competitiveness for developing countries on average (Rajan and Subramanian 2005).[10] And there is little evidence of this effect for Africa, apart from some small countries such as Cape Verde, where remittance inflows are nearly 10 percent of GDP (Bourdet and Falck 2006).

In principle, large remittance receipts may also reduce the labor supply (Lucas 1987; Azam and Gubert 2006; Bussolo and Medvedev 2007; Chami and others 2008). There is little evidence of this phenomenon, however, and choices by some individuals to work less would be unlikely to have a significant impact on output in African countries with high levels of underemployment. Some experts argue that the additional income from remittances can reduce pressure to improve the quality of policies and institutions by making recipients less dependent on government benefits (Abdih and others 2008) or by providing sufficient foreign exchange to ease governments' concerns over structural rigidities. Others, however, find that remittances have a positive impact on growth in countries with higher-quality political and economic policies and institutions (Catrinescu and others 2009).[11]

The complexity of the growth process and the well-known problems of cross-country growth regressions make it difficult to determine whether remittances increase growth rates. In economies in which the financial system is underdeveloped, remittances may alleviate liquidity and credit constraints and help finance small-business investments, thereby effectively acting as a substitute for financial development. Giuliano and Ruiz-Arranz (2009) find evidence that the impact of remittances on growth is stronger when the level of financial development is weaker. Regression analysis suggests that remittances have the greatest impact on growth when the share of the broad money supply (M2) in GDP (an indicator of financial development) is below 28 percent, as it is in most African economies.

Impact on Households

Remittances can help reduce poverty, raise household investment, and increase access to health and education services. This section reviews the literature on the development implications of remittances from several developing regions, including Africa. It also looks at recent evidence collected through the Africa Migration Project surveys of the characteristics of households that receive remittances from outside Africa, within Africa, and within the same country (see Plaza, Navarrete, and Ratha, forthcoming). Although it can be difficult to separate the effects of remittances from the overall effect of migration in empirical studies (McKenzie and Sasin 2007), it is well established that the primary economic benefit of migration to recipient households is the receipt of remittances (World Bank 2006).[12] The findings regarding households receiving remittances in origin countries complement information about the characteristics of remittance senders in destination countries (World Bank 2006; Bollard, McKenzie, and Morten 2010).

Remittances can reduce poverty by directly augmenting the incomes of poor recipient households and increasing aggregate demand, thereby increasing employment and wages of the poor. Cross-country regressions generally find that remittances have reduced the share of poor people in the population (Adams and Page 2003, 2005). Econometric analyses suggest that remittances have reduced poverty in Africa. Anyanwu and Erhijakpor (2010) find that a 10 percent increase in official international remittances as a share of GDP led to a 2.9 percent decline in the share of people living in poverty in a sample of 33 African countries for 1990–2005, with similar declines observed for the depth and severity of poverty (see also Ajayi and others 2009). Gupta, Pattillo, and Wagh (2009) find that the impact of remittances on poverty in Africa, although positive, was smaller than for other developing countries, a result they attribute to the possibility that poverty can itself cause increased migration and hence greater remittances.

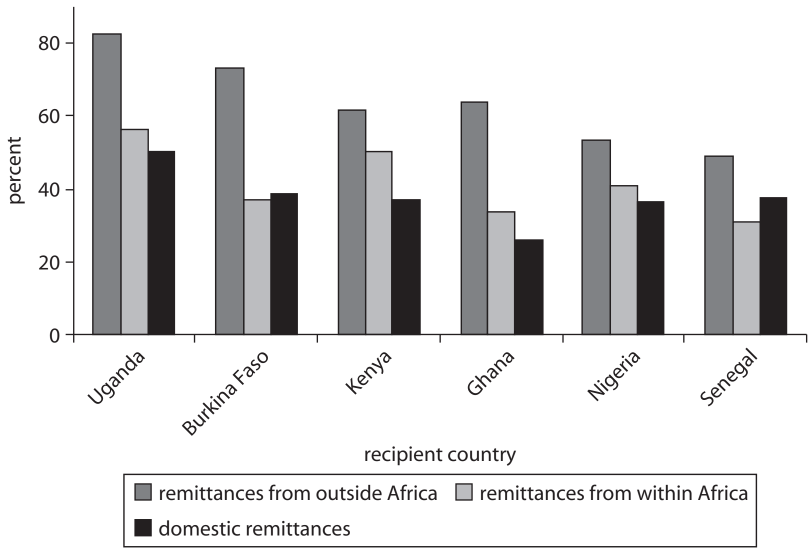
Studies of Burkina Faso (Lachaud 1999; Wouterse 2010); Ghana (Quartey and Blankson 2004; Adams 2006; Adams, Cuecuecha, and Page 2008a); Lesotho (Gustafsson and Makonnen 1993); Morocco (Sorensen 2004); and Nigeria (Odozia, Awoyemia, and Omonona 2010) conclude that remittances are associated with a reduction in the share of people in poverty—and, in some cases, the depth and severity of poverty as well. A substantial part of remittances in Mali is saved for unexpected events, thus serving as insurance for entire households (Ponsot and Obegi 2010). Food security in rural areas of Nigeria improved considerably with an increase in remittances (Babatunde and Martinetti 2010).

The evidence about the implications of remittances for inequality is less clear because it is not possible to observe the counterfactual incomes in the absence of migration (World Bank 2006; Ratha 2007). Households that receive remittances, especially from outside the African continent, may be richer to begin with in order to have the resources needed for migration, but they may also have higher incomes because of migration and the receipt of remittances. As figure 1.5 illustrates, recent household surveys conducted as part of the Africa Migration Project and an earlier survey in Ghana find that more than half of households in Burkina Faso, Ghana, and Nigeria, and 30 percent of households in Senegal receiving remittances from outside Africa are in the top two consumption quintiles.

As figure 1.6 illustrates, remittances from outside Africa tend to be much larger, on average, than remittances from other African countries or domestic sources (Bollard, McKenzie, and Morten 2010).

A recent study on the characteristics of African remittance senders based on microdata of more than 12,000 African migrants in nine Organisation for Economic Co-operation and Development (OECD) countries (Bollard, McKenzie, and Morten 2010) complements the findings from surveys of remittance-recipient households. The destination-country data suggest that Africans remit twice as much on average as

Figure 1.5 Shares of Remittance Recipients in Top Two Consumption Quintiles, Selected Countries

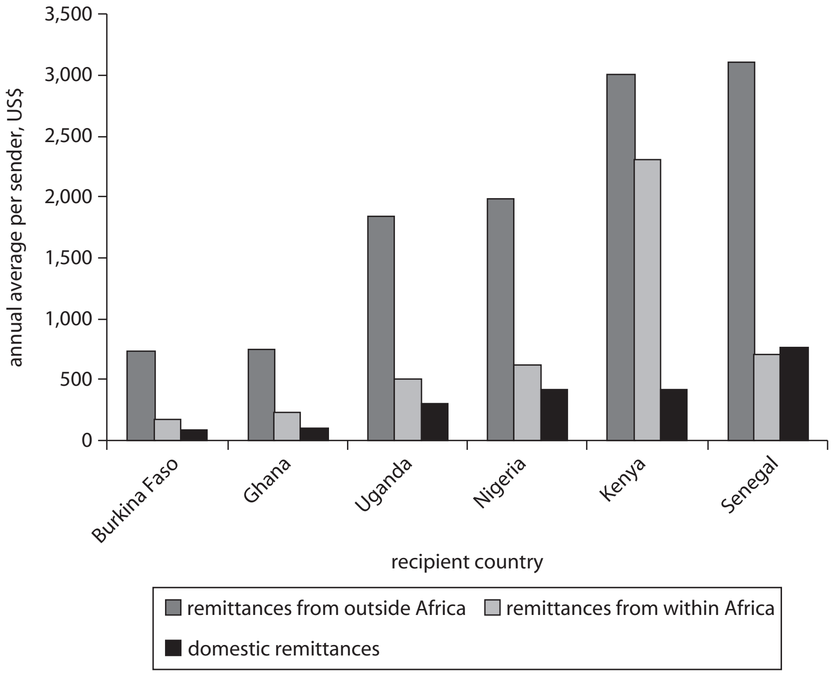


Source: Authors' calculations, based on household surveys conducted in Burkina Faso, Kenya, Nigeria, Senegal, and Uganda in 2009 as part of the Africa Migration Project and Ghana Living Standards Survey in 2005–06.

migrants from other developing countries. The average annual remittance sent by African migrant households in the OECD is $1,268—more than the average annual per capita income of African countries.[13] Africans also tend to remit more often, and African migrants from poorer African countries are more likely to remit than those from richer African countries.[14] Male African migrants in the OECD send larger amounts on average than females ($1,446 compared with $878 for females) partly because of their higher earnings but also because they are more likely to have spouses back home.

The evidence from other regions suggests that a significant part of remittances is spent on housing investment and the purchase of land, particularly in situations where other investment assets are not available.[15] The evidence for Africa on the uses of remittances for investment and entrepreneurship is somewhat limited. In Egypt, overseas savings are associated with a higher likelihood of entrepreneurship (and thus investment) among return migrants (McCormick and Wahba 2001, 2003). In 1997, Osili (2004) conducted a survey of 112 Nigerian migrant households in Chicago and a matched sample of 61 families in Nigeria. She found that

Figure 1.6 Average Annual Remittance to Selected Countries, by Source



Source: Authors' calculations based on household surveys conducted in Burkina Faso, Kenya, Nigeria, Senegal, and Uganda in 2009 as part of the Africa Migration Project and Ghana Living Standards Survey in 2005–06.

one-third of remittances were spent on housing investment in the preceding year and that migrants' housing investment was responsive to changes in macroeconomic conditions such as inflation, the real exchange rate, and political stability.

Recent household surveys conducted as part of the Africa Migration Project and an earlier survey in Ghana find that a significant portion of international remittances are spent on land purchases, building a house, business, improving the farm, agricultural equipment, and other investments, as table 1.3 shows. A substantial share of within-Africa remittances were also used for these purposes in Kenya (47 percent), Nigeria (40 percent), and in Uganda and Burkina Faso (19 percent each). The share of domestic remittances devoted to these purposes was much lower in all of the countries surveyed, with the exception of Nigeria (36.4 percent) and Kenya (26 percent).

Remittances may increase educational expenditures by helping finance schooling and reducing the need for child labor. But the absence of an

Table 1.3 Use of Remittances by Recipient Households in Selected African Countries, by Source
% of total remittances

	Burkina Faso			*Kenya*			*Nigeria*			*Senegal*			*Uganda*		
Use	*Outside Africa*	*Within Africa*	*Domestic*	*Outside Africa*	*Within Africa*	*Domestic*	*Outside Africa*	*Within Africa*	*Domestic*	*Outside Africa*	*Within Africa*	*Domestic*	*Outside Africa*	*Within Africa*	*Domestic*
New-house construction	25.7	10.1	2.6	11.2	27.5	1.3	5.8	0.0	0.1	7.0	0.7	0.0	2.5	1.6	0.4
Food	23.5	34.9	48.7	12.8	14.5	29.7	10.1	20.1	1.0	52.6	72.6	81.9	7.6	9.7	12.4
Education	12.4	5.9	9.4	9.6	22.9	20.5	22.1	19.6	4.5	3.6	2.3	4.6	12.7	14.5	20.2
Health	11.3	10.1	12.5	7.3	5.8	7.0	5.1	12.0	10.6	10.7	7.3	2.9	6.3	14.5	24.8
Business	10.4	2.6	2.4	3.9	8.4	13.0	21.7	20.1	11.1	1.3	5.7	0.2	7.6	9.7	2.1
Clothing	5.0	0.7	0.7	..	..	..	..	..	..	..	..	..	..	..	..
Marriage/funeral	2.1	3.9	3.1	0.9	1.7	2.0	0.4	1.0	0.7	2.9	2.4	1.1	7.6	6.5	1.7
Rent (house, land)	1.4	0.6	1.7	5.7	0.4	7.4	4.4	4.9	0.8	1.0	0.0	2.2	5.1	8.1	4.5
House rebuilding	0.3	1.0	1.2	5.3	3.1	1.3	4.7	3.2	7.0	4.2	0.7	0.1	6.3	3.2	2.1
Cars or trucks	0.1	0.0	0.1	1.3	1.0	0.4	0.0	0.0	0.5	0.2	0.0	0.0	2.5	0.0	0.0
Land purchase	0.0	1.4	0.1	8.4	7.0	1.3	24.8	16.6	18.2	3.0	0.0	0.0	3.8	4.8	2.1
Farm improvement[a]	0.0	3.9	1.1	2.3	0.4	4.4	..	..	..	..	..	..	..	..	..
Investment	..		..	24.2	0.6	4.7	..	..	..	..	..	..	..	..	..
Other	7.7	24.9	16.3	7.2	6.6	6.9	0.8	2.6	3.5	13.5	8.3	6.9	38.0	27.4	29.8

Source: Authors' calculations based on household surveys conducted in Burkina Faso, Kenya, Nigeria, Senegal, South Africa, and Uganda in 2009 as part of the Africa Migration Project and Ghana Living Standards Survey in 2005–06.
Note: .. = negligible or missing.
a. Includes agricultural equipment.

adult household member may put pressure on children to perform additional household chores or work on the family farm, reducing time for education. Evidence from other regions suggests that remittances can contribute to better school attendance, higher school enrollment rates, and additional years in school, especially for females.[16]

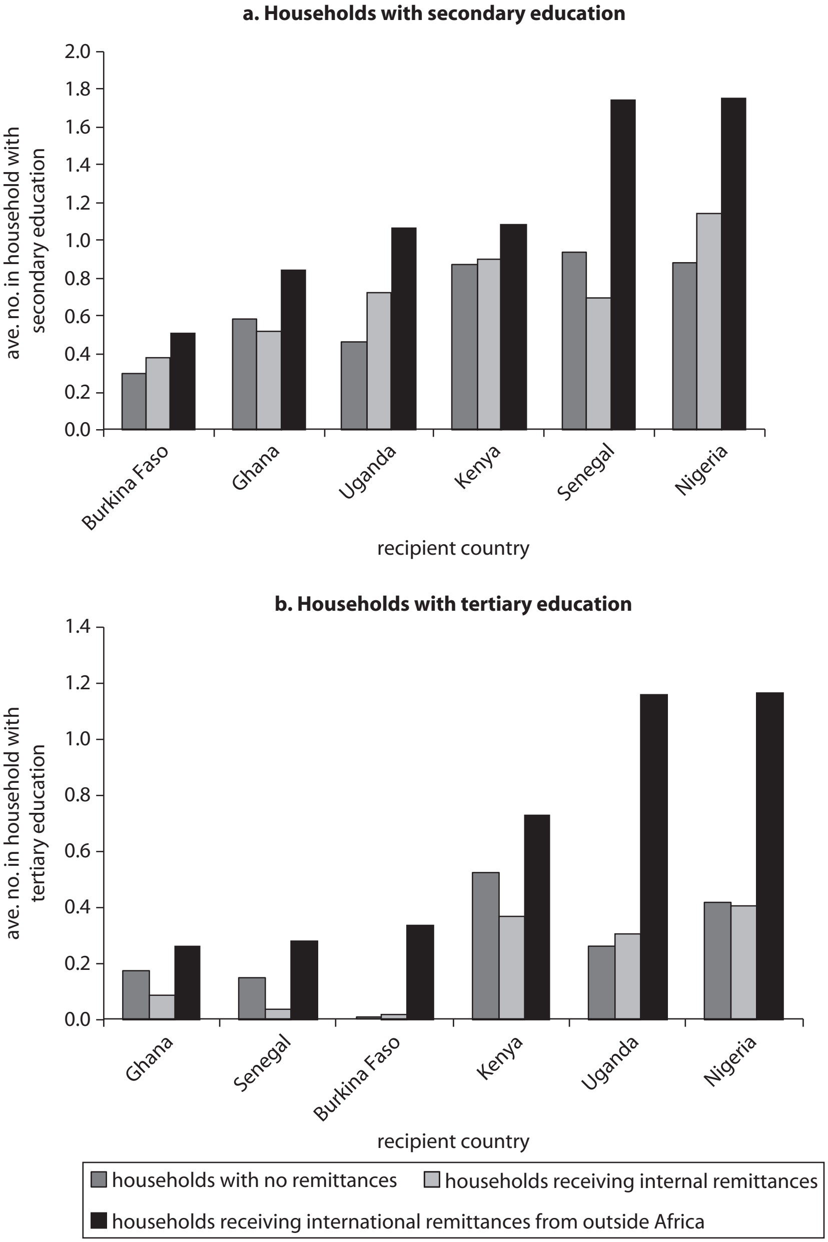
The paucity of household survey data means that the evidence on the impact of remittances on educational outcomes in Africa is relatively weak. In Egypt, children of remittance-receiving households were more likely than other children to enroll in university, and girls 15–17 in remittance-receiving households performed less domestic work and were more likely to be in school than other girls the same age (Elbadawi and Roushdy 2009). Remittance-receiving households in Ghana invested more in education than did other households (Adams, Cuecuecha, and Page 2008b).

