

Chapter 3

Expanding Financial Systems

Introduction

The outreach of financial systems in Africa is still extremely limited (see chapter 2). Honohan and Beck (2007) report that, on average, fewer than one in five adults in Sub-Saharan Africa has an account with a formal financial institution. Nonetheless, we have seen lots of innovation in recent years that has led to greater access. Technology has played an important role in this expansion, but so have new actors, such as telecommunications companies. We may also observe a move away from a credit-led inclusion strategy to savings- and payment-led inclusion strategies. These developments put a premium on financial literacy and on an open and adaptable regulatory framework to maximize the benefits.

This chapter takes a fresh look at the access to financial services in Africa and the efforts to expand it. In undertaking our analysis, we have benefited from much better tools to measure the outreach of financial institutions and markets, including information on the geographical and product outreach of financial institutions, the use of financial services by households, and access barriers through documentation requirements. We detail the plethora of innovative efforts and experiences involved in expanding outreach that are ongoing throughout the region, many of which are built on technology.

Our analysis leads us to a somewhat different emphasis than previous analyses. First, we stress more than others the benefits of competition and the consequent financial innovations (without ignoring the risks and challenges) that can help expand the outreach of financial systems. Second, we emphasize the need to look beyond existing institutions and models; innovation often comes from unexpected quarters. Among other steps to enhance outreach and inclusion, this implies that one must look beyond the credit-led approach toward an approach based more closely on payment services. Finally, we would like to push the conversation beyond

a purely supply-based analysis toward demand-side constraints, including the limitations in financial literacy.

The chapter opens with a description of the current knowledge about access to finance in Africa, thereby expanding on the discussion in the previous chapter. We then provide a framework—the access possibilities frontier—for the discussion in the remainder of the chapter. Using this framework, we focus on four specific areas: the current providers of financial services and innovative approaches, the role of technology, the role of demand-side constraints, and the role of government and policy reforms. We end the chapter with a focus on two specific areas of concern: rural finance and the finance of small and medium enterprises (SMEs).

What Do We Know about Access to Finance?

In chapter 2, we chronicle the limited outreach to financial services across Africa in comparison with other regions of the world. Most of the indicators—the relative number of branches, accounts, and so on—are proxies for the overall level of financial service use. Detailed numbers on the banked share of populations across all 53 countries of the region are currently not available, though efforts are under way to make progress in this respect (see box 3.1). Recent enterprise and household

Box 3.1 Measuring Access to Financial Services: Recent Advances

Until five years ago, no cross-country data on the outreach of financial systems and few databases at the national level were available. In 2004, the World Bank launched an effort to collect aggregate proxy indicators on outreach by measuring the number of branches, automated teller machines (ATMs), and deposit and loan accounts (Beck, Demirgüç-Kunt and Martínez Pería 2007). These indicators complemented traditional indicators of financial depth, such as the ratio of liquid liabilities to gross domestic product (GDP) and the ratio of private credit to GDP, but it was not until 2010 that the International Monetary Fund started to mainstream these indicators in the International Financial Statistics database by collecting them systematically. In parallel efforts, Christen, Jayadeva, and Rosenberg (2004) collected data on socially oriented or alternative financial institutions with a double bottom line, while Peachey and Roe (2006) collected relevant information on member institutions of the World Savings Bank Association. Using these proxy indicators and other aggregate variables such as GDP per capita and financial depth, Honohan (2008) estimates the share of households with access to formal financial accounts; these estimates are also reported in World Bank (2008a) and Honohan and Beck (2007). Estimates that less than 20 percent of the households in Sub-Saharan Africa have access to formal financial accounts are based on these extrapolations.

Household survey instruments capturing the use of formal financial services are being applied more consistently across countries. The FinScope and FinAccess exercises in southern and eastern Africa and, more recently, in several West African countries allow comparisons across countries, though their primary purpose is the in-depth analysis of the outreach of national financial markets. Such consistent survey instruments and similar questionnaires allow a more rigorous analysis across countries and over time.

Box 3.1 Measuring Access to Financial Services: Recent Advances (continued)

Since around 2007–08, a more systematic approach to the collection of cross-country survey-based access indicators has been implemented. Gallup has recently undertaken a household survey in 18 Sub-Saharan African countries. The World Bank, with support from the Bill and Melinda Gates Foundation, is initiating a broad cross-country exercise—the Global Financial Inclusion Survey—by including financial questions in an existing Gallup global poll so as to generate baseline data on financial inclusion levels across 150 countries using samples of 1,000 individuals per country. The survey will be run every three years to measure and track specific data on the use of and access to formal and informal financial services.

It is important to note that these indicators, even the more refined ones, are estimates of access to financial services and not exact numbers because they are based on representative samples and not a census. Comparisons across countries and over time should therefore be treated with caution, and even more care should be applied in making subnational comparisons based on small samples.

A related, but separate data collection exercise is going on to gauge the size and effect of barriers, such as the costs of opening and maintaining accounts and documentation requirements, as discussed in chapter 2. First reported by Beck, Demirgüç-Kunt, and Martínez Pería (2008), such indicators show the substantial barriers in Africa compared with other regions of the developing world and the negative repercussions this has for the use of financial services. Assuming, somewhat arbitrarily, that poor people cannot afford to spend more than 2 percent of their annual income on financial services, the fees on checking accounts alone can exclude more than 80 percent of the population in some African countries, such as Kenya, Malawi, and Uganda, from opening bank accounts.^a Efforts are under way to expand this exercise to a broader set of countries and financial institutions.

By relating aggregate proxy indicators of banking system outreach and barrier indicators related to cost, eligibility, and geographic access, Beck, Demirgüç-Kunt, and Martínez Pería (2007, 2008) show that financial breadth is significantly, though not perfectly correlated with financial depth indicators. Financial breadth is significantly correlated with the overall level of institutional and economic development, credit information sharing, and the development of physical infrastructure, though less correlated with more detailed indicators of the contractual framework.

These data collection exercises—aggregate cross-country indicators, in-depth country household and enterprise surveys, and supply-side data collection on barriers to access—are complementary and will allow researchers and analysts not only to obtain a better quantitative picture of the access to and use of formal financial services, but also to identify bottlenecks and gaps and, ultimately, the policy areas in which reforms will have the greatest effect. The first attempts at measuring the access possibilities frontier in South Africa have provided additional insights, and, as detailed data collections proceed for other African countries, similar exercises can be undertaken elsewhere.

a. The 2 percent limit is based on unpublished research by the South African Universal Services Agency in the context of a mandated rollout of telecommunications services for lower-income families. Because financial transaction accounts and telecommunications services can be considered network products, similar assumptions on affordability for both types of service seem reasonable.

Table 3.1 The Use of Formal Banking Services across 18 African Countries, 2009*percent of the respondents to the question "Do you have a bank account?"*

Country	Yes	No	Demographic profile	Yes	No
South Africa	49	50	Residence		
Kenya	29	70	Urban	28	71
Zimbabwe	28	72	Rural	15	84
Nigeria	23	75	Quintile		
Uganda	21	79	Poorest	11	89
Ghana	19	81	Second	11	88
Rwanda	16	84	Middle	15	85
Tanzania	16	84	Fourth	21	78
Malawi	11	89	Richest	38	62
Zambia	9	91	Gender		
Cameroon	8	92	Men	23	76
Chad	7	93	Women	16	83
Côte d'Ivoire	6	94	Age-group		
Senegal	6	94	15–24 years	15	85
Burundi	4	96	25–39 years	23	76
Mali	2	98	40–54 years	21	78
Congo, Dem. Rep.	1	97	55+ years	20	79
Niger	1	99			

Source: Gallup survey data.*Note:* The surveys were conducted in 18 Sub-Saharan African countries in 2009. The data are weighted using adult population estimates for 2008 developed by the World Bank.

surveys on individual countries, however, give us a first indication of the share of households and enterprises that use financial services and thus offer a better picture of who has access to which financial services, even if only in a selected number of countries.

A recent Gallup survey provides aggregate data for 18 African countries, thus representing a third of the countries on the continent (see table 3.1). The data broadly confirm other estimates. They show that the use of formal financial products ranges from 49 percent in South Africa to 1 percent in the Democratic Republic of Congo and Niger. They also show that households in urban areas are more likely than households in rural areas to have accounts, that men are more likely than women to have accounts, and that the use of formal financial services is especially concentrated among the richest 20 percent of the population.

These aggregate survey data give us a reasonably good picture of the use of formal financial services. There is ample evidence, however, that there is widespread use of informal financial services, ranging from moneylenders and deposit collec-

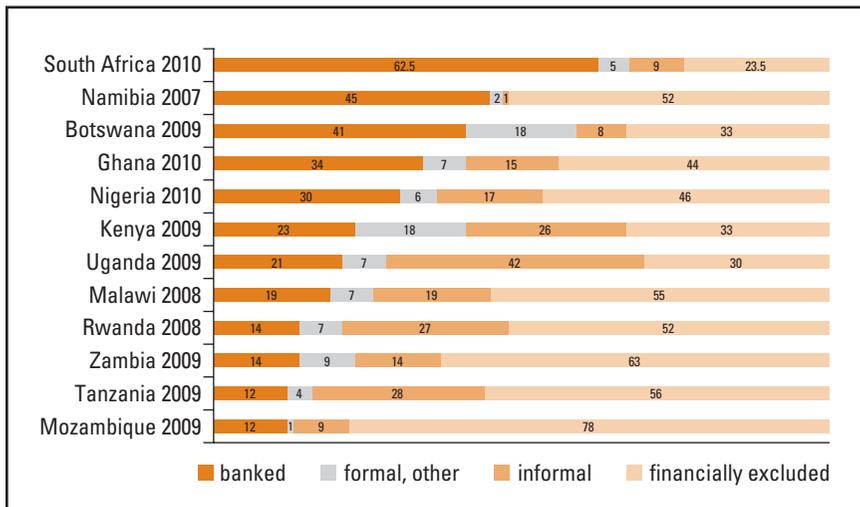
tors over savings clubs to informal financial arrangements among families, friends, and neighbors (Aryeetey et al. 1997). In their financial diaries on a series of developing countries, including South Africa, Collins et al. (2009) document that the poor rely on an array of financial services and financial partners and that the total amount of financial transactions over the course of a year add up to a multiple of incomes over the same period. The financial diary analysis also makes clear that informal financial arrangements are an imperfect substitute for formal financial services, which are out of reach for most of the poor and even parts of the middle class in many African countries. Meanwhile, informal financial services are often unreliable and costly and violate the privacy of customers.