Recent household surveys for Burkina Faso, Nigeria, Senegal, and Uganda conducted as part of the Africa Migration Project and an earlier survey in Ghana show that education was the second-highest use of remittances from outside Africa in Nigeria and Uganda, the third-highest in Burkina Faso, and the fourth-highest in Kenya, as seen in table 1.3. Households that receive international remittances have substantially more household members who have completed secondary and tertiary education than do other households, as figure 1.7 illustrates.

In Kenya and Uganda, households devote 15 percent or more of domestic and intraregional remittances to education; Nigerian households devote 20 percent of intra-Africa remittances to education. Although the amounts spent were much smaller than those from remittances from outside Africa, these figures indicate that a significant share of all sources of remittances goes to education. Although these findings do not control for the possible endogeneity of remittance-receiving status, they nevertheless suggest that remittances may help raise the level of resources devoted to education.

Remittances can contribute to better health outcomes by enabling household members to purchase more food and health care services and perhaps by increasing information about health practices. A cross-country analysis of 56 developing countries found that higher remittances per capita were associated with greater access to private treatment for fever and diarrhea and that remittances complemented foreign health aid in poor countries (Drabo and Ebeke 2010). A cross-country analysis of 84 countries (46 countries with quintile-level data) found that remittances reduced overall child mortality but tended to

Figure 1.7 Secondary and Tertiary Educational Attainment of Remittance Recipient and Nonrecipient Households, Selected Countries



Source: Africa Migration Project Household surveys in Burkina Faso, Kenya, Nigeria, Senegal, and Uganda in 2009 and Ghana Living Standards Survey in 2005–06.

be more effective in reducing mortality among children from the richest households than from the poorest households (Chauvet, Gubert, and Mesplé-Somps 2009).[17]

The evidence on the impact of remittances on health outcomes is rather sparse for Africa. Evidence from the household surveys above indicates that households dedicate 5–12 percent of remittances from outside Africa to health care, as seen in table 1.3. A similar share of within-Africa and domestic remittances is devoted to health expenditures, but the amounts spent are much lower because of the smaller average size of these remittances. Among households in Ghana that receive remittances from outside and within Africa, households headed by women spend more on health care than do households headed by men (Guzmán, Morrison, and Sjöblom 2007). In rural Mali, households receiving remittances increased demand for health services and were more likely to seek modern care (Birdsall and Chuhan 1986). A recent study using panel data for 1993–2004 for the KwaZulu-Natal province in South Africa finds that remittance-receiving households spent a larger budget share on food and health expenditures and that remittances enabled poorer households to access better-quality medical care (Nagarajan 2009).

Migration enables households to diversify their sources of income and thus reduce their vulnerability to risks such as drought, famine, and other natural disasters.[18] Migration and remittances have been a part of coping mechanisms adopted by African households facing shocks to incomes and livelihoods (Block and Webb 2001). During droughts in Botswana, families at risk of losing cattle and those relying on crops for their sustenance tended to receive more remittances than other families (Lucas and Stark 1985). Ethiopian households that receive international remittances were less likely than other households to sell their productive assets, such as livestock, to cope with food shortages (Mohapatra, Joseph, and Ratha 2009), as table 1.4 shows. Remittances in Ghana helped smooth the household consumption of rural farmers (Quartey and Blankson 2004; Quartey 2006).

In rural Mali, remittances responded positively to shocks suffered by recipient households (Gubert 2002, 2007). Surveys in the Senegal River Valley in Mali and in Senegal suggest that migration acts as an intrahousehold risk-diversification strategy, with remittances a contingent flow that supports family consumption in case of an adverse shock (Azam and Gubert 2005, 2006). Similar mechanisms for sharing risk through interhousehold transfers of cattle have been observed for East African pastoralists (Huysentruyt, Barrett, and McPeak 2009).

Table 1.4 Food Security Strategies and Remittances in Ethiopian Households
percentage of households using strategy to cope with food shortages

Food security strategy	*Households not receiving remittances*	*Households receiving domestic remittances*	*Households receiving international remittances*
Food aid	42.3	55.9	0.0
Sale of livestock and livestock products	40.5	3.9	0.0
Sale of other agricultural products	18.2	3.7	0.0
Sale of household assets	4.1	4.6	11.5
From own cash	10.3	5.3	31.3
Others	15.6	33	48.9

Source: Mohapatra, Joseph, and Ratha 2009.
Note: Column totals add up to more than 100 percent because households reported more than one response.

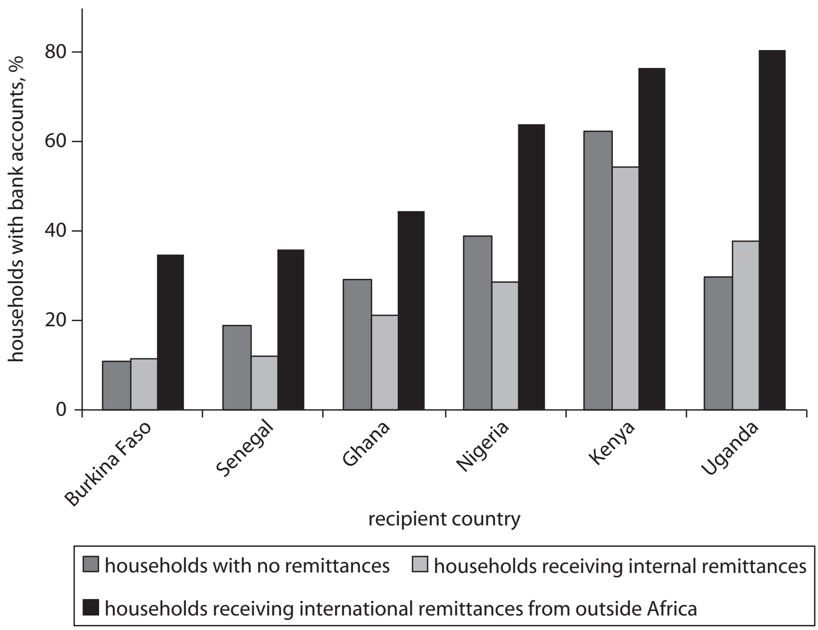
Remittances can also enable recipient households to build stronger and more resilient housing. Mohapatra, Joseph, and Ratha (2009) find that remittance-receiving households in Burkina Faso and Ghana were more likely to have a concrete house, after controlling for the possible endogeneity of the remittance-receiving status by using propensity score-matching methods.

Remittances can play an important role in improving access to information and communication technology. A household survey conducted as part of the Africa Migration Project shows that in Burkina Faso, 66 percent of international remittance recipients have access to a mobile phone compared with 41 percent of nonrecipients (as shown in annex 1.1, table 1A.1).[19] These households also have significantly higher ownership of radios (66 percent versus 39 percent), televisions (41 percent versus 9 percent), and computers (14 percent versus 2 percent). Households in Ghana, Nigeria, Senegal, and Uganda receiving international remittances also report having higher rates of access to mobile phones, radios, televisions, and computers.

Remittances are often the only relationship that many poor people have with the formal financial system. If remittances are received through banks or other financial intermediaries (such as microfinance institutions or savings cooperatives), there is a high likelihood that some part of the remittance will be saved (Aggarwal, Demirgüç-Kunt, and Martinez Peria 2006; Gupta, Pattillo, and Wagh 2009). Even if remittances are received through money transfer companies or informal providers, recipients may save the remittance in some type of financial institution rather than put it under the mattress. The steady stream of remittance receipts can also be used as a factor in evaluating the creditworthiness of recipients for microloans, consumer loans, and small-business loans (sought, for example, to purchase agricultural equipment) (Ratha 2007). Remittances also play a role in smoothing the income stream of poor households that face high income volatility and shocks. This reduced income volatility can make them more attractive borrowers.

Data from recent household surveys conducted as part of the Africa Migration Project and an earlier survey in Ghana reveal that households that receive international remittances typically have better access to financial services, such as bank accounts, as figure 1.8 shows. Households receiving domestic remittances tend to be worse off in terms of financial access than households receiving international remittances, in part

Figure 1.8 Household Bank Accounts in Selected African Countries, by Remittance Status
percentage of households



Source: Authors' calculations based on household surveys conducted in Burkina Faso, Kenya, Nigeria, Senegal, and Uganda in 2009 as part of the Africa Migration Project and Ghana Living Standards Survey in 2005–06.

because households that send out domestic migrants tend to be poorer. There are some notable exceptions, such as Kenya, where the widespread use of mobile money transfers and the ability to save using mobile phones has effectively substituted for formal banking services (see next section for a detailed discussion).

Remittance Markets in Africa

Remittance markets in Africa remain relatively underdeveloped in terms of their financial infrastructure and the regulatory environment. Surveys of African households and RSPs conducted in the context of the Africa Migration Project indicate three broad patterns:

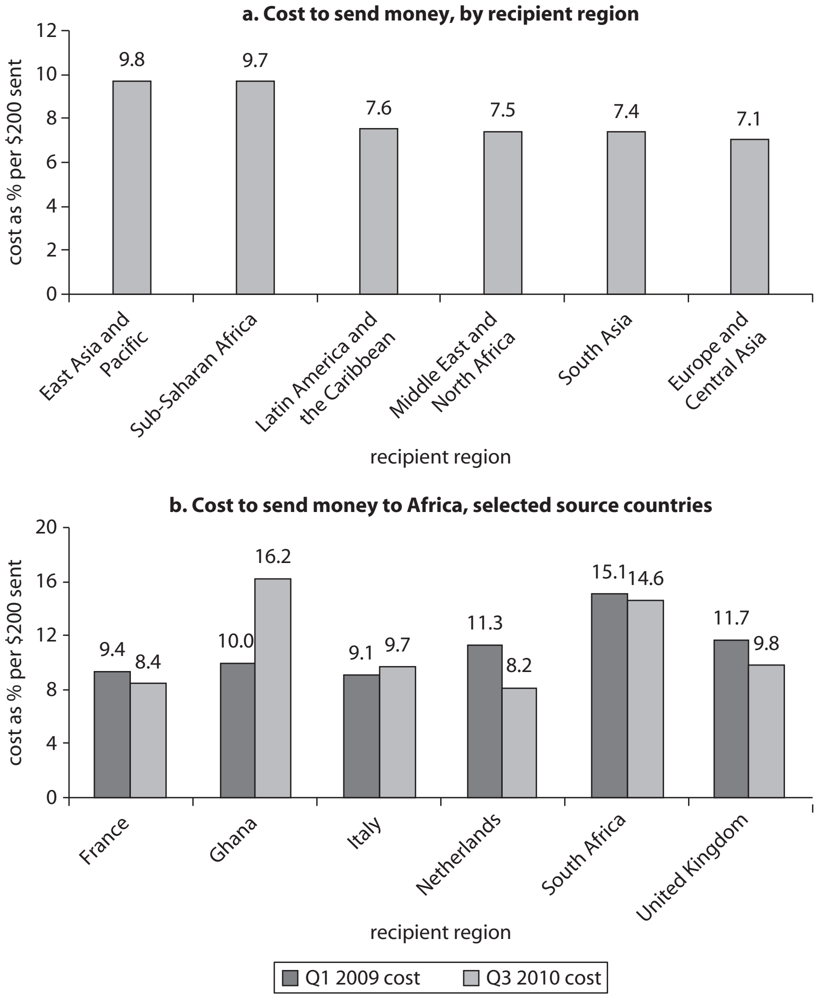
- Intraregional (south-south) and domestic remittances are sent overwhelmingly through informal channels. They are hand carried during visits home, sent through transport companies, or sent through informal *hawala* channels, in part because of limited access to and the high cost of formal financial (banking) services relative to average per capita incomes in African countries (Pendleton and others 2006; Tevera and Chikanda 2009; Bracking and Sachikonye 2008).

- A large share of remittances from outside Africa is channeled through a few large international money transfer agencies, which often work de facto or de jure in exclusive partnership with African banks and post offices (IFAD 2009).

- The rapid adoption of innovative mobile-money transfer and branchless-banking technologies is transforming the landscape for remittances and broader financial services in Africa (Morawczynski and Pickens 2009; Aker and Mbiti 2010). Although the adoption of these innovative technologies has been limited mostly to domestic money transfers (in part because of concerns about money laundering and terrorist financing related to cross-border remittances), the technologies have the potential to vastly improve access to both remittances and broader financial services, including low-cost savings and credit products, for African migrants and remittance recipients.

The cost of sending remittances to Sub-Saharan Africa and within Africa, however, is the second-highest among all developing regions, as shown in figure 1.9: only the East Asia and Pacific region has higher costs.

Figure 1.9 Cost of Sending Remittances to Developing Regions

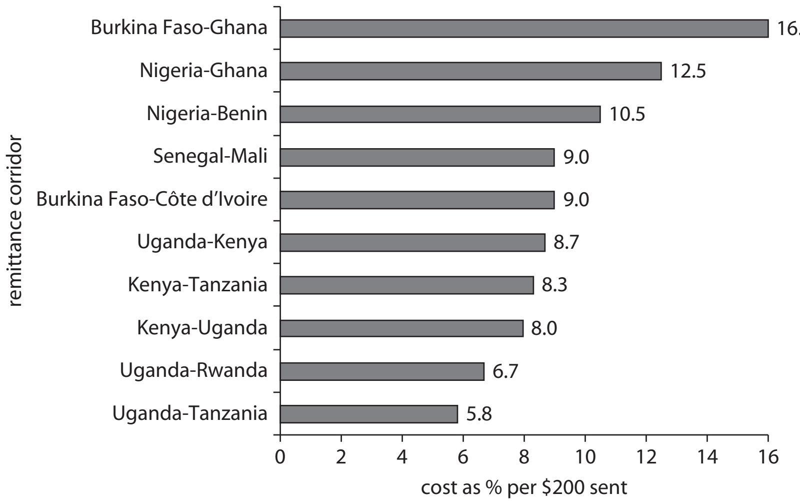


Source: Authors' calculations based on data from World Bank 2010b.
Note: Remittance cost includes fees and foreign exchange commissions.

In mature corridors such as those between the United States and Mexico, remittance costs can be as low as $5 per transaction; between the Persian Gulf and South Asia, the cost can be as low as $1.[20]

Data for select intra-African remittance corridors suggests that the cost of sending remittances within Africa ranges from 5 percent to 15 percent of the amount sent, as shown in figure 1.10. Large parallel market premiums

Figure 1.10 South-South Remittance Costs in Sub-Saharan Africa



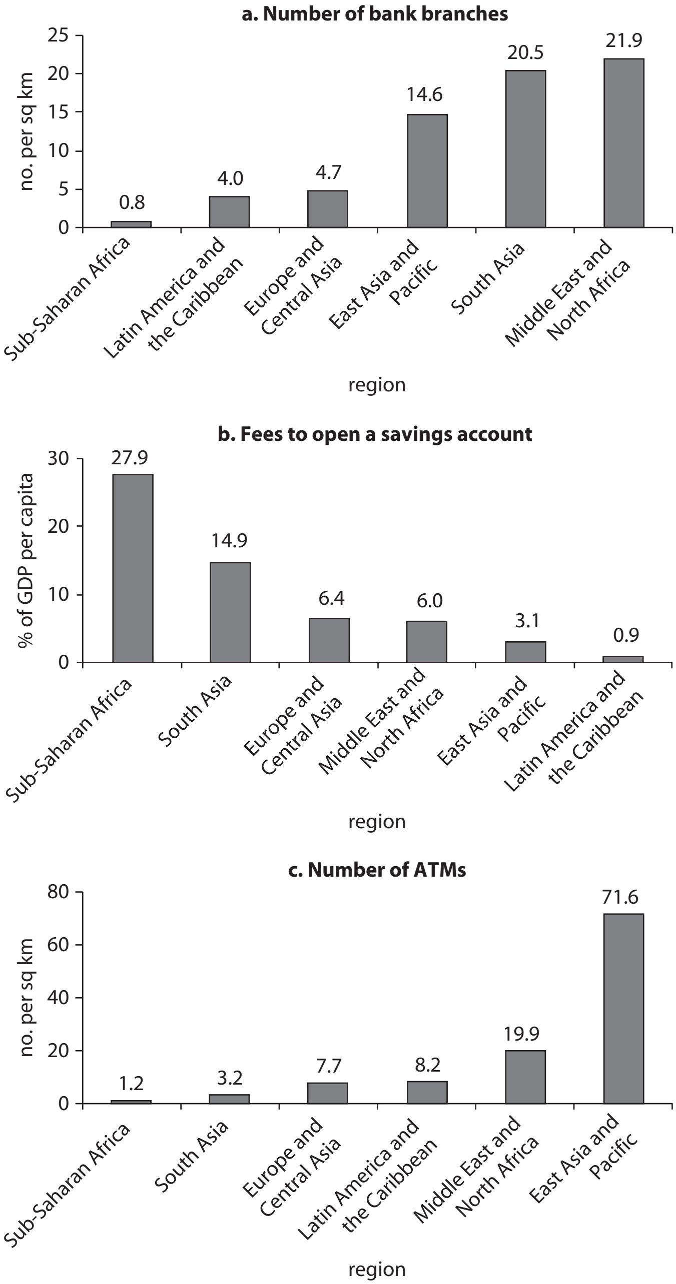
Source: Authors' calculations based on surveys of selected remittance service providers conducted at end of 2008.

between official and parallel market exchange rates in many African countries imply that the true cost is likely to be larger.

Surveys of RSPs in Africa suggest that the high costs of remittances in Africa is in part caused by exclusivity agreements between banks and international money transfer companies (IFAD 2009; Irving, Mohapatra, and Ratha 2010). Other studies show that such exclusive partnerships keep costs high for migrants and reduce the amounts sent, thereby limiting the development impact of remittances (Ratha and Riedberg 2005; World Bank 2006). Several African countries, including Ethiopia, Nigeria, and Rwanda, have taken steps to eliminate these partnerships in recent years.

These high remittance costs are also related to the low level of financial development in Africa (Aggarwal, Demirgüç-Kunt, and Martinez Peria 2006; Beck and Martinez-Peria 2009) and the small number of firms handling remittance transfers (IFAD 2009, Orozco 2009).[21] The cost of banking services tends to be high relative to income levels in African countries, and the reach of banks outside of urban areas is limited (Demirguc-Kunt, Beck, and Honohan 2008).[22] For example, the average fee to open a savings account is 28 percent of the average African's annual income—compared with less than 1 percent in countries in Latin America and the Caribbean, as shown in figure 1.11. The number of bank

Figure 1.11 Banking Networks and Costs, by Region



Source: Authors' calculations based on data from Demirgüç-Kunt, Beck, and Honohan 2008.
Note: GDP = gross domestic product. ATM = automatic teller machine.

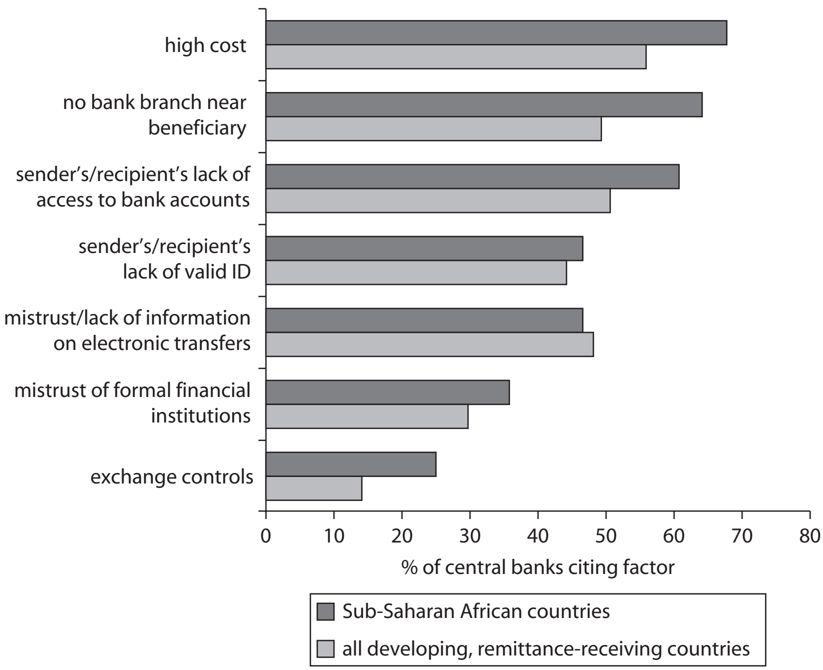
branches and automatic teller machines (ATMs) per square kilometer is lower in Sub-Saharan Africa than in any other developing region.

High remittance costs represent an unnecessary burden on African migrants. In a recent survey, almost 70 percent of central banks in Sub-Saharan Africa cited high costs as the most important factor inhibiting the use of formal remittance channels (Irving, Mohapatra, and Ratha 2010), as figure 1.12 shows. Evidence based on surveys and field experiments suggests that remittance flows respond to reductions in costs (Gibson, McKenzie, and Rohorua 2006; Martinez, Aycinena, and Yang 2010). Reducing remittance costs can lead to increases in the remittances sent by migrants, in turn increasing the resources available to recipient African households.

Issues in Remittance Source Countries

Surveys and interviews of RSPs in key migrant destination countries (France, the United Kingdom, and the United States) reveal that African

Figure 1.12 Factors Inhibiting Use of Formal Remittance Channels



Source: Irving, Mohapatra, and Ratha 2010.

migrants' lack of access to formal financial services and required identification, exclusive partnerships, and regulations related to anti-money-laundering and combating the financing of terrorism (AML-CFT) also raise the costs of transferring money to Africa.[23] Most transfers from destination countries outside Africa are sent as cash through money transfer companies or through banks that are acting as agents of money-transfer companies, rather than potentially cheaper account-to-account and cash-to-account transfers because (a) remittance senders lack access to banking facilities, perhaps due to inadequate identification requirements; (b) banking services are too costly in the remittance-source countries and in recipient countries in Africa; and (c) African banks lack branches or representative offices in the destination countries, and vice-versa. Some West African banks have representative offices in France and operate through partnerships with French banks (see chapter 10 by Ponsot) but the range of services provided appears to be small. Many West African migrants in France appear to prefer to send money through friends, relatives, or even community groups.

Exclusivity partnerships are also found in some remittance source countries. The French postal service has an exclusive partnership with Western Union (see chapter 10 by Ponsot). Although documented remittance costs are among the lowest for France-Africa corridors, such partnerships can limit competition and the access of migrants to alternative RSPs. U.S. regulations aimed at AML-CFT implemented after September 11, 2001, have made it more difficult for smaller RSPs to access banking and settlement facilities for the transfer of remittances to Africa. Mainstream U.S. banks appear to be wary of having money transfer operators—particularly from East Africa and other African subregions—as clients.

Regulations in destination countries could encourage greater transparency in remittance markets. For example, the United States is requiring the disclosure of prices and exchange rate commissions by remittance providers, establishing error resolution mechanisms for consumers, and encouraging access by low-income consumers. Although the U.S. government has recently undertaken these and other measures to reduce remittance costs, improve consumer protections related to remittances, and leverage remittances for improving financing of infrastructure projects (such as the BRIDGE initiative discussed earlier), differences in legal and regulatory frameworks, compliance requirements, and institutions governing remittances across the U.S states make the exercise of implementing national-level policies on remittances challenging (Andreassen 2006). There is need for a national-level institutional focal point for remittances in the United States. A similar initiative to improve transparency, competition, and consumer protection in remittance markets is under way in Europe under the EU's Payment Services Directive (see chapter 11 of this volume).

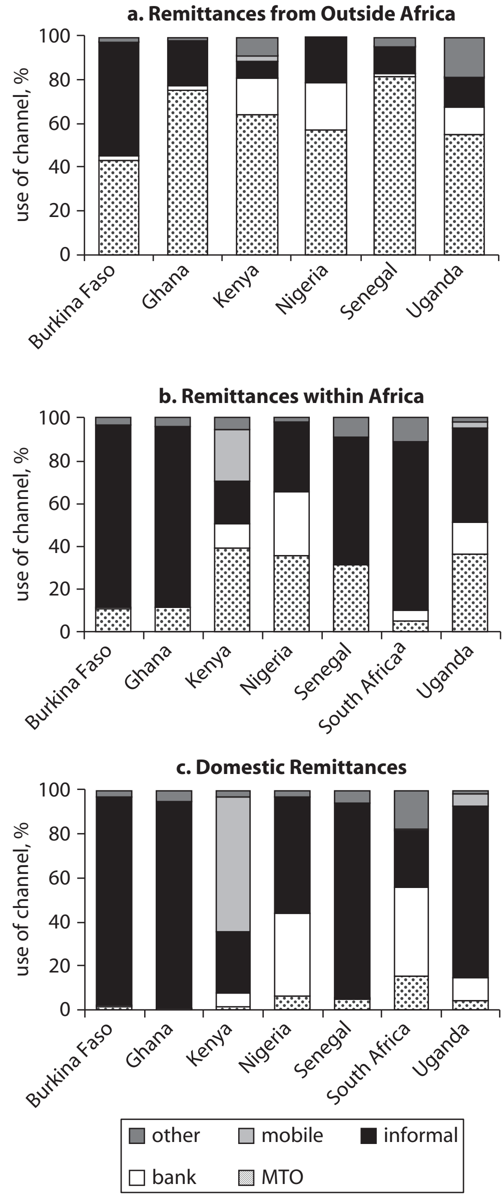
Remittance Channels in Africa

The high cost and limited reach of formal channels, along with the informal and seasonal character of African migration, results in the large role that informal channels (money carried during visits, sent through friends and relatives, sent through the *hawala* system, through settlement of small trade transactions, and carried by buses and transport companies) play in African remittances. Some estimates suggest that the prevalence of informal transfers is the highest in Africa among all developing regions (Page and Plaza 2006; Ratha and Shaw 2007). Surveys conducted in Southern Africa in 2004–05 found that carrying remittances by hand during visits home accounted for about half of remittance transfers in southern Africa: remittances carried by hand and sent through friends and relatives accounted for 68 percent of remittances in Botswana, 88 percent in Lesotho, 73 percent in Swaziland, and 46 percent in Zimbabwe (Pendleton and others 2006; Tevera and Chikanda 2009; see also Bracking and Sachikonye 2008 for evidence from Zimbabwe on the increasing reliance on informal channels during a period of hyperinflation).[24]

Recent household surveys conducted in the context of the Africa Migration Project in 2009 and an earlier survey in Ghana show some country variation in the importance of informal channels. The share of households receiving within-Africa remittances through informal channels was 60 percent or more in Burkina Faso, Ghana, and Senegal, as shown in figure 1.13 and annex table 1A.2. Among migrants in South Africa sending remittances to other African countries. mostly within the Southern African region, the share of those using informal channels was close to 80 percent. The share of households receiving within-Africa remittances that used informal channels was only 24 percent in Kenya (the only country of the five with extensive reliance on transfers through mobile phones—24 percent of within-Africa remittances); 33 percent in Nigeria, where banks are more widely used than in the other countries; and 44 percent in Uganda with money transfer operators and banks accounting for the remaining half.

Informal channels were even more prevalent for domestic money transfers (95 percent for Burkina Faso, 94 percent in Ghana, 95 percent

Figure 1.13 Formal and Informal Remittance Channels in Africa



Source: Africa Migration Project Household surveys in Burkina Faso, Kenya, Nigeria, Senegal, South Africa, and Uganda in 2009, and Ghana Living Standards Survey in 2005–06.

Note: MTO = money transfer operator.

a. Channels used for remittances sent from South Africa to other African countries.

in Senegal, and 78 percent for Uganda), also shown in figure 1.13 and annex table 1A.1). In relatively prosperous South Africa, informal remittance channels account for only a quarter of domestic remittances, in part because a well-developed financial system and recent efforts to improve financial inclusion, such as the introduction of the Mzansi scheme, where South African banks provide basic, low-cost banking accounts: banks in South Africa now account for 41 percent of domestic remittances and money transfer companies for 16 percent. Similarly, in Nigeria which has a better banking infrastructure than most other African countries, banks accounted for more than one-third (37 percent) and money transfer companies for 6 percent.

The most prominent exception to the view of domestic remittances in Africa being sent through mostly informal channels is Kenya, where nearly two-thirds (62 percent) of domestic remittance transfers were conducted through mobile phones at the time of the household survey in late 2009, as figure 1.13 shows. The next section recounts the transformation of the domestic remittance landscape in Kenya since the introduction of the M-PESA mobile money service early 2007. Uganda has also seen from the introduction of mobile money transfers, with 5 percent of domestic remittances conducted by mobile phones at the time of the survey in the second half of 2009. This share is likely to have increased subsequent to the survey.

Formal channels for both remittances from outside Africa and within the region were heavily dominated by money-transfer companies (mostly Western Union). In particular, only about 2 percent of households receiving remittances from outside Africa use banks, although the share is slightly higher in Kenya (16.2 percent), Nigeria (22.3 percent), and Uganda (12.5 percent). The role of other intermediaries—including post offices, microfinance institutions, savings and credit cooperatives, and new technologies such as Internet transfers and mobile money transfers—is even more limited for international remittances from outside Africa. By contrast, the share of households using informal channels for remittances from outside Africa was less than 21 percent in five of the six countries surveyed on receipt of remittances (the exception was 52 percent in Burkina Faso).

Mobile Money Services for Domestic Remittances

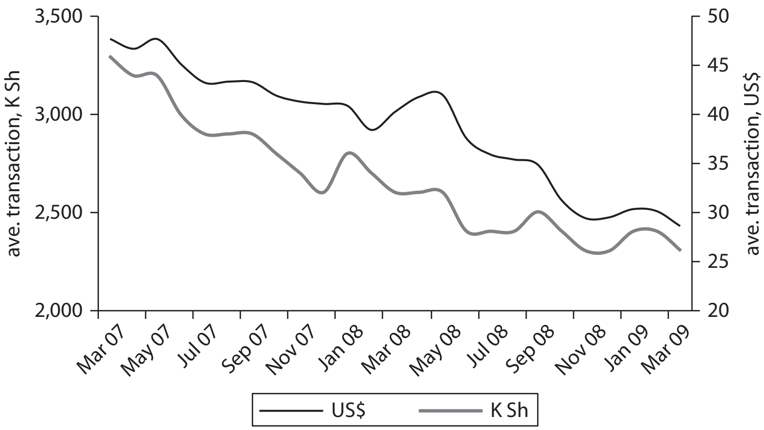
The availability of the M-PESA mobile money service has brought about a profound change in the types of domestic remittance channels used by Kenyans in the relatively short time span since its introduction in March

2007 (Pulver, Jack, and Suri 2009; Joseph 2010; Mas and Radcliffe 2010). Surveys by Kenya's Financial Sector Deepening (FSD) found that the most commonly used means of sending money within Kenya in 2006 were by hand (58 percent), bus (27 percent), post office and money order (24 percent), direct deposit (11 percent), and money-transfer service (9 percent). By 2008, M-PESA had come to dominate domestic remittances, with 47 percent of Kenyans using this service, while the share of remittances sent by hand and by transport companies decreased to 32 percent and 9 percent, respectively. Reliance on mobile-phone transfers dramatically reduced the need for domestic migrants to travel home to deliver money by hand or send it by bus or transport company.