The FinScope and FinAccess surveys in southern and eastern Africa confirm the evidence presented in the financial diaries and elsewhere on the widespread use of semiformal (microfinance providers and cooperatives) and informal financial services. By surveying individuals about a large set of formal and informal financial services and service providers, they give us a good picture of the household use of financial services and the individual characteristics that predict whether someone uses financial services.

Figure 3.1 presents FinScope and FinAccess data on access strands for 12 countries in southern and eastern Africa, that is, the shares of a population that (1) use formal banking services; (2) use formal nonbanking services, but not formal bank-

Figure 3.1 Access to Financial Services across Southern, Eastern, and Western Africa

percent of survey respondents



Source: FinScope (database), FinMark Trust, Johannesburg, <http://www.finscope.co.za/new/pages/default.aspx> (accessed in 2010).

Note: The FinScope and FinAccess survey years are indicated next to the names of the countries.

ing services; (3) use informal services, but not formal services; and (4) are completely excluded from any formal or informal financial service. As we can see, there is wide variation across countries. While, in South Africa, 62.5 percent of the surveyed population uses formal banking services, only 12 percent do so in Mozambique and Tanzania. However, the segments of the population lacking access to formal banking services often use informal or semiformal services. The second strand of financial access—users of formal nonbank services, such as microfinance institutions (MFIs)—accounts for 18 percent in Botswana, but only 1 percent in Mozambique. Finally, the segment of the population with access to informal services, but not formal services (the third strand) ranges from 1 percent in Namibia to 42 percent in Uganda. A large segment of populations are considered excluded from both formal and informal services, though the extent varies significantly across countries, ranging from 23.5 percent in South Africa to 78 percent in Mozambique.

Household survey data do not only allow us to focus on the aggregate numbers, but they do provide a picture of the composition of the banked population (Honohan and King 2009). Univariate comparisons between the banked and unbanked segments of the population according to characteristics and multivariate regression analysis offer insights into the composition of the banked population. One of the most robust predictors of formal financial service use is income (often measured by expenditures): more well off individuals are significantly more likely to use formal services.¹ Education is another strong predictor: the use of formal services increases linearly with educational attainment. Geography measured by rural or urban residence is not as strongly associated with the use of formal services once we control for other household and individual characteristics. Employment status is another important correlate of the use of formal services, while financial literacy, numeracy, and risk aversion are less consistently correlated with the use of formal services. We also find a positive correlation with the ownership of a mobile phone, suggesting that participation in the market economy is related to higher demand for financial services.

One important dimension is gender: across countries, women are less likely to have bank accounts. This is confirmed by the FinScope and Gallup surveys. Is this gender gap caused by discrimination, lower demand by women for financial services, or disadvantages along some other dimensions, for example, education or formal employment? Using FinScope and FinAccess data and controlling for other individual characteristics such as income, education, and formal employment, Aterido, Beck, and Iacovone (2011) find that women are as likely as men to use formal services. This suggests that the narrower coverage of women by banks in southern and eastern Africa is not necessarily caused by lower demand or by discrimination within the financial system, but, rather, by the fact that women are less likely to use formal banking services because they have lower incomes and lower levels of educational attainment and are less likely to hold formal jobs. There may also be a demand dimension given that many women already have indirect access to formal banking services through bank accounts in the names of their husbands.

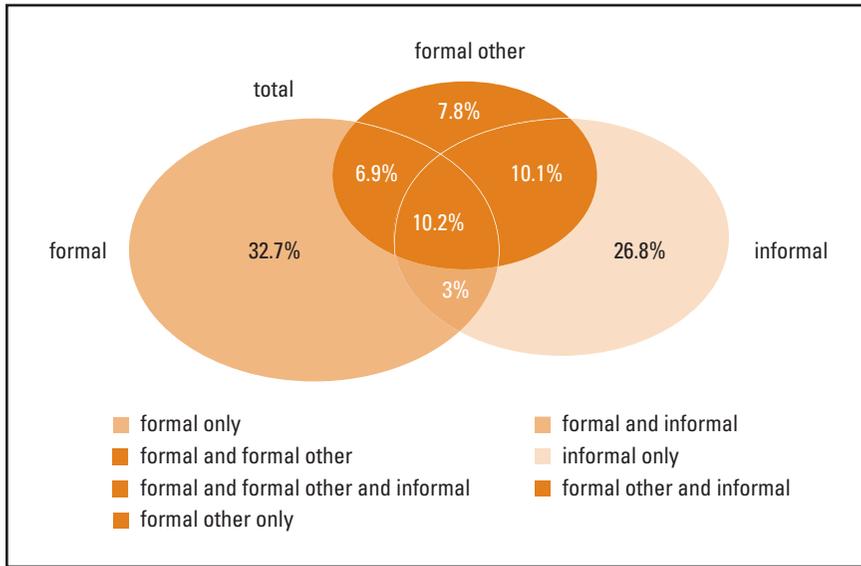
This is not to downplay the problem of intrafamily resource conflicts, a phenomenon widely documented in the literature (for example, see Goetz and Gupta 1996) or the problem that women in Africa are discriminated against along other dimensions (Hallward-Driemeier 2011). The only country in which there seems to be somewhat of a bias toward women is South Africa, the richest among the nine countries in the Aterido, Beck, and Iacovone (2011) study. Across the nine countries, women are significantly more likely to use informal services, especially in the eastern African countries. In comparing the excluded population of men and women, the authors find that, overall, women are less likely to be excluded from any financial service. It is important to note that these results are for southern and eastern Africa; so, they may not hold for other parts of the continent. However, they point to an important caveat in the exploration of the characteristics of the banked population, that is, one must look beyond univariate correlations to search for the truly restricting household and individual characteristics preventing people from accessing formal financial services.

An analysis of enterprise data leads to similar conclusions. Firms with female ownership participation are no less likely to have loans, and they rely on external finance to fund the same share of working capital or fixed asset investment (Aterido, Beck, and Iacovone 2011). This finding can be explained through a selection bias: women are less likely than men to run sole proprietorships, and firms with female ownership participation are smaller, but more likely to innovate. This conclusion is in line with findings reported in a study on women and entrepreneurship in the North African subregion (CAWTAR and IFC 2007). The study shows that access to finance is not among the three most important barriers facing women entrepreneurs in Tunisia, mainly because of the high level of education of the women entrepreneurs interviewed.

There are undoubtedly a host of legal, social, cultural, historical, and economic traditions, concepts, and practices that account for the varying gender-based differences in access to finance, and this book cannot possibly explore them adequately. In any case, the developmental implications are significant for Africa. Through varying degrees of commitment for policy action, women's contributions to economic development have long been recognized in households, food production systems, and national economies. Increasing women's access to finance is central to expanding their economic and social opportunities and advancing women's rights and, in turn, Africa's broader development prospects.

Household surveys also allow us to track outreach and access to financial services over time, even though the surveys are repeated cross-sectional surveys and not true panels. For example, household data were collected in 2006 and 2009 through the FinAccess surveys in Kenya. A comparison of the two surveys shows an increase in the use of formal financial services, but not at the expense of the use of informal services. It also shows changes in the use of certain financial service providers; in this case, this involved less use of savings and credit cooperatives (SACCOs) and more prominent use of MFIs.

Figure 3.2 **Overlap among Users of Formal and Informal Financial Services in Kenya, 2009**



Source: FinAccess (2009).

Note: The figure shows the relative shares of surveyed individuals that use formal or informal financial services or some combination thereof.

Household surveys have also confirmed the findings of previous country-level studies indicating that informal financial service provision is important across Africa. While only 23 percent of the population uses formal financial services in Kenya, more than 50 percent use informal services. Digging deeper, as in the financial diaries, one notices that most individuals use a variety of financial products and providers. Informal financial services are important for large shares of the enterprise and household population, and this will continue to be true. The caricature of the moneylender demanding usury interest rates as representative of informal financial services has to be qualified. Informal financial service providers range from bus drivers who accept remittance payments to rotating savings and credit associations and accumulating savings and credit associations in urban and rural areas. Figure 3.2 shows that there is an overlap among the users of formal and informal financial services in Kenya. The FinAccess survey in 2009 found that over 50 percent of users of formal banking services also used informal financial services.

Formal institutions have also made inroads in areas in which informal providers once dominated. The best example is the domestic remittance market in Kenya, where the introduction of M-Pesa has crowded out informal and other formal delivery channels for domestic remittances (FinAccess 2009). In the FinAccess survey of 2006, a relative (weighted) majority of the people surveyed named specialist

money transfer operators as the least risky and most rapid channel for sending remittances, and friends and family as the least expensive and most easily accessed. In 2009, M-Pesa was rated the least risky, the most rapid, and the most easily accessed, but the second least expensive. M-Pesa has not only had an impact on perceptions, but also on remittance flows. The market entry of M-Pesa may explain the increase in remittance flows within Kenya. In 2006, 16.5 percent of the people surveyed reported that they had received a domestic remittance, but, in 2009, the share was 51.8 percent. Similarly, in 2006, 16.9 percent of the people surveyed reported that they had sent a domestic remittance, while, in 2009, the share was 35.3 percent. One can certainly not attribute this increase in remittances exclusively to M-Pesa, but these numbers suggest that M-Pesa has had a positive impact on people's lives and livelihoods.