The use of mobile phones to transfer money has also enabled recipients to send smaller amounts of money but more often (and collectively more), in response to lower costs because of the greater accessibility of M-PESA agents. As figure 1.14 illustrates, the average transaction size decreased by 30 percent between March 2007 and March 2009 from 3,300 Kenya shillings (about $41 at prevailing exchange rates) to 2,300 Kenya shillings (about $29) (Morawczynski and Pickens 2009; Pulver, Jack, and Suri 2009).

Mobile money-transfer services are now increasingly used for savings. More than one-fifth (21 percent) of respondents in the 2008 FSD survey reported using electronic money (e-money) on their mobile phones for storing or saving money for everyday use and for emergencies. Safaricom,

Figure 1.14 Average M-PESA Transaction Size, March 2007–March 2009



Source: Pulver, Jack, and Suri 2009.
Note: K Sh = Kenya shillings.

in partnership with Kenya's Equity Bank, recently launched a mobile savings account, "M-Kesho," that provides access to interest-bearing savings accounts and access to the ATM network of Equity Bank. Other firms such as Zain are now competing with M-PESA in Kenya to provide similar services. In neighboring Uganda, Zain and MTN's mobile money services have more than a million users (*Business Daily Africa* 2010).

Similar mobile money-transfer and mobile banking services have expanded to other countries and subregions in Africa. The mobile operator Zain, with operations in 15 African countries and 42 million subscribers, offers Zain Zap, a mobile remittance service that, in addition to money transfers, also offers services such as payments for bills and groceries (*Economist* 2010).[25] Orange Money offers mobile money transfers in a number of West African countries, including Côte d'Ivoire, Madagascar, Mali, and Senegal.[26] In Benin in West Africa, mobile operator MTN and Ecobank have launched a service that allows users to open accounts and to transfer, deposit, and withdraw money. In Sierra Leone, Splash mobile money service was introduced in September 2009 and gained more than 150,000 clients within a year (*Awareness Times* 2010). In South Africa, Wizzit offers person-to-person mobile money-transfer services and works in partnership with the mainstream ABSA Bank and the South African post office to provide banking facilities, including access to point-of-sale devices and debit cards that can be used at ATMs.[27]

Mobile money technologies are being mostly used for domestic money transfers in Africa and other regions, but their use for cross-border remittances is still nascent (see CGAP and Dalberg 2010 for some examples). This is in part because of concerns related to money laundering using cross-border transfers but also because of insufficient maturity of branchless-banking infrastructure on the receiving end and lack of customer awareness and trust in new services (Bold 2010).

Some telecommunications firms that operate across countries are starting to offer cross-border remittances in certain subregions. In East Africa, for example, Zain Zap (in partnership with CitiBank and Standard Chartered Bank) allows its customers to send money to any bank in Kenya, Tanzania, and Uganda and to receive money from any bank account in the world. In West Africa, where members of the West African Economic and Monetary Union have a common central bank and similar monetary regulations, cross-border mobile money-transfer services do not appear to be functional. Mobile money transfers being piloted in partnership with international money transfer companies (for example, from the United Kingdom and the United States to M-PESA mobile money accounts in

Kenya) are almost identical to cash-based remittances for the remittance sender and have a similar cost structure, with the difference that the remittance is deposited into the mobile money account of the recipient.

Even within this limited scope, the deposit of cross-border remittances directly into the mobile money account of the recipient has potentially significant advantages over traditional cash-based money transfer services. It increases the reach of remittance services because the recipient can withdraw the remittance at domestic money transfer outlets. In Kenya, for example, the international RSP can piggyback on the vast network of M-PESA agents, greatly reducing, if not eliminating, the need to build a costly network for distribution of international remittances or to form alliances with banks or post offices. For the recipient, receiving remittances directly into a mobile money account obviates the need to travel to the nearest town or outlet of the money transfer operator to receive cash.

Money transfers through mobile phones raise the issue of whether telecommunications or banking regulators should regulate these services. Kenya's M-PESA was allowed to operate with little regulatory oversight and few reporting requirements in its initial years. Regulators appear to be learning how to deal with this innovation. There is considerable variation in the experience of countries with mobile money services in Africa and other regions.[28] Regulatory "forbearance" may allow new technologies to scale up rapidly, but it can expose the financial system to systemic risk if the volume of transactions flowing through the mobile money transfer system is large and the deposits are stored in one or two financial institutions. The issue of how to regulate and create a level playing field between mobile network operators and banks is becoming more important as banks enter the mobile money space. Another issue is how to replicate the Kenyan example in other African countries where telecommunications infrastructure is less developed and operators are state monopolies.

Developing a robust and efficient regulatory framework that provides clear guidelines, expands permitted points of service (such as retail agents), reduces reporting requirements for small-value cross-border transactions, and eliminates requirements for proof of legal residence to set up a bank account can facilitate mobile money transfers (Maimbo, Saranga, and Strychacz 2010). Learning from the experiences of countries such as Brazil and the Philippines can help African countries come up with innovative regulatory solutions.[29] Some pilot projects are attempting to bridge the divide between community-based pooled remittances and the use of Internet and mobile technologies. Some service providers are attempting to use Internet-based technologies to transfer remittances from France to villages in Mali, West Africa (see Chapter 10 by Ponsot).

Postal Services' Role in Improving Access to Remittances and other Financial Services

Post offices typically have strong networks in both urban and rural areas, with significant potential to reach poor populations. They also have the right business model of serving the poor. While commercial banks are inaccessible to the poorest in many countries, post offices are typically more familiar and more accessible. In a recent study, Clotteau and Anson (2010) of the Universal Postal Union estimate that more than 80 percent of post offices in Sub-Saharan Africa are located outside the three largest cities, in areas where more than 80 percent of people in the country live. This stands in sharp contrast to the mainstream commercial banks that are usually concentrated in the largest cities in Africa. This provides postal networks a unique opportunity to become key players in both international and domestic remittances—and to bring the unbanked into the formal financial system.

However, posts in Africa face operational risks in handling cash, inadequate training, and outdated information technology systems (Clotteau and Anson 2010).[30] For very small remittances, the application of anti-money-laundering regulations is not proportional to the risk raised by such transactions and hinders the reduction of remittance fees. Also, most post offices are not connected to national clearing and settlement systems, which considerably limits their efficiency. Furthermore, a number of posts are prevented from collecting savings, which is a natural complement to remittance services. And most postal operators are government public corporations or government departments. Perhaps most important, exclusivity arrangements of some post offices in Africa with international money-transfer companies prevent effective competition in the remittances market. These agreements can also include offices that are not providing any remittance service or where the partner of the post will never deploy the service. Last, in some instances, the post is regulated by the postal regulator for international money orders and by the financial regulator for account-based services.

Policies for Leveraging Remittances for Development

This section outlines policies to improve the quality of data on remittances; reduce costs and improve transparency in remittance markets;

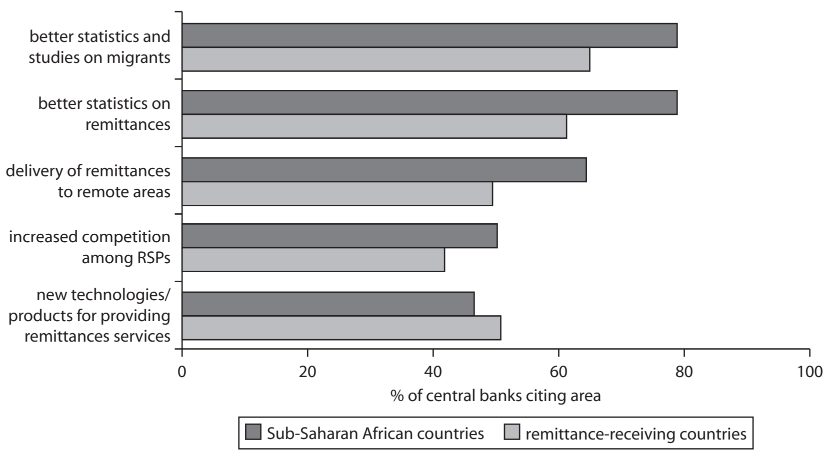
encourage innovative money-transfer technologies; use remittances to improve access to capital markets; and cope with large remittance inflows.

As shown in figure 1.15, most central banks in remittance-receiving countries in Sub-Saharan Africa cited *better statistics on migration and remittances* and *improved delivery to remote areas* as the top issues needing attention to promote more efficient and secure transfer and delivery of migrant remittances (Irving, Mohapatra, and Ratha 2010).

Data collection on remittances is also receiving attention from the international community: the G-8 Global Remittances Working Group lists improving remittance data collection as one of its four thematic areas (World Bank 2009). African central banks and statistical agencies can improve data collection by expanding the reporting of remittances from banks to nonbank providers of remittance services (such as money-transfer companies, post offices, savings cooperatives, and microfinance institutions); using surveys of migrants and recipient households to estimate remittance flows through formal and informal channels; and asking labor ministries and embassies in destination countries to provide estimates of remittance flows and the associated costs paid by migrants (see also IMF 2009 for further recommendations).

Policies designed to increase financial sector development—for example, by encouraging greater competition among banks and by promoting alternative providers such as microfinance institutions, credit cooperatives,

Figure 1.15 Top Remittance Areas Needing Attention in Sub-Saharan Africa



Source: Irving, Mohapatra, and Ratha 2010.
Note: RSP = remittance service provider.

and postal savings banks—are likely to have a beneficial impact on the market for remittances.

Increasing the role of African post offices in remittances can be facilitated by several policy measures. African post offices can partner with destination-country post offices, banks, and money-transfer companies to extend existing domestic money-order facilities to international remittances. Better coordination among the various regulating entities should be promoted to ensure better consumer protection. Other measures include inclusion of financial services in the definition of universal service of post offices; connecting post offices to high-speed Internet and creating integrated management information systems; encouraging basic savings accounts where remittances can be paid, small savings deposited, and payments processed; and integrating new technologies into their operations. Some mobile money-transfer operators, such as Wizzit in South Africa and M-PESA in Kenya, are actively working with post offices and postal savings banks as their agents.[31] A clear policy recommendation for post offices in Africa to more effectively participate in remittances is to eliminate exclusive partnerships and encourage African post offices to partner with more money-transfer companies (and even banks). This will put downward pressure on costs. This recommendation has already led to policy changes in some African countries[32] and has been implemented by the Central Bank of Nigeria and by Rwandan authorities.

African rural banks, savings cooperatives, and microfinance institutions can also play a similar role in improving access to formal remittance (and financial) services. Money transfers can act as an entry point for providing remittance senders and unbanked recipients in rural areas other financial products and services such as deposits, savings, and credit facilities. Measures to encourage the participation of savings and credit cooperatives, rural banks, and microfinance institutions in providing remittance services will help to improve financial access. A similar recommendation—to eliminate exclusive partnerships and allow multiple partnerships for sending and delivering remittances—also applies to rural banks and microfinance institutions.

Disseminating information about remittance channels and the costs of sending money to Africa would increase transparency and competition in the remittance industry, thus encouraging lower prices and new entrants while fostering the increased use of formal channels. Following the success of a U.K. remittance price database, France, Germany, Italy, the Netherlands, Norway, and New Zealand have commissioned websites that provide information on available channels. The World Bank has launched a Remittance Prices Worldwide database with over 150 remittance corridors (World Bank 2010b).

In addition to national and global price databases, information on remittance channels and costs should also be provided in published form (for example, pamphlets) to emigrants at airports before departure, during predeparture orientation and training, and at embassies and associations in destination countries to reach migrants without access to the Internet. It can also be made available through central banks, labor ministries, foreign employment bureaus, and recruitment associations in origin countries.

Measures that would encourage the expansion of mobile phones to cross-border remittances include (a) harmonizing banking and telecommunications regulations to enable mainstream African banks to participate in mobile money transfers and for telecommunications firms to offer microdeposit and savings accounts; (b) simplifying AML-CFT regulations for small-value transfers; and (c) ensuring that mobile distribution networks are open to multiple international RSPs instead of becoming exclusive partnerships between an international money transfer operator (MTO) and country-based mobile money services. Also, the implications of such exclusive partnerships for the price structure of mobile money services should be examined; the price of mobile money services appear to be similar to that charged for sending cash remittances, despite the fact that reliance on mobile-phone transfers reduces the need to build a costly distribution network.

Policy makers in Sub-Saharan Africa should be more alert to "Dutch disease" in countries where remittances inflows are large compared with the size of the economy, where supply constraints are a significant hindrance to the expansion of the nontradeable sector, and where a significant portion of remittances are spent on domestic goods, especially nontradeables (Gupta, Pattillo, and Wagh 2009). Countries should adjust to large remittance inflows that are likely to be permanent by maintaining market-based exchange-rate policies, taking steps to support the production of tradeables that might be harmed due to exchange rate overvaluation (for example, through infrastructure investments), and reducing labor and product market rigidities that impair competitiveness. Large inflows that are likely to be temporary can be sterilized, although the cost of sterilization can be high. Meanwhile, the resulting rise in domestic interest rates can attract more capital inflows, placing further pressure on the exchange rate (Fajnzylber and Lopez 2007). It can be difficult to distinguish between temporary and permanent levels of remittance inflows, although because remittances tend to be relatively stable, "Dutch disease" effects are of less concern than for natural resource windfalls and other cyclical flows.

Overview of Remittance Market Surveys in Africa and Key Destination Countries

This section provides an overview of the studies—presented in the remainder of this volume—of remittance markets in African countries and in key destination countries of African migrants. These country studies are based on primary surveys of a wide range of RSPs, including commercial and state-owned banks, MTOs, exchange bureaus, post offices, savings and credit cooperatives, microfinance institutions, telecommunication companies, retail stores, travel agencies, and informal providers such as transport companies. Similar issues of cost, competition, and regulatory environment are examined from the perspective of the providers, but the focus is on (a) understanding the regulatory, market, and institutional constraints in the sending of remittances, and (b) discussion of recent policy initiatives to improve transparency, consumer protection, and competition in remittance markets in the sending countries.

Chapters 2–9 present the findings of remittance market studies of the following Sub-Saharan African countries: Burkina Faso, Cape Verde, Ethiopia, Ghana, Kenya, Nigeria, Senegal, and Uganda. Chapters 10–11 present studies of remittance markets in two key remittance source countries outside the African continent: France and the United Kingdom. Summarized below are some of the policy-relevant findings of each country study.

Yiriyibin Bambio in chapter 2 discusses the remittance market in ***Burkina Faso***— a major source of intraregional migrants in the West Africa subregion. An estimated 1.6 million recorded emigrants live outside the country, with large numbers going to Côte d'Ivoire, Niger, and Mali within the subregion and to Italy and France outside the region (World Bank 2011). Despite the large volume of migration, Burkina Faso received only $43 million in officially recorded remittances in 2010 (less than 1 percent of GDP) mainly because of the prevalence of informal channels. The study finds that the remittance industry in Burkina Faso operates within the broader regional regulatory environment of the West African Monetary Union. Although formal remittance channels (such as Western Union, Moneygram, and MoneyExpress) are faster and more secure, they are also more expensive for the customer and do not adequately reach rural areas, which often lack electricity and computer access.

The Burkina Faso survey also found that although remittance firms do not consider regulations (centered on anti-money-laundering, tax policy, and exchange controls) to constitute a significant barrier to entry, they do consider regulations to be significant impediments to business activities. There are also inefficiencies in the clearing and settlement system and lack of adequately trained staff, which can create difficulties in compliance and in fulfilling Know-Your-Customer (KYC) requirements. As a consequence, remittance costs remain high, and informal providers continue to coexist with formal providers. However, some Burkinabè banks are active in the destination countries of migrants (for example, in Côte d'Ivoire and Italy) and facilitate the transfer of funds and savings of Burkinabè migration back to their home country.

Recommendations to improve the efficiency of remittance markets include developing prepaid cards and mobile money transfer; encouraging Burkinabè banks with branches or representative offices in destination countries to provide savings, investment, and money transfer products to Burkinabè migrants; dialoguing with migrant communities to understand their money transfer and investment needs; creating more transparency in the clearing and settlement system of banks with their agents and subagents; and training to improve the KYC compliance of nonbank money transfer operators.

In chapter 3, Georgiana Pop provides an overview of the remittance market in ***Cape Verde***, a small country with the highest emigration rate in Africa at 38 percent of the population (World Bank 2011). Cape Verde received $144 million in remittances in 2010, about 9 percent of its GDP. Around two-thirds of families in Cape Verde receive money from abroad, mainly from Portugal, France, the United States, and the Netherlands. The survey finds that the industry is dominated by four private banks and one exchange office; two banks in partnership with MTOs such as Western Union and MoneyGram account for more than 90 percent of the market. However, there significant inefficiencies, with banks lacking significant branch networks in rural areas and the country lacking microfinance institutions.

Although the banks in Cape Verde provide a range of deposits, saving products, loans, credit cards, and mortgages, which can contribute to financial deepening, fees for sending domestic and international outward remittances are high relative to the incomes of the poor, which limits their access to such services. The RSPs perceive the regulatory and business environment as favorable to conducting a remittance business, and they comply with minimum capital requirements and regulations on reporting requirements for suspicious activities and large currency transactions. Access to finance for banks and nonfinancial institutions, in terms of availability, costs, and competition from the informal sector, are perceived as moderate obstacles to doing business by 60 percent of RSPs.

Some specific recommendations to improve the efficiency of remittances in Cape Verde include requiring RSPs to report outward and inward remittance flows separately (instead of a net flow); improving statistics on intra-African and within-country remittance flows; better estimating the size of the informal remittance market; setting up microfinance institutions, new money-transfer technologies, such as prepaid cards or mobile-phone banking; encouraging the entry of nonbank providers to stimulate competition and help to reduce overall transaction fees; and developing diaspora bonds, the securitization of remittances to leverage migration and remittances for investment, and financial products targeted at migrants.

Alemayehu Geda and Jacqueline Irving find in chapter 4 that, despite the contribution of remittances to ***Ethiopia's*** external financing position, there are many barriers in the effective delivery of remittances. A low level of financial intermediation and the lack of a modern national clearing and settlement system are seen as challenges. Most Ethiopian banks are concentrated in the major cities, and the bank branch and ATM networks are very limited, with little coverage of rural areas. Ethiopia also appears to be behind other East African countries such as Kenya and Uganda in the development and use of mobile money transfers and in providing remittance-linked financial services. This is partly because of Ethiopia's relatively underdeveloped financial system and a weak telecommunications infrastructure. Most remittances appear to be either consumed or invested in real estate, which offers higher returns than savings deposits and other financial instruments in a high-inflation environment.

Policy recommendations for improving the remittance market in Ethiopia include expediting the process for obtaining a license; facilitating entry of new players; establishing a national real time gross settlement funds-transfer system; introducing more competition and reducing barriers to entry in the telecom sector to encourage firms to use mobile money transfer services; granting post offices and MFIs access to clearing and settlement systems to expand access to rural areas and increase competition; and frequently updating the information on available remittance channels and costs to assist Ethiopian migrants.

Peter Quartey finds in chapter 5 that ***Ghana's*** regulatory environment governing remittances services is generally effective and that current laws and regulations do not present major challenges to RSPs' business operations. However, banks have gained a progressively larger share of the remittance market in Ghana because of the introduction of universal banking, the population's greater trust in banks than in nonbank financial institutions, and the banks' extensive presence in rural areas.

The establishment of a National Switch (E-Zwich) as a common payment platform will enable the integration of existing bank switches and reduce costs of money transfers. An E-Zwich debit card has been introduced on a pilot basis for payments of salaries and other government assistance, and it is expected that financial institutions will launch a product that will enable remittance recipients to access money transfers through the card. There is currently little adoption of mobile money transfers in Ghana, but high mobile-phone penetration suggests potential for development of this sector. Similarly, the completion of a fiber-optic backbone and fall in Internet costs could encourage people to use Internet transfers.

Financial sector reforms have made it easier for institutions to engage in remittance services. However, informal remittance services, such as hand carrying, sending through friends and relatives, and incorrect invoicing of cross-border trade transactions, continue to be significant. Because inward remittances can be paid out only in local currency, while outward remittances are not permitted, informal firms have an opportunity to thrive.

Rose Ngugi summarizes of the remittance market in chapter 6 on ***Kenya***, which has been in the spotlight for its rapid adoption of mobile money transfers; the largest provider, M-PESA, acquired more than 12 million customers within four years of its launch in early 2007. The study finds that although Kenya has a diverse range of RSPs, the role of informal channels (such as transport companies) has declined with the increasing popularity of mobile money. And while the cost of maintaining an account is prohibitive and constrains the demand for other financial services for remittance clients, mobile money transfer services in recent years have provided banking services in partnership with banks, including savings accounts and bank account management through the mobile phone service.

The cost of international remittances is significantly high across the various providers, and the rate charged for sending $200 ranges between 8 percent and 18 percent for international transfers. The use of mobile money is mostly used for domestic remittances. Although there have some pilot projects for international money transfers in partnership with international money transfer companies, the costs appear to be similar to conventional cash transfers, and the amounts transferred appear to be small compared to that sent through mobile phones.

Chukwuma Agu provides an overview in chapter 7 of the remittance market in ***Nigeria***, the largest remittance recipient in the African continent. The study finds that remittances have outpaced FDI, official development assistance, and other inflows into the country, and are second only to oil exports as a foreign exchange earner for Nigeria. However, it also finds that the remittance market in Nigeria is not yet well managed.

International money transfer companies play a dominant role, with Nigerian banks acting as intermediaries and distributors of remittances. Remittance transfers are expensive—as high as 20 percent for inward remittances—and the instruments quite limited beyond cash-to-cash transfers. Remittance services are seldom linked to regular bank services in a way that could promote improved use of remittance funds or access to other services on account of regular transfers. Outward-bound remittances are highly regulated, and limits are placed on transactions, while internal remittances can be expensive except for account-to-account transfers within the same bank.

Even though recent reforms have regularized the activities of foreign exchange bureaus, they are not allowed to handle remittance transactions. The use of mobile money transfers and card-based remittances is small compared with other countries in East Africa. There continues to be a large informal sector. The official remittances data do not adequately differentiate between migrant remittances and other small-value transfers related to trade and other payments.

Recommendations to increase competition and reduce cost in Nigeria's remittance market include enforcing recent regulation to expunge exclusivity from contracts among RSPs; encouraging banks to open outlets in remittance-source countries; regulating maximum chargeable fees on international transfers; allowing foreign exchange bureaus and microfinance institutions to partner with foreign and local MTOs and banks to provide remittance services; empowering the Nigerian Postal Service (whose network spreads across the entire country and offers affordable tariffs) to compete on remittances services, improving rural areas' access to remittance services putting downward pressure on costs; encouraging use of mobile money transfers to enhance access to remittance services in rural areas and reduce associated costs; and improving data collection on remittances.

In chapter 8, Fatou Cisse finds that remittances have become the principal source of external financing for ***Senegal***, far exceeding FDI, external borrowing, and foreign aid. The EU countries account for more than half the remittances sent to the country. Money transfer services, banks, and the post office make up the formal sector. Money transfer companies account for one-third of the remittance market—with one company accounting for more than 70 percent—and have high costs because of their monopoly status. Banks have only a small share in remittance transfers in Senegal for several reasons, including high cost, the distance of bank branches from residential areas (especially in rural areas), long service delivery delays, long wait times at branches, and sometimes unexpected and arbitrary commission charges upon receipt. Banks also often work in exclusive partnership with international MTOs. The post office, which has a large network and presence in rural areas, provides postal money orders for local transfers and works with several international MTOs to deliver international transfers.

Remittances sent through informal channels (by migrants themselves, by relatives and friends, or through intermediaries) remain prevalent, particularly among the poor, because of the proximity to recipients, simplicity of operations, lack of overhead costs, freedom from regulatory constraints, and low-cost products. However, informal sector's share appears to have declined in recent years. Mobile money is a recent phenomenon in Senegal. A "Yoban'tel" service, launched jointly by Obopay and Société Générale de Banques au Sénégal in mid-2010 (after the survey), allows cash deposits into mobile accounts and a variety of bill payment options.

Rose Ngugi finds in chapter 9 that a key barrier to understanding remittances in ***Uganda*** is inadequate data collection and reporting. Ugandan banks find it difficult to separate migrant remittances from other small-value payments when reporting remittances to the central bank. Remittance costs for outward international remittances tend to be high. The nonformal providers include community-based and transport companies. Few financial services are offered to remittance transfer clients. Mobile telephone transfer services are gaining entry, but they have yet to make significant contributions to domestic remittances.

Frederic Ponsot examines in chapter 10 the remittance market in ***France***, a key destination country for migrants from West Africa and North Africa. Two-fifths of an estimated 6.7 million immigrants in France are estimated to originate in the African continent (World Bank 2011). The largest African sources of immigrants in France are the North African countries (Algeria, Morocco, and Tunisia), followed by Senegal, Côte d'Ivoire, Mali, Cameroon, the Republic of Congo, and the Democratic Republic of Congo in Sub-Saharan Africa. Recorded remittance outflows from France were $5.2 billion in 2009, with a significant share going to Africa; however, the actual amounts, including flows through unrecorded channels, are likely to be higher.

The study finds that the remittance industry in France is dominated by banks, a few money transfer companies that are registered as financial institutions, and a partnership between La Banque Postale and Western Union. French banks do not appear to view African migrants as viable mass-market clients. Some African banks have representative offices in France that facilitate remittances, payments of pensions to retirees in their countries of origin (especially in North Africa), and investments. However, banks from Sub-Saharan Africa havelittle presence of in France, with a few exceptions (for example, from Burkina Faso and Senegal).

On the receiving side, the corridors in Africa are marked by weak financial infrastructure, and the informal sector plays a significant role in rural areas. However, the emergence of microfinance institutions and retail card-based payment systems (with the help of monetary authorities and international donors) have the potential to improve the delivery of remittances.

The chapter makes some concrete policy recommendations to improve the quality of remittance outflows data, including comparing these with remittance-recipient African countries, and discusses policies to increase competition and reduce costs, including eliminating exclusive partnerships; promoting payment institutions; reducing barriers to entry for money transfers; encouraging banks to partner with a variety of RSPs; clarifying regulations about the involvement of telecom operators in cross-border remittances to facilitate remittances from France to Africa through mobile phones; and improving the infrastructure for remittance payments, a key step toward bringing remittances into the formal financial system.

In chapter 11, Leon Isaacs summarizes the remittance market in the ***United Kingdom***, a key destination country for migrants from East Africa and Southern Africa. Over one-sixth of immigrants (1.2 million) are estimated to be from Africa (World Bank 2011). The largest African-migrant countries of origin in the UK include South Africa, Kenya, Nigeria, Zimbabwe, Somalia, Ghana, and Uganda. Recorded remittance outflows from the United Kingdom were $3.7 billion in 2009, but the actual amounts, including flows through unrecorded channels, are likely to be much higher.

The study finds that a broad range of RSPs send money to Africa. Because of a "light touch" regulatory regime relative to other European countries, there are few barriers to entry of small RSPs to the U.K. remittance market. Average costs for sending remittances to Africa, however, tend to be higher than for sending to, for example, South Asia, but these costs have been declining over time. Most RSPs have now been registered as Payments Institutions, under the EU Payments Services Directive. Some services offer Internet-based transfers, and some (such as Mukuru) used to offer even transfers for goods and fuel in Zimbabwe because of the country's hyperinflation.

Recommendations to improve the efficiency of remittance flows from the United Kingdom to Africa include: establishing a dialogue between the money transfer companies and central banks of recipient countries in Africa; broadening the types of business that can provide remittances, including nonbank financial institutions and retail businesses; working with authorities to remove incentives to transfer through informal channels (by eliminating the parallel market premium between official and market rates through exchange liberalization); increasing cost transparency by frequently updating, and increasing coverage of, available remittance price data; and promoting financial literacy for African migrants.

Annex 1.1

Table 1A.1 Household Access to Information and Communication Technology in Selected African Countries, by Remittance Status

percentage of households with selected devices

Country and technology	*Households receiving domestic remittances*	*Households receiving remittances from within Africa*	*Households receiving remittances from outside Africa*	*Households with no remittances*
Burkina Faso				
Mobile phone	40.1	40.6	65.5	39.3
Radio	65.4	64.1	69.0	61.5
Television	7.8	6.9	41.4	8.7
Computer	1.0	1.6	13.8	1.8
Observations	422	507	29	1,145
Ghana				
Mobile phone	9.1	14.6	45.4	19.6
Radio	48.2	31.4	47.3	49.9
Television	18.7	16.9	52.7	33.6
Computer access	0.5	0.0	3.3	2.4
Observations	367	33	133	8,105
Kenya				
Mobile phone	79.5	82.3	87.0	77.3
Radio	84.8	86.7	88.9	82.7
Television	50.4	56.6	76.2	52.2
Computer access	7.1	17.7	30.4	20.6
Observations	395	113	369	1,065
Nigeria				
Mobile phone	70.4	87.3	95.5	57.3
Radio	86.9	94.3	93.8	82.5
Television	54.2	75.8	93.8	48.8
Computer access	7.2	15.1	22.6	10.7
Observations	573	77	328	1,272
Senegal				
Mobile phone	72.8	82.3	97.5	75.2
Radio	76.3	66.9	95.1	75.9
Television	40.3	37.9	79.7	49.1
Internet access	1.6	0.9	9.6	6.6
Observations	320	163	460	1,010
Uganda				
Mobile phone	58.3	76.2	85.4	50.4
Radio	78.1	81.0	90.2	73.4
Television	19.4	28.6	59.8	25.7
Internet access	4.1	3.2	28.1	7.1
Observations	242	63	82	1,528

Sources: Authors' calculations based on results household surveys conducted in Burkina Faso, Kenya, Nigeria, Senegal, South Africa, and Uganda in 2009 as part of the Africa Migration Project and Ghana Living Standards Survey in 2005–06.