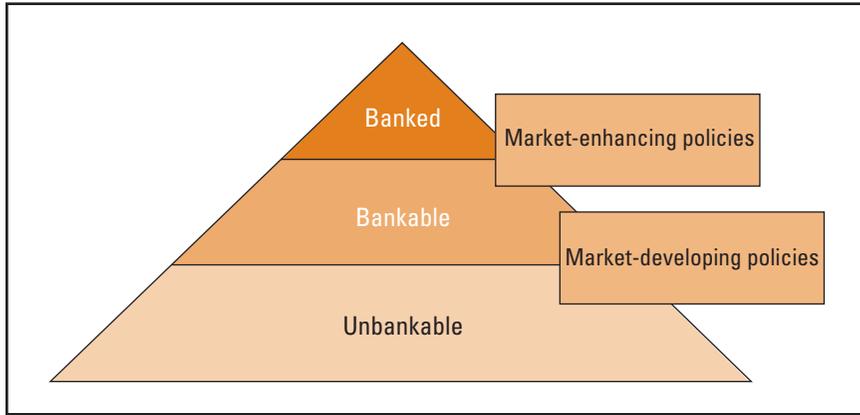
Broadening Finance: A Reality Check

How realistic is it to expect the formal financial system to reach 100 percent of the population? What are realistic benchmarks and targets in the effort to expand access to financial services? Measuring access to financial services is an important first step. However, to develop policies and targets, benchmarks are needed, and the bottlenecks inhibiting the expansion of access have to be identified.

Access to finance is limited. If African policy makers wish to double the share of populations with access to some type of formal financial service, what has to be done? In the following, we present a framework and identify four areas for discussion and policy reform: the institutions and products that allow African financial systems to expand outreach, the demand-side constraints and solutions, the role of technology, and the role of governments and donors.

To provide an analytical framework for our discussion throughout the remainder of the chapter, we build on the discussion in chapter 1 and introduce the concept of the access possibilities frontier. This frontier is the point of the maximum possible commercially viable outreach of the formal financial system given the technology and the macroeconomic and institutional framework (Beck and de la Torre 2007). This concept allows us to distinguish among the banked, bankable, and unbankable population and provides us with a framework to discuss the bottlenecks impeding efforts to reach the frontier (turning the bankable population into the banked population) and push the frontier outward (turning the unbankable population into the bankable population) (figure 3.3). This concept can also serve as a reality check on the ambition to expand the access to financial services. Finally, it provides a framework to distinguish exogenous trends and developments—such as technology, globalization, and regional integration—and government policies, including regulation.

To understand the limitations to outreach, we first return to the discussion in chapter 1 on the two main barriers that financial institutions face in reaching out to previously unbanked segments of the population: (1) transaction costs and the re-

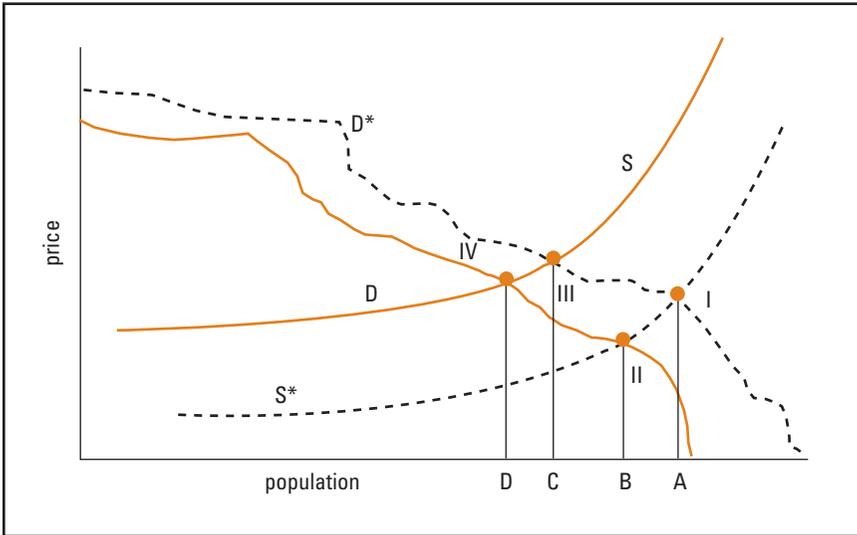
Figure 3.3 Increasing the Use of Banking Services: A Framework

Source: Author compilation.

sulting scale economies of financial services at the level of the user, the institution, and the market and (2) systemic and idiosyncratic risks. To complement these supply-side constraints, we differentiate between economic and noneconomic factors on the demand side that may lead to self-exclusion.²

Fixed transaction costs in financial service provision result in decreasing unit costs as the number or the size of transactions increases. Screening and monitoring a borrower entails costs that are, at least in part, independent of the value of the deposit or loan. At the level of a financial institution, fixed costs are crucial; they span a wide range—from the brick-and-mortar branch network to computer systems, legal services, accounting systems, and security arrangements—and are rather independent of the number of accounts or clients. Fixed costs also arise at the level of the financial system, including regulatory costs and the costs of payment clearing and settlement infrastructure, which are, up to a point, independent of the number of institutions regulated. Profitable and sustainable financial institutions have to exploit the resulting scale economies by either sufficiently high-volume transactions or sufficiently high-value transactions. In terms of outreach, this implies a focus on high-volume transactions, thus spreading the fixed transaction costs across a group of customers that is as large as possible. Alternatively, one can look for technologies and products that are not traditional bank products and delivery channels, but that represent a significantly lower fixed cost element.

In addition to costs, the outreach in the supply of financial services, especially credit services, is constrained by risks, especially the default risk (discussed elsewhere above). While financial institutions can influence their costs and risks to a certain degree, they are constrained by state variables, that is, factors that do not change in the short run and affect financial sector activity across the board. These factors might include market size, macroeconomic fundamentals, the available

Figure 3.4 The Access Possibilities Frontier of Payment and Savings Services

Source: Beck and de la Torre (2007).

Note: See the text for an explanation of the figure.

technology, the average level and distribution of per capita income, and the system-wide costs of doing business that are related, for instance, to the quality of the transportation and communications infrastructure, the effectiveness of the contractual and informational framework, and the degree of general insecurity associated with crime, violence, terrorism, and so on.

Using the concept of state variables allows us to define the access possibilities frontier as a rationed equilibrium, that is, the maximum share of potential clients that can be served by financial institutions prudently. This frontier is a different one for savings/payment services, where the transaction costs are the decisive market friction, and for credit services, where the risk dimension is an additional important friction. Figure 3.4 illustrates the demand and supply for a standardized payment service for which the fee is assumed to be flat, that is, independent of the amount to be transferred. The horizontal axis represents the share of the population (households and firms) engaging in payment and savings transactions, rather than the quantity of service transactions. The population is ordered along the axis starting with agents engaging in transactions that are large in value and number and moving toward agents engaging in transactions of increasingly lower value and number. The downward sloping demand curve D^* reflects the willingness to pay and the assumption that customers with a demand for large-value, high-volume transactions have a higher marginal willingness to pay than customers relying on transactions that are few and small. The upward sloping supply curve S^* reflects

the potential of efficient financial institutions to reach out to a larger share of the population as the fee increases.³ The intersection of the supply and demand curves (point I) constitutes the access possibilities frontier.

We can use the access possibilities frontier to identify several types of problems in access to financial services and policies to address these problems (see figure 3.4). We denote the maximum commercially viable demand and supply curves by D^* and S^* , respectively. The intersection of the two, point I, can therefore be seen as the maximum commercially viable share of the population with access to formal payment and savings services. A first type of access problem may arise because of supply suboptimization, whereby financial institutions and markets settle at a point below the access possibilities frontier (curve S, point III). This might reflect, for instance, regulatory distortions or insufficient contestability that lead financial institutions to avoid exploiting all the outreach opportunities fully because of the state variables. We discuss hereafter the need for a diversified landscape of financial service providers so that competition can be increased and the system can be pushed toward the frontier.

A second type of access problem originates in demand. It consists of a number of loan applicants that is too low simply because of the self-exclusion resulting from cultural barriers or financial illiteracy (curve D, point II).⁴ Similarly, there might be a lack of demand for payment and savings services because these products may be accessed indirectly through family and friends or avoided for cultural or religious reasons. However, there may also be a lack of knowledge about the advantages of certain financial products or a general aversion to formal institutions. We therefore discuss financial literacy hereafter as an important, though not well-tested policy to address demand-side constraints. A different access problem that can arise mainly in credit markets is associated with excess access, that is, an equilibrium above the access possibilities frontier, whereby loans are granted to a larger share of loan applicants than is prudent based on the lending interest rate and the state variables (covered in chapter 5).

A final access problem involves a prudent access possibilities frontier that is too narrow and thus reaches out to a bankable population that is too small because of deficiencies in state variables relative to countries at similar levels of economic development. We are able to distinguish here between the role of technology in expanding the frontier outward and the role of government policies.

The remainder of this chapter will use this framework to discuss the possibilities for addressing these challenges.

Landscaping the Providers: How to Get to the Frontier

Household surveys have documented a large array of providers of formal financial services. Banks still play a prominent role, but, increasingly, other institutions are emerging, including nonfinancial companies, such as telecommunications compa-

nies. As we discuss above, this has been complemented by a large set of different informal financial service providers.

Which institutions can help push the financial system to the frontier? Are specific institutions better than others in serving underbanked segments of the population and helping overcome the market frictions of transaction costs and risk? In the following, we argue that different institutions target different groups and that no single type of institution is the silver bullet. This may change over time as new technologies emerge and market structures change.

Banks

The dominant providers of formal financial services in Africa are still banks, but the universe of banks in Africa today is a diverse one, ranging from large multinational banks with European parents to small domestically owned niche banks. There are also several commercial banks supported by public or private donors, such as OPM in Malawi and the Development Finance Company of Uganda. Rabobank has expanded recently into several African markets based on the cooperative banking experience it acquired in the Netherlands.

One contentious item on the agenda has been the role of foreign-owned banks. Africa's banking systems were dominated by foreign-owned banks before independence. Subsequent nationalizations and indigenization reduced the share of foreign ownership significantly. During financial liberalization in the 1990s, many foreign banks returned, and new foreign banks, especially from South Africa and western Africa, expanded throughout the region. By the early 2000s, almost half of Africa's financial systems were dominated by foreign-owned financial institutions, with the notable exception of North Africa, where banking is still dominated in several countries by government-owned banks. Foreign banks are often accused of cherry-picking the high-end wealthy customers, but their role in outreach has to be qualified: the population of foreign banks is more diverse now than it was 20 years ago. Regional banks from West Africa, especially Nigeria, and from South Africa have often brought competition and new products into domestic markets. The Bank of Africa, a West African bank partly owned by BCME Bank of Morocco, has expanded throughout the continent. In South Africa, Absa (now majority owned by Barclays Bank, but still managed from Johannesburg) and Standard Bank have introduced new technologies and products in the host countries of their subsidiaries.

Banks have grown beyond the concept that microfinance is mainly only a corporate social responsibility and have discovered the bottom of the pyramid as a potential client base. Many commercial banks have therefore progressed past traditional products and delivery channels and recently adopted new products and delivery channels. In The Gambia, Oceanic Bank offers deposit collection services, providing traders and other small-scale businesses with a *condaneh* (or box, in the local parlance) in which they store their daily revenue and which is picked up in the evening by a bank employee. In Ghana, Barclays Bank has piloted an initiative

to make microloans to *susu* collectors (a local term of unclear origin that now refers to accumulated money) for onlending to the clients of the collectors. The bank uses the *susu* collectors as an intermediary to extend loans and mobilize savings to productive rural communities. The *susu* collectors intermediate on behalf of the bank, conduct appraisals for prospective borrowers, and advise the bank on risky ventures within the communities. Barclays also provides *susu* lenders with deposit accounts and training sessions. Indeed, Barclays has expanded the program—promoting access through partnerships—to other intermediaries, that is, credit unions and trade associations. Building on this experience, *Pesewa Power Trust* (PPT), a technology-based *susu* system, will soon be introduced onto the Ghanaian market. All PPT *susu* contributors will be issued personal smart cards that register all their micropayments. PPT *susu* collectors will also wear PPT uniforms and have a smart card collection device for easy identification.

Commercial banks have also initiated cooperative efforts with MFIs or directly started them. One successful example is the partnership between Ecobank and ACCION International in Cameroon that was formed in April 2010. Both partners have launched EB-Accion Microfinance to provide microcredit and savings products to currently unbanked Cameroonians (Ecobank 2010). Ecobank also supports 200 MFIs on the continent in wholesale loans and other products (ACCION 2011). Absa has moved into South Africa's microfinance market and, in partnership with CompuScan, built Microfinance Enterprise Service Centers, which are freight containers functioning as rural mobile lending outlets. To reach rural and remote areas, the centers are fitted with third-generation mobile telecommunications, general packet radio service, and satellite connectivity that are linked to CompuScan's South African credit bureau database. Prior to the rollout, Absa, together with Fin-Mark Trust, invested a lot of effort in understanding the market for microfinancial products in general by learning from ICICI Bank, in India, and the scope of South Africa's market potential in particular. In Morocco, Banque Populaire du Maroc has, since 1999, operated a microcredit subsidiary, Fondation Banque Populaire pour le Micro-Crédit, which acquired, in 2009, the Fondation Zakoura, one of the leading players in the market. In the Arab Republic of Egypt, service companies, a new category of microfinance providers, are acting as agents for banks in the provision of microfinance services.

The importance of government-owned commercial banks has declined in recent years mostly because of the privatization process. The initial fears that the privatizations in favor of large multinational banks would lead to a decrease in outreach have not been confirmed across the board, but neither have the hopes that the privatizations would lead to a wide-scale increase in outreach and competition. Experiences in Tunisia, Uganda, and Zambia have shown that careful privatization of these institutions can increase efficiency and stability, while not reducing outreach. In Uganda, the largest government-owned bank, Uganda Commercial Bank, which was also the largest bank in the system, was successfully privatized (after an initial failure at privatization) to the Standard Bank of South Africa. Al-

though an agreement not to close any branches was in place for only two years following the sale of Uganda Commercial Bank, Standard Bank kept all branches in place and even opened new ones. It also introduced new products and increased agricultural lending (Clarke, Cull, and Fuchs 2009). Similarly, the privatization of the Tunisia-based Banque du Sud in favor of Attijari Wafa Bank and the rebranding of Banque du Sud as Attijari Bank led to a 78 percent expansion of the bank's network and the development of a range of new products within five years of the privatization. The case of Zambia National Commercial Bank, which was privatized in 2007 in favor of Rabobank, based in the Netherlands, shows how a formerly wholly state-owned financial institution can branch out, establish agency arrangements with local partners (gas stations, post offices), and introduce mobile phone technology to facilitate low-cost transactions in an effort that holds promise to increase the bank's deposit base substantially and convey a healthy demonstration effect among private banks.

The example of Uganda, however, also shows that privatization and foreign bank entry is not a panacea for increasing efficiency and competition in a banking system. Beck and Hesse (2009) find that there was no significant impact of privatization and of increased foreign bank participation on interest rate spreads, and Cull and Trandafir (2010b) show that the Ugandan banking system is segmented (see the discussion in chapter 2).

If privatization is not feasible, the turnaround of such institutions by external management teams can also be successful under the proper conditions. Such a turnaround would rely on the franchise value of the large network and customer base, while leveraging private expertise. The example of the National Microfinance Bank of Tanzania has been heralded as a success story (Dressen, Dyer, and Northrip 2002). Government-owned banks that focus completely on deposit services, such as postal savings banks, have a safer record in terms of fragility than government-owned commercial banks, though they often suffer from poor service quality. Nonetheless, some of these institutions have been at the forefront in expanding access, such as in Morocco, where the transformation of postal savings banks has helped increase the access to financial services.

Development finance institutions (DFIs) are more important in financial terms than government-owned commercial banks. While it is more difficult to obtain hard data because DFIs are not subject to central bank supervision, country reports suggest that there is a substantial number of such institutions in many countries of the continent. The evidence on the success of these institutions is mixed, however. We return to this topic in chapter 4 and in our discussion of rural finance below.

Microfinance and cooperative institutions

Over the past decade, MFIs have become an important segment of the financial system in terms of outreach if not also in volume. One of the advantages of microfinance is nimbleness, responsiveness, and its ability to adapt to environments, including in conflict-affected areas. MFIs have traditionally targeted women, who

Table 3.2 Total Borrowers, Depositors, and Penetration Rates, 2008*totals and percent*

Indicator	Africa	North Africa	East Africa	Southern Africa	Central Africa	West Africa
Population below national poverty line	420,758,767	30,637,572	87,304,988	70,162,168	63,983,852	168,670,188
Total borrowers	9,250,759	2,205,769	3,750,164	1,089,481	285,394	1,919,951
Penetration rate, borrowers	2.2%	7.2%	4.3%	1.6%	0.4%	1.1%
Total depositors	17,324,291	41,961	8,799,457	2,131,460	736,994	5,614,419
Penetration rate, depositors	4.1%	0.1%	10.1%	3.0%	1.2%	3.3%

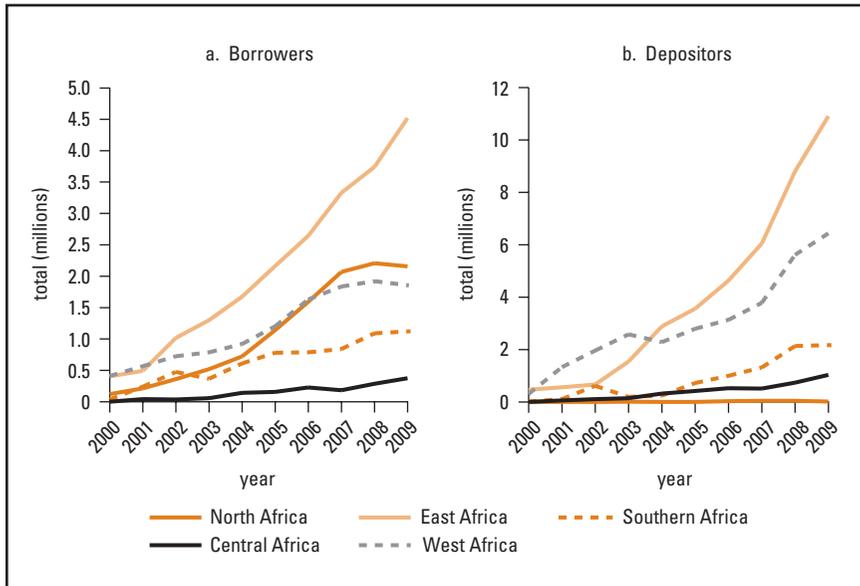
Sources: Author calculations based on Mix Market (database), Microfinance Information Exchange, Washington, DC, <http://www.mixmarket.org/data-center>; World Development Indicators Database, World Bank, Washington, DC, <http://data.worldbank.org/data-catalog/world-development-indicators/>; World Factbook (database), Central Intelligence Agency, Washington, DC, <https://www.cia.gov/library/publications/the-world-factbook/#>.

make up a significant proportion of the poor and suffer disproportionately from poverty. As discussed elsewhere above, women face an array of barriers to access in the formal banking system.

Until 2008, the sector experienced impressive growth in outreach and operational self-sufficiency. However, the crisis affected the attempt of microfinance to expand. Food and fuel price increases and a severe financial and global economic contraction exerted severe strain on MFIs across Africa in 2008 so that growth was slowed significantly. Since the onset of the crisis, MFIs have generally not expanded their client base, instead concentrating on trusted, known borrowers. Despite the crisis, however, there has been less volatility in returns, and fewer MFIs are incurring significant losses than was the case in 2007 (MIX and CGAP 2010). MFIs have been also facing more difficulties in raising funding as credit spreads widened and the resources from donors became more scarce (MIX and CGAP 2010). In international comparison, however, Africa has fared better than other regions and was already showing signs of recovery in 2009, while the East Asia and Pacific region and the Eastern Europe and Central Asia region experienced negative growth rates during that year.