Annex 1.2

Table 1A.2 Formal and Informal Remittance Channels, Select African Countries
percentage of recipients (other than for South Africa)

a. Burkina Faso, 2009

Remittance channel	*Remittances from outside Africa*	*Remittances from within Africa*	*Domestic remittances*
Money transfer operator[a]	43.2	10.5	2.0
Postal money order	0.0	3.2	1.4
Received through banks	2.3	0.7	0.4
Through friend or relative	18.2	64.7	37.4
Courier, bus, transport, travel agency	0.0	3.0	5.8
Brought by hand during visit	34.1	15.2	49.5
Informal individual agents	0.0	2.5	1.9
ATM cards, Internet money transfers	0.0	0.0	0.2
Other	2.3	0.2	1.3
Total	**100.0**	**100.0**	**100.0**

Source: Africa Migration Project household survey in Burkina Faso in 2009.
a. Western Union, Moneygram, and others.

b. Ghana, 2005–06

Remittance channel	*Remittances from outside Africa*	*Remittances from within Africa*	*Domestic remittances*
Money transfer operator[a]	67.8	10.9	0.6
Fast money transfer	7.8	0.0	0.0
Bank account	2.2	0.0	0.6
Friend/relative	16.1	52.2	45.1
Brought home by migrant	4.4	32.6	49.0
Other	1.7	4.3	4.7
Total	**100.0**	**100.0**	**100.0**

Source: Ghana Living Standards Survey in 2005–06.
a. Western Union, Moneygram, and Vigo (Merchant Bank).

c. Kenya, 2009

Remittance channel	*Remittances from outside Africa*	*Remittances from within Africa*	*Domestic remittances*
Money transfer operator[a]	64.0	38.6	1.5
Postal money order	1.4	1.5	1.1
Received through banks	17.2	11.4	6.3
Through friend or relative	3.8	9.1	6.5
Courier, bus, or travel agency	0.5	3.8	1.5
Brought by hand during visit	2.0	7.6	20.0
Informal individual agents	1.4	0.0	0.0
Foreign exchange bureau, credit union	6.3	1.5	0.6
Mobile phone	2.9	23.5	61.5
ATM cards, Internet money transfers	0.5	0.0	0.0
Other	0.0	0.0	0.8
Total	**100.0**	**100.0**	**100.0**

Source: Africa Migration Project household survey in Kenya in 2009.
a. Western Union, Moneygram, and others.

d. Nigeria, 2009

Remittance channel	*Remittances from outside Africa*	*Remittances from within Africa*	*Domestic remittances*
Money transfer operator[a]	57.1	35.2	6.3
Postal money order	0.0	1.1	0.0
Direct transfer to bank account	11.8	12.1	35.0
Bank as paying agent for MTO	10.5	17.6	2.6
Foreign exchange bureau	0.0	1.1	0.1
Credit union	0.0	0.0	0.2
Travel agency	0.0	0.0	0.4
Informal individual agents	2.5	4.4	4.1
Mobile phone/telecom service providers	0.0	0.0	0.4
Through friend or relative	12.8	15.4	21.2
Courier, bus, or other transport	0.0	0.0	0.5
Brought by hand during visit	5.4	13.2	27.7
Pre-paid cars/ATM card	0.0	0.0	0.2
Internet money transfer	0.0	0.0	0.1
Other	0.0	0.0	1.2
Total	**100.0**	**100.0**	**100.0**

Source: Africa Migration Project household survey in Nigeria in 2009.
a. Western Union, Moneygram, and others.

e. Senegal, 2009

Remittance channel	*Remittances from outside Africa*	*Remittances within Africa*	*Domestic remittances*
Money transfer operator[a]	81.5	30.8	4.9
Postal money order	2.5	6.3	3.4
Direct transfer to bank account	0.3	0.0	0.0
Bank as paying agent for MTO	1.5	0.0	0.1
Foreign exchange bureau	0.4	0.4	0.0
Credit union	0.7	0.0	0.0
Travel agency	0.0	0.0	0.0
Informal individual agents	1.9	4.3	3.4
Mobile phone/telecom service providers	0.0	0.0	0.6
Through friend or relative	10.1	41.1	37.3
Courier, bus, or other transport	0.0	0.6	11.8
Brought by hand during visit	0.5	14.2	36.7
Pre-paid cars/ATM card	0.0	0.0	0.0
Internet money transfer	0.0	0.0	0.0
Other	0.4	2.2	1.9
Total	**100.0**	**100.0**	**100.0**

Source: Africa Migration Project household survey in Senegal in 2009.
a. Western Union, Moneygram, and others.

f. Uganda, 2009

Remittance channel	*Remittances from outside Africa*	*Remittances within Africa*	*Domestic remittances*
Money transfer operator[a]	55.4	36.3	4.2
Postal money order	2.7	0.0	0.2
Received through banks	12.5	15.0	10.8
Through friend or relative	8.9	21.3	27.4
Courier, bus, or other transport, travel agency	0.0	2.5	3.1
Brought back himself during visit	4.5	20.0	47.6
Informal individual agents	0.0	0.0	0.0
Foreign exchange bureau, credit union	13.4	1.3	0.9
Mobile phone	0.9	2.5	5.2
ATM cards, internet money transfers	0.9	0.0	0.0
Other	0.0	1.3	0.0
Total	**100.0**	**100.0**	**100.0**

Source: Africa Migration Project household survey in Uganda in 2009.
a. Western Union, Moneygram, and others.

g. South Africa 2009 (% of remittance senders)

Remittance channel	*Remittances sent to other countries within Africa*	*Domestic remittances*
Money transfer operator[a]	4.6	15.8
Postal money order	6.1	6.7
Direct transfer to bank account	5.3	40.6
Foreign exchange bureau	0.8	0.6
Credit union	0.0	0.6
Travel agency	0.8	0.6
Other non financial institution that provides remittance services	0.0	1.2
Mobile phone/telecom service providers	0.0	0.6
Through friend or relative	58.0	18.8
Courier, bus, or other transport	18.3	1.2
Brought back himself during visit	2.3	5.5
Pre-paid cars/ATM card	2.3	2.4
Internet money transfer	0.0	1.8
Other	1.5	3.6
Total	**100.0**	**100.0**

Source: Africa Migration Project household survey of *immigrants* in South Africa in 2009.
a. Western Union, Moneygram, and others.

Notes

1. Some notable exceptions occur in Sub-Saharan Africa. For example, Cape Verde, Ethiopia, Kenya, and Nigeria collect and publish monthly data on remittances. Several North African countries, such as Egypt and Morocco, publish quarterly data.
2. Sayan (2006) finds that remittances are strongly countercyclical in poor countries, such as Bangladesh and India, but procyclical in middle-income countries, such as Jordan and Morocco. Lueth and Ruiz-Arranz (2007) find that remittances to Sri Lanka are positively correlated with oil prices—perhaps reflecting the economic situation of Sri Lankan migrants in destination countries in the Gulf—but tend to decline when the Sri Lankan currency weakens.
3. In the past, remittances did not appear to be affected by economic cycles in migrants' destination countries. Roache and Gradzka (2007) find that remittance flows to Latin America were relatively insensitive to business cycle fluctuations in the United States over the 1990–2007 period. Given the magnitude of the financial crisis that began in 2008, there is a strong possibility that it has affected the incomes of migrants and their ability to send money home.
4. The stability of remittances to the Philippines was an important factor in its ability to issue a $750 million bond despite the global financial crisis. Bangladesh was rated for the first time in April 2010, receiving a BB–rating

from Standard & Poor's Investor Service and a Ba3 from Moody's Investor Service, similar to the ratings of many emerging markets. The rating agencies cited the high share of remittance flows in GDP and the high growth rate as important factors in their rating decisions.

5. In developed countries, a firm's credit risk typically accounts for a large part of the information content of its ratings; in developing countries, the sovereign rating exerts significant influence on—and often acts as a ceiling for—the foreign currency ratings of firms and banks in the country (Borensztein, Cowan, and Valenzuela 2007; Ratha, De, and Mohapatra 2010).
6. The joint World Bank-IMF Low-Income Country Debt Sustainability Framework now allows for more explicit consideration of remittances in evaluating the ability of countries to repay external obligations and take on nonconcessional borrowing from private creditors (IMF 2010).
7. Banks in several developing countries—including Brazil, Egypt, El Salvador, Guatemala, Kazakhstan, Mexico, and Turkey—have been able to raise cheaper and longer-term financing (more than $15 billion since 2000) from international capital markets by securitizing future remittance flows (Ratha 2005, Ketkar and Ratha 2009a).
8. The United States, in partnership with the Inter-American Development Bank, launched the BRIDGE (Building Remittance Investments for Development, Growth and Entrepreneurship) initiative, which aims to securitize remittances for infrastructure projects in developing countries, starting with pilots in El Salvador and Honduras.
9. An empirical study of 109 countries for 1990–2003 shows that a well-developed financial sector can more effectively intermediate remittances with investment and that the impact of remittance inflows on exchange rate appreciation is smaller when the level of financial development is higher (Acosta, Baerg, and Mandelman 2009). Increased receipt of remittances is also associated with higher market capitalization, a key indicator of financial market development (Billmeier and Massa 2009). A higher sovereign rating as a result of remittances can translate into greater access of subsovereign entities to international capital markets, thereby increasing the level of investment in the economy.
10. Latin American countries receiving remittances have experienced some exchange rate appreciation (Fajnzylber and Lopez 2007; Amuedo-Dorantes and Pozo 2004), but Fajnzylber and Lopez (2007) find little or no impact of remittance flows on the exchange rate outside the Latin American region.
11. Empirical specifications that include remittances in cross-country growth regressions provide mixed results (Barajas and others 2009; Catrinescu and others 2009; Singh, Haacker, and Lee 2009). The lack of significance of remittances in some growth equations may reflect the fact their effects on human and physical capital are realized only over a long time period; that the effects are endogenous (that is, they rise with declines in output); or that official data

on remittances are of poor quality. Another factor accounting for the lack of significance may be omitted variables, such as policies and institutions (Catrinescu and others 2009), the level of financial development (Giuliano and Ruiz-Arranz 2009), and other indirect channels through which remittances can influence economic growth (Rao and Hassan 2009).

12. Other benefits include the transmission of knowledge, trade and investment linkages, fertility norms, and so on.
13. Only one-third of African migrant households in the OECD send remittances. The average remittance sent by migrant households that remit is $2,638 (Bollard, McKenzie, and Morten 2010).
14. The evidence on whether skilled or unskilled migrants send larger remittances is mixed. Some studies suggest that skilled migrants remit less because they are more likely to settle down in their host countries and eventually bring their families (Niimi and Ozden 2006; Faini 2007). Other studies, based on microdata, find a positive relationship between education and the amounts remitted (Bollard and others 2009; Clemens 2009). Some authors suggest that remittances sent by skilled migrants may exceed the cost of their training (Clemens 2009; Easterly and Nyarko 2009).
15. Taylor and Wyatt (1996) argue that the shadow value of remittances for overcoming risk and liquidity constraints is particularly important to households in the low- to middle-income range, which otherwise tend to be credit-constrained. Guatemalan households receiving remittances spend more at the margin on housing, even after controlling for the endogeneity of remittance-receiving status (Adams and Cuecuecha, forthcoming). About one-fifth of the capital invested in 6,000 microenterprises in urban Mexico was financed by remittances (Woodruff and Zenteno 2001, 2007; see also Massey and Parrado 1998). In rural Pakistan, international remittances raise the propensity to invest in agricultural land (Adams 1998). Remittance-receiving households that benefited from an exchange rate shock spent more hours in self-employment and were more likely to start relatively capital-intensive entrepreneurial enterprises in the Philippines (Yang 2008b). Some recent studies (for example, Ashraf and others 2010) find that giving migrants more control over the uses of remittances can increase savings rates among both migrants and remittance recipients.
16. See Acosta, Fajnzylber, and López (2007); Acosta and others (2008); Ebeke (2010); Cox-Edwards and Ureta (2003); Hanson and Woodruff (2003); Lopez-Cordova (2005); Calero, Bedi, and Sparrow (2009); Amuedo-Dorantes, Georges, and Pozo (2010); Bredl (2010); Adams and Cuecuecha (2010); De and Ratha (2006); Mansuri (2007); Yang (2008b); Bansak and Chezum (2009). However, other studies have found a negative impact of migration on educational outcome. A recent study found

that living in a migrant-sending household in Mexico reduced the likelihood of children completing high school by 13–15 percent (McKenzie and Rapoport 2010).

17. Fajnzylber and Lopez (2007) find that in Guatemala and Nicaragua, children 1–5 in remittance-receiving households were more likely to be of above-average height and weight and to have had a doctor-assisted delivery. Studies of Mexico find that remittances were associated with lower infant mortality rates (Hildebrandt and McKenzie 2005; Lopez-Cordova 2005) and higher health care expenditures (Amuedo-Dorantes, Pozo, and Sainz 2007; Valero-Gil 2009). Kanaiaupuni and Donato (1999) find that infant mortality rates initially rose in Mexican villages with very high rates of migration to the United States but that remittances eventually reduced infant mortality rates.
18. In Ecuador, remittances helped keep children of remittance-receiving households in school when faced with adverse shocks (Calero, Bedi, and Sparrow 2009). Increased remittances helped smooth household consumption and compensate for the loss of assets after an earthquake in El Salvador in 2001 (Halliday 2006). Transfers from friends and relatives in the United States played an important role in reducing the distress caused in Haiti by Cyclone Jeane in 2004 (Weiss-Fagan 2006) and after the devastating earthquake in 2010 (Ratha 2010). Remittance-receiving households in the Aceh region of Indonesia recovered more quickly than other households after the 2004 tsunami (Wu 2006). Migrant remittances were important factors in disaster recovery and reconstruction after a devastating earthquake in Pakistan in 2005 (Suleri and Savage 2006). In the Philippines, remittances helped compensate for the loss in income caused by adverse rainfall shocks (Yang and Choi 2007). In Thailand, domestic remittances increased in response to below-average rainfall in the recipients' region and to increases in medical expenses in recipient households (Miller and Paulson 2007).
19. Ratha, Mohapatra, and Joseph (2009) find that remittance-receiving households in Ghana are likely to have better access to communication equipment and mobile phones than households that do not receive any remittances, even after controlling for the possibility of self-selection of remittance-receiving households.
20. The World Bank's Remittance Prices Worldwide database provides average remittance costs through banks and nonbank intermediaries for more than 150 migration corridors. http://remittanceprices.worldbank.org.
21. Transfer costs tend to be lower when financial systems are more developed and exchange rates less volatile (Freund and Spatafora 2008). Beck and Martinez Peria (2009) find that remittance corridors with larger stocks of migrants, a larger number of RSPs, and greater banking competition have lower costs.

22. Access to “bank-like” institutions, such as microfinance institutions and savings and credit cooperatives, is also limited outside of urban areas (Demirgüç-Kunt, Beck, and Honohan 2008).
23. Qualitative information was collected for the United States. Conducting a survey in the United States proved infeasible because there is no national-level institutional focal point; each state has a different legal and regulatory framework, compliance requirements, and institutions governing remittances (Andreassen 2006).
24. The Southern African Migration Project conducted national-level representative surveys on remittance flows and usage at the household level for five countries belonging to the Southern African Development Community: Botswana, Lesotho, Southern Mozambique, Swaziland, and Zimbabwe, with a focus on intraregional transfers from South Africa and Botswana (Pendleton and others 2006). While the use of informal channels is predominant in remittances sent from South Africa to neighboring countries, among formal channels used, TEBA Bank provides bank transfers for migrant mining workers in South Africa, accounting for about 16 percent of transfers to Botswana and 8 percent for Swaziland.
25. The concept of mobile money transfers is being transferred from Africa to other developing regions. India’s Bharti Telecom, which recently acquired Zain, has received approval from India’s central bank to start mobile payments services in India. The “semiclosed wallet” will allow Bharti Airtel’s customers in India to exchange physical cash for virtual money, which can then be used to pay for goods and services up to Rs 5,000 (about $108) per transaction. It does not, however, allow cash withdrawals at present. See *Economic Times* 2010.
26. http://allafrica.com/stories/201006071332.html.
27. http://www.wizzit.co.za.
28. In the Philippines, for example, regulators have imposed the same reporting requirements on bank and nonbank mobile money providers (Dolan 2009).
29. The Philippines has been at the forefront of mobile money-transfer services (World Bank 2006), while Brazil has considerable experience with “branchless banking” using retail payment networks and point-of-sale devices deployed at agents such as grocery stores (Pickens, Porteous, and Rotman 2009).
30. For example, in Sub-Saharan Africa in 2008, only 17 percent of post offices were equipped with computers and had Internet access. A study led by the Universal Postal Union in 2010 showed that only 2 African countries out of 43 who answered a questionnaire had developed a cost-accounting system (Clotteau and Anson 2010).
31. http://www.postbank.co.ke/.
32. World Bank and BIS-CPSS 2007.