The sector's resilience in the face of the crisis is laudable. Nonetheless, Africa is still relatively underserved by MFIs compared with other parts of the developing world, and most of the institutions are focused on urban rather than rural areas. At the end of 2008, MFIs in Africa reported that they were reaching 9.2 million borrowers and a significantly larger number of depositors, 17.3 million.⁵ Both numbers, however, are below the 20 million microfinance clients in Bangladesh. With considerably more borrowers than the Eastern Europe and Central Asia region and the Middle East region, these numbers still bring Africa's penetration rate among borrowers (relative to the population living below the national poverty line; see table 3.2) to only 2.2 percent, which is significantly lower than all other regions

Figure 3.5 Total Borrowers and Depositors across African Subregions, 2000–09



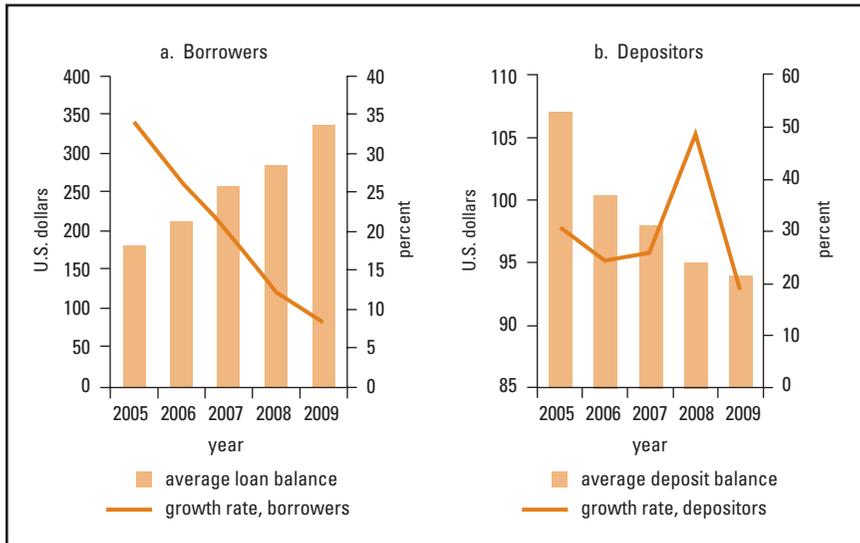
Source: Mix Market (database), Microfinance Information Exchange, Washington, DC, <http://www.mixmarket.org/data-center>.

Note: All figures provided by Mix Market represent trends because not all MFIs in a country report to the database.

aside from Eastern Europe and Central Asia.⁶ The depositor penetration rate is somewhat higher, at 4.1 percent.

The penetration rates vary greatly across the continent. While borrower penetration rates are 7.2 and 4.3 percent, respectively, among North and East African MFIs, Southern, Central, and West African MFIs deliver loans to only 1.6, 0.4, and 1.1 percent, respectively, of the population living below the national poverty line. Among depositors, East African MFIs have a penetration rate of 10 percent, while MFIs in West and Central Africa reach only 1.2 and 3.3 percent of the poor, respectively. Southern and North African MFIs reach even fewer poor depositors: only 3.0 and 0.1 percent, respectively. This variation is remarkable given that all subregions started out at a similar level in 2000 in terms of the numbers of both borrowers and depositors (figure 3.5). For example, East African MFIs did not experience depositor growth spurts until 2002, but then grew significantly through the crisis and beyond (figure 3.5, chart b). Meanwhile, North African MFIs have seen little growth in depositor penetration over the past 10 years, which is a result of restrictions they face on deposit collection. The differing penetration rates between the credit side and the deposit side reflect the contrast in the models for MFIs across the subregions. Thus, North African MFIs focus on credit provision, while MFIs in other subregions focus on deposits (table 3.2 and figure 3.5).

Figure 3.6 Borrower and Depositor Growth Rates and Average Loan and Deposit Balance, 2005–09



Source: Mix Market (database), Microfinance Information Exchange, Washington, DC, <http://www.mixmarket.org/data-center>.

Note: All figures provided by Mix Market represent trends because not all MFIs in a country report to the database.

This underlines another interesting development on the African continent: while borrower growth rates slowed for the five years to 2009, depositor growth rates accelerated, except for 2009 (figure 3.6). A comparison across regions shows that, in 2008, the depositor growth in Africa was only paralleled by the Middle East, leaving all other regions far behind; some, such as East Asia and the Pacific, experienced negative growth rates. In 2009, the declining growth rates were in line with other regions, apart from East Asia and the Pacific, which had recovered slightly from the negative growth rate in the previous year. Depositor growth rates within the region have been persistent in recent years, and, with the notable exception of North Africa, all subregions increased their depositor base from 2007 to 2008. While depositor growth accelerated in the five years to 2009, the average deposit decreased consistently, falling another 1 percent from 2008 to 2009. While borrower growth rates decreased, average loan balances increased. This rise and fall was consistent in Africa over the period. One assumption is that, because MFIs were not expanding their client base, they were able to grant higher loan balances to their current clients. Simultaneously, existing clients may have been more in need of larger loans because of the higher food and fuel prices and other effects of the crisis.

Among borrowers, women make up the majority, consistent with the original goal of MFIs to target women as a disadvantaged group. On aggregate, since 2007,

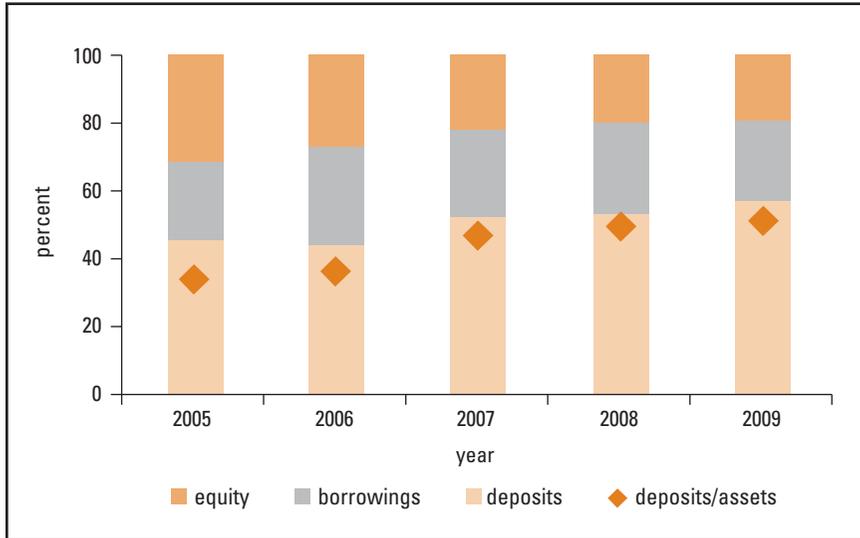
women borrowers account for around twice as many borrowers as men on the continent. Looking at the median MFI, however, we see a different picture: in 2009, only 52 percent of the borrowers were women.

Early on, African MFIs shifted toward an individual lending model and away from the microcredit model implemented by Muhammad Yunus in Bangladesh that initially focused on group lending. Indeed, MFIs in West Africa never used the latter model in the first place.

There is a large variety of institutions offering different products and targeting different clients. One may observe throughout the continent different ownership and organizational models, including the cooperative model, the model based on nongovernmental organizations (NGOs), and the microbank model. There are also different sources of funding for MFIs, ranging from donor funding to commercial funding, funding through the savings of members (in the case of cooperatives), and government funding, in Ethiopia for example. While most of these institutions were originally set up to provide credit only, some of them have started offering other financial services, including deposit services. Notably, MFIs in West Africa offered both savings and credit services from the beginning, though this was limited to members. Several countries have introduced a regulatory framework to support deposit-taking MFIs, a topic to which we return in chapter 5.

The increasing focus on deposit services is also reflected in the funding structure of MFIs. Even though the funding sources for microfinance around the world have become increasingly diverse, including an array of crossborder flows, local funding remains the key source for growth in the African context (MIX and CGAP 2010). In international comparisons, African MFIs have been generally successful in mobilizing deposits: deposits reached 57.3 percent of overall funding in 2009 (figure 3.7). During the financial crisis, the institutions that relied more on deposits as their main funding source fared better. A large share of the deposits across different MFIs are voluntary deposit accounts rather than compulsory savings. According to the Microfinance Information Exchange and the Consultative Group to Assist the Poor, the structural composition of funding varies strongly by type of organization (MIX and CGAP 2010). Deposits are an important funding base for credit unions and bank MFIs, while NGOs are substantially more dependent on grants and wholesale borrowings as a source of funding. Across all regions, Africa has the lowest rate of borrowings as a source of funding, at 23.4 percent in 2009. In recent years, private financiers, including banks, have come to play a more important role in funding compared with donors, especially in North Africa. Donor funding is, not surprisingly, also unevenly distributed, with a heavier focus on low-income countries (MIX and CGAP 2010).

The discussion on the merits of the commercialization of microfinance—which has become personalized in the debate between Muhammad Yunus and the Mexican microlender Compartamos—centers on the interest rates that microfinance borrowers should be charged. Should they be commercially viable or subsidized? The discussion can be easily politicized, as the recent experience in Andhra Pradesh

Figure 3.7 The Funding Structure of African MFIs

Source: Mix Market (database), Microfinance Information Exchange, Washington, DC, <http://www.mixmarket.org/data-center>.

Note: All figures provided by Mix Market represent trends because not all MFIs in a country report to the database.

in India shows. While the debate has not yet touched Africa on a wide scale, commercial microlenders—nonbank financial institutions that mainly provide consumer loans at high interest rates—have been shunned by the microfinance community in South Africa.

The mantra upon which microfinance is built—reaching out to the poor—has also been the main challenge of microfinance. A consensus has developed that the poorest of the poor do not really benefit from microfinance services, but need other support. Over time, the challenge has therefore become to reach the poor with products that will yield the best possible outcome. Much research has been conducted to determine the products that might be most beneficial to the poor. The initial focus on credit services has been questioned in the literature and by practitioners. The analysis of financial diaries carried out by Collins et al. (2009) has shown that the poor lack appropriate savings instruments and credit facilities. The experiences reported by the authors suggest that savings and credit may be interchangeable in the minds of the poor, the only difference being that large expenditures—such as weddings, funerals, or emergencies—are possible at the end of the contract period in the case of savings, while, with credit, they are possible at the beginning; meanwhile, both equally involve regular payments over time. Recent evidence from Kenya shows that enterprise development can, indeed, be fostered through the provision of credit, but also through the provision of more effective

savings instruments. Through a field experiment in rural Kenya, Dupas and Robinson (2009) show that access to savings accounts had a substantial, positive impact on the levels of productive investments among market women and, within six months, led to higher incomes. Their findings imply that a significant fraction of women entrepreneurs have difficulty saving and investing as much as they would like and therefore represent a potential clientele for formal savings products even if these offer negative interest rates. Intra-household conflicts and time-inconsistency problems—short-run impatience (high-discount factors in the near future) and long-run patience (low-discount factors in the far future)—prevent many poor households from saving despite the inherent demand for savings products. Learning from informal arrangements such as rotating savings and credit associations, MFIs have therefore developed deposit collector services and savings commitment products for their clients, including limited access to savings until a target amount has been reached (Ashraf et al. 2003).

A major challenge facing MFIs in Africa is the need to move beyond urban areas toward rural areas. Data on a few selected countries clearly suggest that, in most countries, MFIs still operate mainly in urban areas. In Tanzania, for example, only 1 percent of the rural population saves with MFIs, while 7 percent of the urban population fits this category (Napier 2011). In Nigeria, 208 of the country's 901 microfinance banks are in Abuja and Lagos, while two of the northern states, Jigawa and Katsina, have only 12 microbanks between them despite a combined population of 10 million (Napier 2011). In this respect, MFIs face the same challenges as other financial institutions, including banks: especially physical infrastructure deficiencies make outreach costly. MFIs in Africa face higher cost barriers than MFIs elsewhere. The average ratio of overhead costs to assets is 22.5 percent, compared with 17.4 percent in non-African developing countries.⁷ High staff salaries have been one of the main costs. The ratio of the average salary to gross national income per capita is nearly three times higher in Africa than in other regions. Significant competition among MFIs and from banks, as well as the lack of an ample qualified labor force, may be one of the reasons for the high operating costs and staff salaries (MIX and CGAP 2010). Moreover, the ratio of borrowers per staff member has not increased in recent years. The high operating costs are also driven by the high costs of processing, monitoring, and collecting payments, which reflects not only infrastructure deficiencies, but also demand constraints and the substantial level of information asymmetry.

In overcoming these cost constraints, MFIs have made gains by using technology, especially cell phone-based technology. Particularly in countries where mobile banking (or m-banking) is already available, examples abound. Tujijienga Tanzania, an MFI in Tanzania, has made the repayment of individual loans via M-Pesa mandatory below the threshold of US\$1,800. In Kenya, various MFIs offer the possibility of loan repayments through M-Pesa for individual loans, but also group loans. Deposit-taking MFIs such as Faulu Kenya allow their customers to deposit through M-Pesa. In Malawi, MFIs have used biometric technology, based on a

physiological characteristic (fingerprint, face, eye iris, or retina) or behavioral characteristic (speech or signature) to identify customers. Preliminary evidence has shown that this can help increase repayment rates, especially among borrowers with ex ante high risk profiles (Giné, Goldberg, and Yang 2010).

It is rather difficult to jump-start a microfinance industry through a licensing window or some other special regulatory process. A regulatory framework helps mainly at a later stage. In Uganda, for example, the push for a regulatory framework to support deposit-taking microfinance banks arose from within the MFI industry, which realized that the industry could not grow and become viable without proper regulation. The need for a special regulatory framework for MFIs so as to encourage market entry has to be balanced with the concern about regulatory arbitrage, that is, institutions choosing to adopt this form to avoid more burdensome bank regulations. Forcing MFIs to focus on specific sectors or regions can backfire. Meanwhile, donor support facilitated the establishment of a significant microfinance industry in Madagascar, though the sustainability of this industry will have to be managed carefully through a gradual withdrawal of the support.

MFIs can suffer from excessive ambition that translates into significant, but poorly managed growth. For instance, several MFIs in Morocco recently implemented extensive growth strategies to increase their market shares, but they did not accompany this growth by assembling appropriate human and information technology resources. This led to significant pressure on the microfinance industry. In attempts to jump-start microfinance, donors sometimes provide too many resources to MFIs without also providing the necessary capacity to absorb these resources. The example of *Crédit Mutuel* of Guinea shows how this can backfire. This was the largest MFI in the country until it had to be shut down in the early 2000s because it had lent excessively without proper screening or monitoring systems after it had received substantial resources from donors, including the French Development Agency and the World Bank.

SACCOs, which are member-based financial institutions that lend and take deposits, are an important player in many African countries. In many countries, these institutions function in the semiformal arena: they are registered by an authority (such as the ministry of cooperatives), but are not formally supervised as banks are. The cooperative model is based on the cooperative movement in Central and Western Europe (Austria, France, and Germany) that has often been credited with the almost universal access to financial services in these countries, including access to credit among farmers, thus helping rural areas develop. Donors have tried to implement this concept in developing countries, including in Africa. Local circumstances, however, have to be taken into account. Countries with communities having deep roots and little migration offer themselves to this kind of initiative, while countries or regions with large migration flows and less tightly knit community links may be less appropriate. A similar argument can be made to

defend the idea that group lending as a lending model is less attractive in Africa than elsewhere.

In most countries, these institutions suffer from a limited skill base and a lack of capacity. Apex institutions, supported by donors through technical assistance, can help overcome these barriers. The Co-operative Bank of Kenya was, for a long time, considered a success story, but it has recently experienced problems in governance. In Rwanda, the cooperative network of the Union des Banques Populaires du Rwanda was initially established with technical support from the Swiss government, but suffered from financial and operational deterioration in the wake of the conflict in Rwanda, and its management has recently been taken over by Rabobank.

Looking beyond existing institutions

The variety of institutions in a financial system is often a function of the overall size of the system, but also the overall degree of competitiveness and contestability of the system. Even small financial systems such as the system in Uganda can support a variety of financial institutions. Often, the push to expand the frontier comes from unexpected directions. In Kenya, Equity Bank transformed itself from an underperforming building society into an innovative bank and is now the largest bank in the country in terms of clientele. It did this by offering new delivery channels, such as mobile branches, by targeting a new clientele, and by focusing on the quality of service delivery. More recently, it launched M-Kesho, which is an advanced mobile financial product offered by M-Pesa (Safaricom, a leading mobile operator) and Equity Bank. In Rwanda, one bank is offering payment services to SACCOs through mobile branches on trucks.

Regional integration has become an important driver of new providers and products around the continent. As documented in chapter 2, the share of regional banks has increased significantly in recent years. One example is the expansion of Kenyan banks into Uganda following the lifting of a moratorium on new bank licenses in Uganda and in expectation of the establishment of a free trade area in East Africa.

Increasingly, new delivery channels beyond brick-and-mortar branches are being tested. The transaction accounts mentioned elsewhere above are often linked to a preference for the use of less costly ATMs rather than branches. Mobile branches located on trucks that deliver financial services to remote areas have become a popular delivery channel. Another promising example includes agency agreements, a model favored in several Latin American countries. Through these agreements, banks offer financial services through third-party agents, such as stores or post offices. Agency agreements offset several supply- and demand-side constraints simultaneously. First, they address the scale diseconomies involved in the provision of financial services to small communities of customers with a need for small-scale transactions because they allow financial services to be bundled with other products and services and reduce the fixed costs of a full-fledged branch. Second, they

reduce cultural and social barriers to the access to branches by large population segments. Kenya has recently put in place the necessary regulatory framework. Most countries in Africa, however, do not yet allow such arrangements.

New products have been tested to facilitate the inclusion of the unbanked population in the banked population. On the deposit side, simple transaction accounts have been offered. In South Africa, following moral suasion, if not outright pressure by the government, the Mzansi basic account initiative was launched by banks in 2004 to provide affordable banking services to the unbanked, but bankable population. Although the pricing structure differs from bank to bank, the Mzansi basket includes a bundle of basic services on a monthly basis at no monthly fee and with no switch fees, such as free electronic deposits, two ATM withdrawals, two cash deposits, one balance enquiry, one debit order, one rejected debit order, and one money transfer. By the end of 2007, there was a substantial shift in the geographical distribution of the footprint of the Mzansi account: major geographical regions had experienced decreases, while significant gains were being achieved in more remote provinces. Almost 52 percent of all the new accounts were previously unbanked customers. It thus appears that the Mzansi account is gaining acceptance especially among black women between the ages of 25 and 54. However, the results have not all been positive. A staggering 44 percent of all accounts remained inactive. The jury is therefore still out on the sustainability of the account as originally designed. Although highly praised for bringing the unbanked into the financial sector, its ability to keep them is less clear, perhaps because of brand consciousness or cost-related issues. Likewise, in 2008, Banque Centrale Populaire put in place a similar low-income banking program in Morocco that was called Al Hissab Chaabi (popular account). For DH 9 (approximately US\$1) per month, clients are offered a bank account, a debit and payment card, a mobile service, a monthly bank statement, and free counter operations. As of April 2010, Al Hissab Chaabi had helped 193,000 formerly unbanked individuals gain access to banking services.

On the lending side, salary loans have become a popular form of consumer lending. This model builds on a formal agreement between a company and a lender to deduct repayments for a loan directly from the salary of the borrower. It seems a good technology to avoid the key problem of contractual deficiencies and reduce the transaction costs for lenders. There is a critical downside, however: the over-indebtedness to which such agreements can lead. We return to the topic in chapter 5 under the heading of consumer protection.

Islamic finance

Islamic finance is a relatively new addition to the set of financial providers and products in most African countries, even though the first African Islamic Bank was created in the 1960s in Egypt. There are five principles that differentiate Islamic finance from conventional finance. Three of these are negative principles: the prohibition on *riba* (usury, which is generally defined as interest or excessive interest), the prohibition on *gharar* (risk or uncertainty, which is generally defined as specu-

lation), and the prohibition on financing for illicit sectors in Sharia (such as weapons, drugs, alcohol, and pork). The other two principles are positive: the profit- and loss-sharing principle and the principle that all transactions have to be backed by a real economic transaction that involves a tangible asset. Despite the implication of the term, Islamic finance is not restricted to Muslim customers. Islamic financial products can be offered by Islamic banks and conventional banks through specialized windows.⁸ It has been popular in the Middle East and some Asian countries for many years and has expanded to Africa in recent years.

Currently, 20 of the 53 African countries have Islamic institutions, including a total of 42 Islamic banks, plus numerous conventional institutions offering Sharia-compliant products through Islamic windows. There are 32 insurance companies offering Sharia-compliant insurance (*takaful*). In contrast, only three countries (Egypt, The Gambia, and Sudan) have issued Sharia-compliant government bonds known as *Sukuk* (legal instrument, deed, check, which is generally defined as financial certificate). Islamic finance is mainly found in countries with a significant Muslim population, such as The Gambia, Kenya, and Sudan (which has a completely Islamic financial system in the north), and North Africa generally. Some of the related institutions have been supported by the Islamic Development Bank, based in Saudi Arabia, through resources and technical assistance. Providing resources can be important not necessarily because of a lack of funds, but because of the constraint that both sides of a balance sheet at an Islamic bank (or Islamic window) have to be Sharia-compliant.