References

Abdih, Yasser, Ralph Chami, Jihad Dagher, and Peter Montiel. 2008. "Remittances and Institutions: Are Remittances a Curse?" Working Paper 08/29, International Monetary Fund, Washington, DC.

Abdih, Yasser, Michael Gapen, Amine Mati, and Ralph Chami. 2009. "Fiscal Sustainability in Remittance-Dependent Economies." Working Paper 09/190, International Monetary Fund, Washington, DC.

Acosta, Pablo, Nicole Baerg, and Federico Mandelman. 2009. "Financial Development, Remittances, and Real Exchange Rate Appreciation." *Economic Review* (Federal Reserve Bank of Atlanta) 94 (1): 1–12.

Acosta, Pablo A., Cesar Calderon, Humberto López, and Pablo Fajnzylber. 2008. "What is the Impact of International Remittances on Poverty and Inequality in Latin America?" *World Development* 36 (1): 89–114.

Acosta, Pablo, Pablo Fajnzylber, and Humberto López. 2007. "The Impact of Remittances on Poverty and Human Capital: Evidence from Latin American Household Surveys." In *International Migration, Economic Development and Policy*, ed. Caglar Özden and Maurice Schiff, 59–98. New York: World Bank and Palgrave Macmillan.

Acosta, Pablo, Emmanuel Lartey, and Federico Mandelman. 2009. "Remittances and the Dutch Disease." *Journal of International Economics* 79(1): 102–16.

Adams, Richard H. 1998. "Remittances, Investment and Rural Asset Accumulation in Pakistan." *Economic Development and Cultural Change* 47 (1): 155–73.

———. 2006. "Remittances and Poverty in Ghana." Policy Research Working Paper 3838, World Bank, Washington, DC.

Adams, Richard H., and Alfredo Cuecuecha. 2010. "Remittances, Household Expenditure and Investment in Guatemala." *World Development*, 38 (11): 1626–1641, November.

Adams, Richard H., Alfredo Cuecuecha, and John Page. 2008a. "Remittances, Consumption and Investment in Ghana." Policy Research Working Paper 4515, World Bank, Washington, DC.

———. 2008b. "The Impact of Remittances on Poverty and Inequality in Ghana." Policy Research Working Paper 4732, World Bank, Washington, DC.

Adams, Richard H., and John Page. 2003. "International Migration, Remittances and Poverty in Developing Countries." Policy Research Working Paper 3179, World Bank, Washington, DC.

———. 2005. "Do International Migration and Remittances Reduce Poverty in Developing Countries?" *World Development* 33 (10): 1645–69.

AfDB (African Development Bank) and World Bank. 2011. *Leveraging Migration for Africa: Remittances, Skills, and Investments.* Washington, DC: World Bank.

Afreximbank (African Export-Import Bank). 2005. *Annual Report*. http://www.afreximbank.com.

Aggarwal, Reena, Asli Demirgüç-Kunt, and Maria Soledad Martinez Peria. 2006. "Do Workers' Remittances Promote Financial Development?" Policy Research Working Paper 3957, World Bank, Washington, DC.

Ajayi, Michael A., Mukaila A. Ijaiya, Gafar T. Ijaiya, Raji A. Bello, Mufthau A. Ijaiya, and Sidikat L. Adeyemi. 2009. "International Remittances and Well-Being in Sub-Saharan Africa." *Journal of Economics and International Finance* 1 (3): 78–84.

Aker, Jenny C., and Isaac M. Mbiti. 2010. "Mobile Phones and Economic Development in Africa." Working Paper 211, Center for Global Development, Washington, DC.

Akinlo, Anthony E., and Tajudeen Egbetunde. 2010. "Financial Development and Economic Growth: The Experience of 10 Sub-Saharan African Countries Revisited." *The Review of Finance and Banking* 2 (1): 17–28.

Amuedo-Dorantes, Catalina, and Susan Pozo. 2004. "Workers' Remittances and the Real Exchange Rate: A Paradox of Gifts." *World Development* 32 (8): 1407–17.

———. 2011. "New Evidence on the Role of Remittances on Health Care Expenditures by Mexican Households." *Review of Economics of the Household* 9 (1): 69–98.

Amuedo-Dorantes, Catalina, Susan Pozo, and Tania Sainz. 2007. "Remittances and Healthcare Expenditure Patterns of Populations in Origin Communities: Evidence from Mexico." *Integration & Trade* 27 (July–December): 159–84.

Andreassen, Ole. 2006. Remittance Service Providers in the United States: How remittance firms operate and how they perceive their business environment." Financial Sector Discussion Series, Payments Systems and Remittances, World Bank, Washington DC. June.

Anyanwu, John C., and Andrew E. O. Erhijakpor. 2010. "Do International Remittances Affect Poverty in Africa?" *African Development Review* 22 (1): 51–91.

Avendaño, Rolando, Norbert Gaillard, and Sebastián Nieto Parra. 2009. "Are Workers' Remittances Relevant for Credit Rating Agencies?" Development Center Working Paper 282, Organisation for Economic Cooperation and Development, Paris.

Awareness Times (Sierra Leone). 2010. "In Sierra Leone, over 150,000 Clients Registered with Splash Mobile Money." September 16. http://news.sl/drwebsite/publish/article_200516307.shtml.

Azam, Jean-Paul, and Flore Gubert. 2005. "Those in Kayes. The Impact of Remittances on Their Recipients in Africa." *Revue Économique* 56 (6): 1331–58.

———. 2006. "Migrants' Remittances and the Household in Africa: A Review of Evidence." *Journal of African Economies* 15 (AERC Supplement): 426–62.

Babatunde, Raphael O., and Enrica C. Martinetti. 2010. "Impact of Remittances on Food Security and Nutrition in Rural Nigeria." Unpublished manuscript, Center for International Cooperation and Development, University of Pavia, Italy.

Bansak, Cynthia, and Brian Chezum. 2009. "How Do Remittances Affect Human Capital Formation of School-Age Boys and Girls?" *American Economic Review* 99 (2): 145–48.

Barajas, Adolfo, Ralph Chami, Connel Fullenkamp, Michael Gapen, and Peter J. Montiel. 2009. "Do Workers' Remittances Promote Economic Growth?" Working Paper 09/153, International Monetary Fund, Washington, DC.

Beck, Thorsten, and Maria Soledad Martinez Peria. 2009. "What Explains the Cost of Remittances? An Examination Across 119 Country Corridors." Policy Research Working Paper 5072, World Bank, Washington, DC.

Billmeier, Andreas, and Isabella Massa. 2009. "What Drives Stock Market Development in Emerging Markets—Institutions, Remittances, or Natural Resources?" *Emerging Markets Review* 10 (1): 23–35.

Birdsall, Nancy, and Punam Chuhan. 1986. "Client Choice of Health Care Treatment in Rural Mali." Unpublished manuscript for the Health, Nutrition and Population Department, World Bank, Washington, DC.

Block, S., and P. Webb. 2001. "The Dynamics of Livelihood Diversification in Post-Famine Ethiopia." *Food Policy* 26 (4): 333–50.

Bold. 2010. "Borderless Branchless Banking." Technology Blog, Consultative Group to Assist the Poor (CGAP), Washington DC. December 14.

Bollard, Albert, David McKenzie, and Melanie Morten. 2010. "The Remitting Patterns of African Migrants in the OECD." *Journal of African Economies* 19 (5): 605–34.

Bollard, Albert, David McKenzie, Melanie Morten, and Hillel Rapoport. 2009. "Remittances and the Brain Drain Revisited: The Microdata Show that More Educated Migrants Remit More." Policy Research Working Paper 5113, World Bank, Washington, DC.

Borensztein, Eduardo, Kevin Cowan, and Patricio Valenzuela. 2007. "Sovereign Ceilings 'Lite'? The Impact of Sovereign Ratings on Corporate Ratings in Emerging Market Economies." Working Paper 07/75, International Monetary Fund, Washington, DC.

Bourdet, Yves, and Hans Falck. 2006. "Emigrants' Remittances and Dutch Disease in Cape Verde." *International Economic Journal* 20 (3): 267–84.

Bracking, Sarah, and Lloyd Sachikonye. 2008 "Remittances, Poverty Reduction and Informalization in Zimbabwe 2005–6: A Political Economy of Dispossession?" Brooks World Poverty Institute Working Paper 28, University of Manchester, U.K.

Bredl, Sebastian. 2011. "Migration, Remittances and Educational Outcomes: The Case of Haiti." *International Journal of Educational Development* 31 (2): 162–68.

Bugamelli, Matteo, and Francesco Paterno. 2009. "Do Workers' Remittances Reduce the Probability of Current Account Reversals?" *World Development* 37 (12): 1821–38.

Business Daily Africa. 2010. "Mobile Money Transforms Uganda." September 7.allafrica.com/stories/201009070007.html.

Bussolo, Maurizio, and Dennis Medvedev. 2007. "Do Remittances Have a Flip Side? A General Equilibrium Analysis of Remittances, Labor Supply Responses, and Policy Options for Jamaica." Policy Research Working Paper 4143, World Bank, Washington, DC.

Calero, Carla, Arjun S. Bedi, and Robert Sparrow. 2009 "Remittances, Liquidity Constraints and Human Capital Investments in Ecuador." *World Development* 37 (6): 1143–54.

Catrinescu, Natalia, Miguel Leon-Ledesma, Matloob Piracha, and Bryce Quillin. 2009. "Remittances, Institutions, and Economic Growth." *World Development* 37 (1): 81–92.

CGAP (Consultative Group to Assist the Poor) and Dalberg (Global Development Advisers). 2010. "Improving Access and Reducing Costs of International Remittances through Branchless Banking Solutions." Landscaping research by Dalberg for the CGAP Technology Program, CGAP, Washington, DC. http://www.cgap.org/gm/document-1.9.49049/Dalberg-CGAP_Intl_Remit_Branchless_Banking_Findings.pdf.

Chami, Ralph, Adolfo Barajas, Thomas Cosimano, Connel Fullenkamp, Michael Gapen, and Peter Montiel. 2008. "Macroeconomic Consequences of Remittances." Occasional Paper 259, International Monetary Fund, Washington, DC.

Chami, Ralph, Dalia Hakura, and Peter Montiel. 2009. "Remittances: An Automatic Stabilizer?" Working Paper 09/91, International Monetary Fund, Washington, DC.

Chauvet, Lisa, Flore Gubert, and Sandrine Mesplé-Somps. 2009. "Are Remittances More Effective than Aid to Reduce Child Mortality? An Empirical Assessment Using Inter- and Intra-Country Data." Développement Institutions & Mondialisation (DIAL) Working Paper DT/2009-11, DIAL, Paris.

Clarke, George, and Scott Wallsten. 2004. "Do Remittances Protect Households in Developing Countries against Shocks? Evidence from a Natural Disaster in Jamaica. Unpublished manuscript, World Bank, Washington, DC.

Clemens, Michael. 2009. "The Financial Effects of High-Skill Emigration: New Data on African Doctors Abroad." Presentation at the International Conference on Diaspora for Development, World Bank, Washington, DC, July 13–14. http://siteresources.worldbank.org/INTPROSPECTS/Resources/334934-1110315015165/Clemens.pdf.

Clotteau, Nils, and Jose Anson. 2011. "Role of Posts in Remittances and Financial Inclusion." Background note prepared for the Africa Migration Project, Universal Postal Union, Berne, Switzerland (Forthcoming as *Migration and Development Brief 15*, World Bank).

Cox-Edwards, Alejandra, and Manuelita Ureta, M. 2003. "International Migration, Remittances and Schooling: Evidence from El Salvador." *Journal of Development Economics* 72 (2): 429–61.

De, Prabal, and Dilip Ratha. 2006. "Migration and Remittances in Sri Lanka." Unpublished manuscript, Development Prospects Group, World Bank, Washington, DC.

Demirgüç-Kunt, Asli, Thorsten Beck, and Patrick Honohan. 2008. "Finance for All? Policies and Pitfalls in Expanding Access." Policy Research Report, World Bank, Washington, DC.

Dolan, Jonathan. 2009. "Accelerating the Development of Mobile Money Ecosystems." Report on the Mobile Money Summit 2009, International Finance Corporation and Harvard Kennedy School, Cambridge, MA. http://www.hks.harvard.edu/m-rcbg/CSRI/publications/report_39_mobile_money_january_09.pdf.

Drabo, Alassane, and Christian Ebeke. 2010. "Remittances, Public Health Spending and Foreign Aid in the Access to Health Care Services in Developing Countries." Working Paper E 2010.04, Central Extension Resources Development Institute (CERDI), Clermont-Ferrand, France.

Easterly, William, and Yaw Nyarko. 2009. "Is the Brain Drain Good for Africa?" In *Skilled Immigration Today: Prospects, Problems, and Policies*, ed. Jagdish Bhagwati and Gordon Hanson. New York: Oxford University Press. pp. 316–360

Ebeke, Christian H. 2010. "The Effect of Remittances on Child Labor: Cross-Country Evidence." *Economics Bulletin* 30 (1): 351–64.

Economic Times. 2010. "Bharti Gets RBI Nod for Mobile Money Services." September 17. http://economictimes.indiatimes.com/articleshow/6559841.cms?prtpage=1.

Economist. 2010. "Low-Cost Bundle: India's Biggest Mobile Operator Makes a Fresh Attempt to Enter Africa." February 18. http://www.economist.com/node/15546456?story_id=15546456.

Elbadawi, Asmaa, and Rania Roushdy. 2009. "Impact of International Migration and Remittances on Child Schooling and Child Work: The Case of Egypt." Paper for the World Bank's MENA International Migration Program funded by the European Commission, World Bank, Washington, DC.

Faini, Riccardo. 2007. "Remittances and the Brain Drain: Do More Skilled Migrants Remit More?" *The World Bank Economic Review* 21 (2): 177–91.

Fajnzylber, Pablo, and Humberto López. 2007. *Close to Home: The Development Impact of Remittances in Latin America*. Washington, DC: World Bank.

Frankel, Jeffrey. 2011. "Are Bilateral Remittances Countercyclical?" *Open Economies Review* 22 (1): 1–16 .

Freund, Caroline, and Nikola Spatafora. 2008. “Remittances, Transaction Costs, and Informality.” *Journal of Development Economics* 86 (2): 356–66.

Ghirmay, Teame. 2004. “Financial Development and Economic Growth in Sub-Saharan African Countries: Evidence from Time Series Analysis.” *African Development Review* 16 (3): 415–32.

Gibson, John, David McKenzie, and Halahingano Rohorua. 2006. “How Cost-Elastic Are Remittances? Evidence from Tongan Migrants in New Zealand.” *Pacific Economic Bulletin* 21 (1): 112–28.

Giuliano, Paola, and Marta Ruiz-Arranz. 2009. “Remittances, Financial Development and Growth.” *Journal of Development Economics* 90 (1): 144–52.

Gubert, Flore. 2002. “Do Migrants Insure Those who Stay Behind? Evidence from the Kayes Area (Western Mali).” *Oxford Development Studies* 30 (3): 267–287.

———. 2007. “Migration and Development: Mixed Evidence from Western Mali.” *Development* 50 (4): 94–100.

Gupta, Sanjeev, Catherine A. Pattillo, and Smita Wagh. 2009. “Impact of Remittances on Poverty and Financial Development in Sub-Saharan Africa.” *World Development* 37 (1): 104–15.

Gustafsson, Bjorn, and Negatu Makonnen. 1993. “Poverty and Remittances in Lesotho.” *Journal of African Economies* 2 (1): 49–73.

Guzmán, Juan Carlos, Andrew R. Morrison, and Mirja Sjöblom. 2007. “The Impact of Remittances and Gender on Household Expenditure Patterns.” In *The International Migration of Women*, ed. Maurice Schiff, Andrew R. Morrison, and Mirja Sjöblom. Washington, DC: World Bank.