Despite the presence of a large Muslim population, the development of Islamic finance in North African countries has not been as rapid as one might have expected. There are several factors behind this outcome. First, for the most part, North African countries, along with a large part of Muslim Asia, follow a less conservative interpretation of Sharia relative to Gulf countries. In Egypt, for example, Al Azhar University has stated that *riba* should be defined as excessive interest and not interest per se. Second, for a long time, banking customers in North Africa have preferred conventional banks for their transparency on interest rates and the cost of transactions. The openness of North African countries toward the rest of the world meant that banks preferred to align with the practices of Western banks. Furthermore, given their structure, the average cost of a similar banking service has generally been higher for Sharia-compliant instruments than for conventional instruments. While this additional markup has been easily accepted among the wealthy Gulf population, it has been more difficult to accept among less well off North African clients. A final factor behind the slow emergence of Islamic finance may be found in the political will to avoid religious tensions or risk the perception that conventional banks are unlawful because an Islamic bank has been authorized.

The emergence of Islamic finance will certainly pose regulatory challenges (Sole 2007). Regulators have to become familiar with and stay current on the Sharia compliance of the Islamic financial products offered in their jurisdictions and on the accounting and auditing standards of Islamic institutions. The equity-like na-

ture of some Islamic finance instruments increases the risk-taking incentives for Islamic banks, which might require more intensive monitoring by supervisors. Islamic finance also poses problems of financial literacy in terms of transparency. In Islamic finance, the interest rate structures of conventional banking are often replaced by fee structures. While, at first glance, this may be easier for clients to understand, it raises the challenge of disclosure.

An important issue that is beyond the scope of this chapter and this book is the effective difference between Islamic banks and conventional banks. Recent analysis by Beck, Demirgüç-Kunt, and Merrouche (2010) finds few significant differences in business models across Islamic and conventional banks. This is based, though, on rather crude indicators derived from financial statements. Consistent with this finding is the observation that Islamic finance in northern Sudan is rigorous in complying with the no-interest rule, while Islamic finance in Malaysia, a sophisticated financial system, resembles conventional banking.

In the long term, a large-scale expansion of Islamic finance would involve the creation of parallel structures for bond markets, discount windows, and so on. Given the current resource and skill constraints in many African countries, it seems unlikely that this can occur outside the largest markets, such as Kenya, Nigeria, or South Africa, and it is questionable that this should be a priority among policy makers and donors.

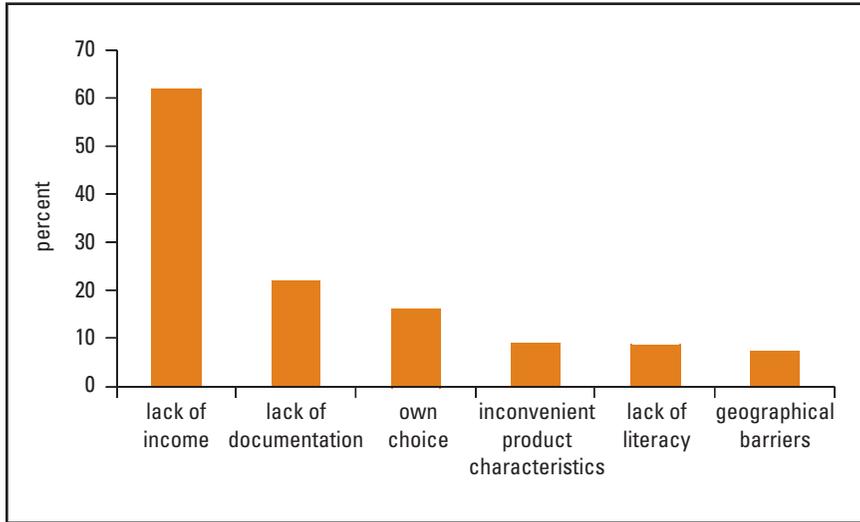
The ultimate question—the extent to which the provision of Sharia-compliant products can expand the banked population—is still open. On the one hand, such products might overcome the reluctance of religious households and entrepreneurs to use formal financial services. This population segment, however, is probably small in most African countries. On the other hand, the main barriers laid out above—cost and risk—are also present in Islamic finance, so that Islamic banking is unlikely to help push the frontier outward. Islamic finance seems to offer the chance to attract additional resources from the oil-exporting countries of the Middle East. However, most African countries face an intermediation constraint, but not a resource constraint.

The jury is still out, but the experience of the past few years suggests that the share of Islamic finance in overall intermediation will continue to increase across the continent; however, it will help deepen and broaden the financial system only at the margin and will not be a game changer.

Demand-Side Constraints

We have discussed supply constraints extensively, but there are also important demand-side constraints, that is, characteristics that can prevent households and individuals from accessing formal financial services.

One way to explore demand-side constraints is to consider the information provided by household surveys. FinScope and FinAccess survey users about their experiences with banks and nonusers about the reasons why they do not use financial

Figure 3.8 Asking Potential Users in Kenya about the Barriers to Access

Source: FinAccess (2009).

services (FinAccess 2009). These questions are typically open ended; so, the surveyed have to state the reasons without being offered formulated responses. Figure 3.8 reports the reasons reported by interviewees in Kenya to explain why they do not use formal banking services. At the top of the list is the lack of stable, regular income. Inadequate products (for example, products that are too costly) and the lack of the necessary documentation are often cited as important, while the lack of demand is rarely the most important reason. Reasons related to literacy and the lack of knowledge about products account for another important factor (see elsewhere below). Overall, this points to three of the main barriers we discuss in this chapter: the large segment of the population that is currently unbankable, the supply constraints related to the significant documentation requirements and product and geographical barriers, and the demand-side constraints.

The lack of formal income sources is an important constraint to participation in the formal economy, including conventional banking. Conversely, the lack of formality and the small size of transactions pose important barriers to banks in reaching out to such customers. Semiformal and informal providers seem much more appropriate. Nonetheless, mobile payment providers are much more likely to be able to reach out to this segment because they have much lower fixed costs and do not rely on a threshold transaction volume for each customer, but, rather, the overall volume; they thus follow a high-volume strategy. The barriers related to the lack of the necessary documentation are harder to overcome, especially in light of the recent trend to formally register subscriber identification module (SIM) cards. Overall, however, the profile of the unbanked population points to transaction ser-

Table 3.3 The Awareness of Microfinance across African Countries, 2009
percent of the respondents to the question "Are you aware of any institution/company in your community helping people with microfinancing, that is, helping people like you to obtain small loans, with interest, for a business?"

Country	Yes	No, not available in my community	No, never heard of it
Malawi	65	29	7
Uganda	63	30	7
Kenya	57	29	14
Senegal	56	29	13
Tanzania	47	40	13
Rwanda	46	40	13
Chad	38	51	10
South Africa	38	34	28
Ghana	37	43	18
Mali	36	51	13
Cameroon	36	36	28
Niger	33	59	8
Nigeria	31	43	17
Zambia	30	53	14
Burundi	25	59	15
Côte d'Ivoire	18	65	18
Congo, Dem. Rep.	16	61	22
Zimbabwe	15	46	39

Source: Gallup survey data.

Note: The surveys were conducted in 18 Sub-Saharan African countries in 2009. The data are weighted using adult population estimates for 2008 developed by the World Bank.

vices as a more promising entry point for financial institutions and to technology as a promising delivery channel.

A simple lack of awareness about the availability of financial services may also be an important barrier. A recent Gallup poll across 18 African countries showed that, on average, only 36 percent of the surveyed are aware of the existence of MFIs in their communities: 18 percent had never heard of MFIs, and the remainder claimed to have heard of them, but said that MFIs were not available in their communities (table 3.3). Obviously, this also points to the lack of availability. Perhaps more worrisome is the fact that the awareness increases with income and is greater among men than among women, though the latter are often targeted by MFIs. This suggests that MFIs are not reaching their target clientele or may not be able to reach as far down-market as they would like.

There is a general trust issue. Overcoming the mistrust of financial institutions might be easier in the case of transaction services, where the intertemporal nature of financial services is reduced to a few minutes, especially in m-banking, than in

the case of savings or credit services, where the result can only be seen after months or even years.

Financial literacy has been an increasingly important topic among policy makers and donors in recent years. It is important to distinguish between financial literacy (or knowledge), that is, awareness and knowledge about the existence and functioning of specific services and products, and financial capability, that is, good financial decision making. Financial capability includes managing resources well, knowing how to evaluate and compare different financial products and services, and demanding one's rights if necessary. Box 3.2, on the next page, describes some of the related efforts across the region.

Do financial literacy programs help? It is hard to establish causality, but randomized evaluations have provided some evidence. A recent financial literacy training program in Indonesia targeted selected unbanked households. It sent half of them invitations to a free financial literacy seminar two to three hours in length (Cole, Sampson, and Zia 2010). While the program had no effect on the general population, there seems to have been a significant impact on the likelihood of unschooled and financially illiterate households to open bank accounts as a result of the program. Additionally, a financial literacy program delivered over several weekly sessions seems to be more successful than a single session of a few hours. Monetary incentives offered for opening accounts seemed more successful than education programs, at least in the short run. In Uganda, women microentrepreneurs were offered business development and literacy training (McKenzie and Weber 2009). The training led many entrepreneurs to keep separate business and personal accounts, specify the salaries they would draw each month, and draft budgets they would monitor. However, this effect was concentrated among women with some university training. The lesson from these two experiments seems to be that targeted literacy programs are more promising than general programs and that programs have to be adjusted according to feedback from participants. It is important to stress that these are preliminary findings. Significantly more research and analysis are needed to explore the sorts of programs and the targeted population groups that may be appropriate. It is certainly easier to improve the basic awareness of financial concepts and financial attitudes. Measuring the long-term impact of financial literacy programs on behavior requires longer-term analysis.