Halliday, Timothy. 2006. “Migration, Risk and Liquidity Constraints in El Salvador.” *Economic Development and Cultural Change* 54 (4): 893–925.

Hanson, Gordon, and Christopher Woodruff. 2003. “Emigration and Educational Attainment in Mexico.” Unpublished manuscript, University of California, San Diego.

Hildebrandt, Nicole, and David McKenzie. 2005. “The Effects of Migration on Child Health in Mexico.” *Economia* 6 (1): 257–289.

Huysentruyt, Marieke, Christopher B. Barrett, and John G. McPeak. 2009. “Understanding Declining Mobility and Interhousehold Transfers among East African Pastoralists.” *Economica* 76 (302): 315–36.

IFAD (International Fund for Agriculture and Development). 2009. “Sending Money Home to Africa: Remittance Markets, Enabling Environment and Prospects.” Study report, IFAD, Rome.

IMF (International Monetary Fund). 2009. *International Transactions in Remittances: Guide for Compilers and Users*. Washington, DC: IMF.

———. 2010a. *Balance of Payments Statistics Yearbook 2010*. Washington, DC: IMF.

———. 2010b. "Staff Guidance Note on the Application of the Joint Bank-Fund Debt Sustainability Framework for Low-Income Countries." Guidance Note, IMF and World Bank staffs, Washington, DC.

IMF and World Bank. 2009. "A Review of Some Aspects of the Low-Income Country Debt Sustainability Framework." Policy Paper, IMF and World Bank, Washington, DC. http://www.imf.org/external/np/pp/eng/2009/080509a.pdf.

Irving, Jacqueline, Sanket Mohapatra, and Dilip Ratha. 2010. "Migrant Remittance Flows: Findings from a Global Survey of Central Banks." Working Paper 194, World Bank, Washington, DC.

Joseph, Michael. 2010. "Kenya's Telecom Revolution and Invention of Mobile Money." Presentation at the World Bank, Washington, DC, November 12.

Kanaiaupuni, Shawn M., and Katharine M. Donato. 1999. "Migradollars and Mortality: The Effects of Migration on Infant Survival in Mexico." *Demography* 36 (3): 339–53.

Ketkar, Suhas, and Dilip Ratha, eds. 2009a. *Innovative Financing for Development*. Washington, DC: World Bank.

———. 2009b. "New Paths to Funding." *Finance and Development*, International Monetary Fund.

Lachaud. Jean-Pierre. 1999. "Envoi de fonds, inegalite et pauvrete au Burkina Faso." Documents de travail 40, Groupe d'Economie du Développement de l'Université Montesquieu Bordeaux IV.

Lopez-Cordova, E. 2005. "Globalization, Migration and Development: The Role of Mexican Migrant Remittances." *Economia* 6 (1): 217–56.

Lucas, Robert, E. B. 1987. "Emigration to South Africa's Mines." *American Economic Review* 77 (3): 313–30.

Lucas, Robert E. B., and Oded Stark. 1985. "Motivations to Remit: Evidence from Botswana." *Journal of Political Economy* 93 (5): 901–18.

Lueth, Erik, and Marta Ruiz-Arranz. 2008. "Determinants of Bilateral Remittance Flows." *The B.E Journal of Macroeconomics* 8 (1), Article 26.

Maimbo, Samuel, Tania Saranga, and Nicholas Strychacz. 2010. "Facilitating Cross-Border Mobile Banking in Southern Africa." *Economic Premise* No. 26, World Bank, Washington, DC.

Mansuri, Ghazala. 2007. "Does Work Migration Spur Investment in Origin Communities? Entrepreneurship, Schooling, and Child Health in Rural Pakistan." In *International Migration, Economic Development, and Policy*, ed. Çaglar Özden and Maurice Schiff. Basingstoke, U.K.: Palgrave Macmillan. pp. 99–140.

Martinez, Claudia, Diego Aycinena, and Dean Yang. 2010. "The Impact of Remittance Fees on Remittance Flows: Evidence from a Field Experiment among Salvadoran Migrants." Unpublished manuscript, University of Michigan, Ann Arbor.

Mas, Ignacio, and Dan Radcliffe. 2010. "Mobile Payments Go Viral: M-PESA in Kenya." Working paper, Bill and Melinda Gates Foundation, Seattle.

Massey, Douglas, and Emilio A. Parrado. 1998. "International Migration and Business Formation in Mexico." *Social Science Quarterly* 79 (1): 1–20.

McCormick, Barry, and Jackline Wahba. 2001. "Overseas Work Experience, Savings and Entrepreneurship amongst Return Migrants to LDCs." *Scottish Journal of Political Economy* 48 (2):164–78.

———. 2003 "Return International Migration and Geographical Inequality: The Case of Egypt." *Journal of African Economies* 12 (4): 500–32.

McKenzie, David, and Marcin J. Sasin. 2007. "Migration, Remittances, Poverty, and Human Capital: Conceptual and Empirical Findings." Policy Research Working Paper 4272, World Bank, Washington, DC.

McKenzie, David, and Hillel Rapoport. 2010. "Can Migration Reduce Educational Attainment? Evidence from Mexico." *Journal of Population Economics*. Published online: DOI No. 10.1007/s00148-010-0316-x. http://www.springerlink.com/content/95ht846m8m3065l7

Miller, Douglas L., and Anna L. Paulson. 2007. "Risk Taking and the Quality of Informal Insurance: Gambling and Remittances in Thailand." Working Paper 2007-01, Federal Reserve Bank of Chicago.

Mohapatra, Sanket, George Joseph, and Dilip Ratha. 2009. "Remittances and Natural Disasters: Ex-Post Response and Contribution to Ex-Ante Preparedness." Policy Research Working Paper 4972, World Bank, Washington, DC.

Morawczynski, Olga, and Mark Pickens. 2009. "Poor People Using Mobile Financial Services: Observations on Customer Usage and Impact from M-PESA." Consultative Group to Assist the Poor (CGAP) Brief, CGAP, Washington, DC.

Nagarajan, Subha. 2009. "Migration, Remittances, and Household Health: Evidence from South Africa." Ph.D. dissertation, George Washington University, Washington, DC.

Plaza, Sonia, Mario Navarrete, and Dilip Ratha. Forthcoming. "Migration and Remittances Household Surveys: Methodological Issues and New Findings from Sub-Saharan Africa." Unpublished manuscript, Africa Migration Project, World Bank, Washington DC.

Niimi, Yoko, and Caglar Ozden. 2006. "Migration and Remittances: Causes and Linkages." Policy Research Working Paper 4087, World Bank, Washington, DC.

Odozia, John C., Timothy T. Awoyemia, and Bolarin T. Omonona. 2010. "Household Poverty and Inequality: The Implication of Migrants' Remittances in Nigeria." *Journal of Economic Policy Reform* 13 (2): 191–99.

Orozco, Manuel. 2009. "Emerging Markets for Rwanda: Remittance Transfers, Its Marketplace and Financial Intermediation." Report, Inter-American Dialogue, Washington, DC.

Osili, Una Okonkwo, 2004. "Migrants and Housing Investments: Theory and Evidence from Nigeria." *Economic Development and Cultural Change* 52 (4): 821–49.

Page, John, and Sonia Plaza. 2006. "Migration Remittances and Development: A Review of Global Evidence." *Journal of African Economies* 15 (Suppl. 2): 245–336.

Pendleton, Wade, Jonathan Crush, Eugene Campbell, Thuso Green, Hamilton Simelane, Daniel Tevera, and Fion de Vletter. 2006. "Migration, Remittances and Development in Southern Africa." Migration Policy Series 44, Southern African Migration Project, Cape Town, South Africa.

Pickens, Mark, David Porteous, and Sarah Rotman. 2009. "Scenarios for Branchless Banking in 2020." Consultative Group to Assist the Poor (CGAP) Focus Note 57, CGAP, Washington, DC. http://www.cgap.org/gm/document-1.9.40599/FN57.pdf.

Ponsot, Frédéric, and Bruno Obegi. 2010 "Etude de capitalisation des initiatives et mécanismes en matière de transferts de fonds au Mali." Study conducted for Centre d'Information et de Gestion des Migrations (CIGEM), Mali.

Pulver, Caroline, William Jack, and Tavneed Suri. 2009. "The Performance and Impact of M-PESA: Preliminary Evidence from a Household Survey." Unpublished paper, FSD Kenya Trust, Nairobi. http://technology.cgap.org/technologyblog/wp-content/uploads/2009/10/fsd_june2009_caroline_pulver.pdf.

Quartey, Peter. 2006. "The Impact of Migrant Remittances on Household Welfare in Ghana." Research Paper 158, African Economic Research Consortium, Nairobi.

Quartey, Peter, and Theresa Blankson. 2004. "Do Migrant Remittances Minimize the Impact of Macro-Volatility on the Poor in Ghana?" Report for the Global Development Network, University of Ghana, Legon.

Rajan, Raghuram G., and Arvind Subramanian. 2005. "What Undermines Aid's Impact on Growth?" Working Paper 05/127, International Monetary Fund, Washington, DC.

Rajan, Raghuram G., and Luigi Zingales. 1998. "Financial Dependence and Growth." *The American Economic Review* 88 (3): 559–86.

Rao, Bhaskara, and Gazi Hassan. 2009. "A Panel Data Analysis of the Growth Effects of Remittances." Munich Personal RePEc Archive (MPRA) Working Paper 18021, Munich. http://mpra.ub.uni-muenchen.de/18021/1/MPRA_paper_18021.pdf.

Ratha, Dilip. 2003. "Workers' Remittances: An Important and Stable Source of External Development Finance." Chapter 7 in *Global Development Finance 2003*, World Bank, Washigngton DC. pp. 157–175.

Ratha, Dilip. 2005. "Leveraging Remittances for Capital Market Access." Unpublished Manuscript, World Bank, Washington, DC.

———. 2007. "Leveraging Remittances for Development." *Policy Brief* (June), Migration Policy Institute, Washington, DC.

———. 2010. "Mobilize the Diaspora for the Reconstruction of Haiti." SSRC Feature: Haiti, Now and Next, Social Science Research Council, New York. http://www.ssrc.org/features/pages/haiti-now-and-next/1338/1438.

Ratha, Dilip, Prabal De, and Sanket Mohapatra. Forthcoming. "Shadow Sovereign Ratings for Unrated Developing Countries." *World Development*.

Ratha, Dilip, and Sanket Mohapatra. 2007. "Increasing the Macroeconomic Impact of Remittances." Paper prepared for the G8 Outreach Event on Remittances, Berlin, November 28–30. http://dilipratha.com/index_files/G8Berlin.pdf.

Ratha, Dilip, Sanket Mohapatra, and Sonia Plaza. 2009. "Beyond Aid: New Sources and Innovative Mechanisms for Financing Development in Sub-Saharan Africa." In *Innovative Financing for Development*, ed. Suhas Ketkar and Dilip Ratha, 143–83. Washington DC: World Bank.

Ratha, Dilip, Sanket Mohapatra, and Ani Silwal. 2010. "Outlook for Remittance Flows 2010–11: Remittance Flows to Developing Countries Remained Resilient in 2009, Expected to Recover in 2010–11." Migration and Development Brief 12, World Bank, Washington, DC. http://www.worldbank.org/prospects/migrationandremittances.

Ratha, Dilip, and Jan Riedberg. 2005. "On Reducing Remittance Costs." Unpublished Manuscript, Development Research Group, World Bank, Washington, DC.

Ratha, Dilip, and William Shaw. 2007. "South-South Migration and Remittances." Development Prospects Group Working Paper 102, World Bank, Washington, DC.

Roache, Shaun K., and Ewa Gradzka. 2007. "Do Remittances to Latin America Depend on the U.S. Business Cycle?" Working Paper 07/273, International Monetary Fund, Washington, DC.

Russell, Sharon S. 1992. "Remittances from International Migration: A Review in Perspective." *World Development* 14 (6): 677–96.

Rutten, Lamon, and Okey Oramah. 2006. "Using Commoditized Revenue Flows to Leverage Access to International Finance; with a Special Focus on Migrant Remittances and Payment Flows." Study for the United Nations Conference on Trade and Development (UNCTAD) Secretariat UNCTAD/DITC/COM/2006/9, UNCTAD, Geneva.

Sayan, Serdar. 2006. "Business Cycles and Workers' Remittances: How Do Migrant Workers Respond to Cyclical Movements of GDP at Home?" Working Paper 06/52, International Monetary Fund, Washington, DC.

Singh, Raju J., Markus Haacker, and Kyung-woo Lee. 2009. "Determinants and Macroeconomic Impact of Remittances to Sub-Saharan Africa." Working Paper 09/216, International Monetary Fund, Washington, DC.

Sorensen, Ninna Nyberg. 2004. "Migrant Remittances as a Development Tool: The Case of Morocco." Working Paper 2, International Organization for Migration, Geneva. http://www.belgium.iom.int/pan-europeandialogue/documents/remittances_morocco.pdf.

Suleri, Abid Qaiyum, and Kevin Savage. 2006. "Remittances in Crises: A Case Study from Pakistan." Humanitarian Policy Group background paper, Overseas Development Institute, London. http://www.odi.org.uk/hpg/papers/BGPaper_RemittancesPakistan.pdf.

Taylor, J. Edward, and T. J. Wyatt. 1996. "The Shadow Value of Migrant Remittances, Income and Inequality in a Household-Farm Economy." *The Journal of Development Studies* 32 (6): 899–912.

Tevera, Daniel, and Abel Chikanda. 2009. "Migrant Remittances and Household Survival in Zimbabwe." Working Paper, Southern African Migration Project, Cape Town.

Valero-Gil, Jorge N. 2009. "Remittances and the Household's Expenditures on Health." *Journal of Business Strategies* 26 (1): 119–40.

Weiss-Fagan, Patricia. 2006. "Remittances in Crises: A Haiti Case Study." Humanitarian Policy Group background paper, Overseas Development Institute, London. http://www.odi.org.uk/hpg/papers/BG_Haiti_remittances.pdf.

Woodruff, Christopher, and Rene Zenteno. 2001. "Remittances and Microenterprises in Mexico." Working Paper, Graduate School of International Relations and Pacific Studies, University of California, San Diego.

———. 2007. "Migration Networks and Microenterprises in Mexico." *Journal of Development Economics* 82 (2): 509–28.

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

———. 2009. Issue Brief on Migration and Remittances, Washington, DC: World Bank. (www.worldbank.org)

———. 2010a. Global Development Finance (database). World Bank, Washington, DC. http://data.worldbank.org/data-catalog/global-development-finance.

———. 2010b. Remittance Prices Worldwide (database). World Bank, Washington, DC. http://remittanceprices.worldbank.org.

———. 2010c. World Development Indicators (database). World Bank, Washington, DC. http://data.worldbank.org/data-catalog/world-development-indicators.

———. 2011. *Migration and Remittances Factbook 2011*. Washington, DC: World Bank.

Wouterse, F. 2010. "Remittances, Poverty, Inequality and Welfare: Evidence from the Central Plateau of Burkina Faso" *The Journal of Development Studies* 46 (4): 771–89.

Wu, Treena. 2006. "The Role of Remittances in Crisis: An Aceh Research Study." Humanitarian Policy Group background paper, Overseas Development Institute, London. http://www.odi.org.uk/hpg/papers/BG_Remittances_Aceh.pdf.

Yang, Dean. 2008a. "Coping With Disaster: The Impact of Hurricanes on International Financial Flows, 1970–2002." *The B.E. Journal of Economic Analysis and Policy* 8 (1): Article 13.

———. 2008b. "International Migration, Remittances and Household Investment: Evidence from Philippine Migrants' Exchange Rate Shocks." *The Economic Journal* 118 (528): 591–630.

Yang, Dean, and HwaJung Choi. 2007. "Are Remittances Insurance? Evidence from Rainfall Shocks in the Philippines." *The World Bank Economic Review* 21 (2): 219–48.