There is a more general demand-side issue: Which financial service does the currently unbanked population segment in Africa need most? As we discuss above, the poor use a large portfolio of informal financial services, including credit (moneylenders), savings (susu collections or rotating savings and credit associations), and payment services.

Technology: The New Silver Bullet?

Africa has been at the forefront of mobile financial services.⁹ In 2002, Celpay, a specialized provider linked to mobile network provider Celtel, started a business-

Box 3.2 Financial Capability Programs

There are many types of financial literacy programs, ranging from widely distributed to targeted efforts and efforts using different media and different channels. The following are a few examples from across Africa.

Drama, music, and dance. Drama and role plays, accompanied, sometimes, by music and dance, can help bring to life issues of personal finance. In Uganda, the Association of Microfinance Institutions of Uganda has used music, dance, and drama to reinforce other means of communications in finance. This channel was chosen because it is the most highly appreciated means of communication within communities and because it reflects local culture: knowledge is traditionally passed from one generation to another through storytelling.

Exhibitions, road shows, and gathering points. In South Africa, where many people use local transportation to go to work, brief education messages on personal finance are transmitted via radio, television, and compact discs at some of the main taxi (minibus) stands and train stations and in vehicles. These infomercials typically contain music, as well as education messages on personal finance. In addition, roving trailers and stages, with live sessions by trained facilitators, are used at taxi stands and train stations. In South Africa, the national credit regulator runs the Borrow Wisely Campaign after Christmas. The campaign includes broadcasts from shopping malls at which prizes are given to shoppers who answer personal finance questions correctly.

Mass media. In Africa, mass media has long been used to communicate health-related messages and educational content. Now, these tools are being used for financial capability outreach. In Kenya, for example, a popular soap opera, *Makutano Junction*, has received funding to include financial literacy messages in the story lines. They are using content developed by the United States–based NGO, Microfinance Opportunities. The content was created for classroom-type instruction, but is now being modified for mass media. In Uganda, rural radio, including call-in shows during which local experts respond to the questions of callers, has been found to be a cost-effective means of reaching large numbers of rural people, particularly because, taken together, these shows are presented in a range of local languages. Listeners can identify with callers who have similar profiles and may be facing similar issues. In Tunisia, radio commercials have been used to educate people on the benefits of holding and using payment cards instead of cash.

Source: Miller (2011).

to-business payment service in Zambia, and, in 2005, First National Bank started a similar service in South Africa, though limited to existing customers. In 2007, Safaricom started M-Pesa in Kenya, which had more than 10 million registered customers, or 40 percent of Kenya's population, by June 2010 and a business volume of US\$400 million per month, or 15 percent of Kenya's GDP. Most countries in Africa have a mobile payment service provider by now, although the penetration has not reached the same level in other countries as in Kenya. These service provid-

ers are building on the wide success of mobile network providers across the continent that are leapfrogging more conventional technologies because of the poor state of landline telephony in Africa. According to Aker and Mbiti (2010), the total number of mobile phone subscribers in Africa rose from 16 million in 2000 to 488 million in 2010, covering effectively two-thirds of the population. These payment networks are also referred to as second-generation models of mobile financial services.¹⁰ Rather than building on the existing payment infrastructure, these providers had to build their own infrastructure, including a large agent network where customers could exchange electronic money for cash. The second-generation model of mobile financial services has also introduced new players into the financial system, at least in some countries.

Mobile phone banking offers two critical advantages over other delivery channels. First, it relies to a greater extent on variable rather than fixed costs, which implies that even customers who undertake small and few transactions are viable or bankable relative to banking through conventional channels. Second, trust can be built much more easily by reducing the risk from the customer's and the provider's viewpoint. By overcoming these two major barriers, mobile phone banking can help push out the access possibilities frontier to cover a large share of the adult population. By overcoming these barriers, mobile phone banking can change the economics of retail banking (Mas and Radcliffe 2010).

There has been a lot of speculation about the factors behind the success of M-Pesa in Kenya and whether it can be replicated elsewhere. Conditions were conducive for Safaricom to reach the necessary scale as rapidly as it did; these conditions may not be available for replication in other countries. First, Safaricom had a high market share in mobile telephony (75 percent), which gave it the necessary network advantage in allowing its customers to reach friends and family with payment transfers. This strong market position also allowed it to attract customers and cash-in/cash-out merchants rapidly, as the usefulness of the system was obvious. In Tanzania, for example, where Vodacom has a 40 percent market share, M-Pesa managed to attract only 280,000 customers in the first 14 months, compared with 2.7 million in Kenya during a corresponding time period (Napier 2011). Second, the demographic structure of Kenya has helped because of the migration flows toward Nairobi and the necessity to transfer money on a regular basis. Third, Safaricom managed to overcome the challenges of scale and network effects through a massive start-up marketing and investment effort, thus avoiding the subscale trap. A final positive factor was the open regulatory environment that allowed a non-bank company to offer financial services.

Beyond the question of how easy it is to replicate the success of M-Pesa elsewhere on the continent, there seem to be two important lessons of this success for the ongoing discussion on how to expand the outreach of formal financial systems. First, the success of M-Pesa and the spread of similar products and services around the continent might indicate a shift away from a credit-led inclusion approach, the hallmark of the original microfinance movement—which saw credit as the only

Table 3.4 The Regulatory Framework for Branchless Banking in Selected Countries

Indicator	Angola	Malawi	Mozambique	South Africa	Zambia
<i>Domestic branchless banking regulatory framework</i>					
Nonbank-based branchless banking model permissible?	Restrictive	Unclear	Permissive	Transition ^a	Permissive
Outsourcing to retail agents permissible?	Restrictive	Transition ^a	Permissive	Permissive	Permissive
Regulator and policy maker perspectives on outsourcing	Restrictive	Transition ^a	Permissive	Permissive	Permissive
Electronic money services	Transition ^a	Unclear	Permissive	Transition ^a	Permissive
Effect of AML and CFT ^b	Restrictive	Transition ^a	Permissive	Transition ^a	Permissive
<i>Regulatory framework for crossborder transactions</i>					
Who can offer them?	Restrictive	Restrictive	Restrictive	Transition ^a	Permissive
Transaction limits? ^c	Restrictive	Restrictive	Permissive	Transition ^a	Permissive
Identification requirements	Restrictive	Restrictive	Permissive	Restrictive	Permissive

Source: Data of the Consultative Group to Assist the Poor and the World Bank.

a. Transition = in between or in transition.

b. AML = anti-money laundering. CFT = combating the financing of terrorism. Information on the effects of AML and CFT for Angola is incomplete.

c. The transaction limits in South Africa are restrictive for Postbank, but not so restrictive for banks.

barrier between the poor and entrepreneurship—toward a payment-led inclusion approach (Mas and Radcliffe 2010). Such an approach can have several advantages over the credit-led approach. It addresses people's most immediate needs, that is, the need for safe, rapid payments. There is also a potential for scaling that is not necessarily available for credit because there is no need for large resources within such an approach. Finally, focusing on transaction services rather than credit services also seems consistent with the overall level of financial development, which is more highly focused on transactions. It therefore fits well with the Finance for Market approach. This transaction-led rather than credit- or savings-led approach toward inclusion does not downplay the importance of other financial services; rather, the issue is: Which service should one start with and which delivery channel should one use?

The second important lesson revolves around the fact that innovation can come from an unexpected quarter, a conclusion we discuss in the previous section. Given the limited competition in banking in Africa because of the small size of banking systems in most African countries and given the limited development of nonbank financial institutions in Africa, it is important to find alternative financial service providers. This does not mean that there should be an open-door regulatory environment to permit all and sundry to offer deposit-taking services. Rather, it means that there should be an open regulatory environment with regard to new providers

and new products that might increase outreach and competition within the financial system.

The state of development of the information and communication technology infrastructure and the legal framework in countries has a lot to do with the regulatory attitude and approach toward mobile technologies, especially among nonbank sources, as a recent study of southern African countries shows (table 3.4). Countries not only have different regulatory regimes in relation to the potential for m-banking, they are also at different stages in the development of m-banking facilities; thus, m-banking is widespread only in South Africa, though its use is also expanding for commercial users in Zambia.

The challenge will be to use the network created by mobile financial services to make the transition from payment services to other services. The recent introduction of M-Kesho in Kenya is a first step in this direction. M-Kesho is a savings account offered by Equity Bank that provides only electronic transaction functionality, that is, money can be transferred in and out either via the customer's M-Pesa account or an account with Equity Bank. Eventually, Equity Bank hopes to offer both credit and insurance services via this delivery channel. In Ghana, MTN, a mobile network operator, is planning to offer life insurance products for the low-income market.

More recently, there has also been a push to integrate mobile payment systems across borders. Celtel's network project in East Africa is the world's first borderless (or unified) phone network. It offers subscribers in Kenya, Tanzania, and Uganda free roaming facilities across borders with airtime charged in local currencies.

While the dominance of Safaricom in the cell phone market has facilitated the success of M-Pesa, concerns have arisen about this dominant market position. Exclusivity agreements with agents can become effective entry barriers for new suppliers. Eventually, the shift to an interconnectivity model might be required, whereby (as in railway services) the infrastructure and the transfer services are separated. Another challenge is the decision whether to allow stand-alone mobile payment service providers or bank-based solutions. Kenya has selected the stand-alone solution, while many other countries have preferred a bank-based solution or a solution that centers on a telecommunications company that acts in cooperation with a bank (box 3.3). One size certainly does not fit all. The Kenyan solution was possible because of the market dominance of Safaricom and the desire to induce more competition from outside the banking system. Banking systems that face significant competition from within the sector may prefer the bank-based solution. In middle-income countries that are already reasonably well banked and have the related infrastructure, the bank-based model may also be more appropriate.

As an alternative to an activist regulatory approach to sharing infrastructure, such as agents, a shift to third-generation mobile financial services can help overcome problems of scale and competition. The third-generation model implies the existence of access to Internet via mobile phones. Two technical aspects would

Box 3.3 Examples of Transformative Technology-Based Products**Bank-based models**

Wizzit is a joint venture between an independent provider and the South African Bank of Athens. Its services are based on the use of mobile phones to access bank accounts and conduct transactions, in addition to a Maestro debit card that is issued to all customers upon registration. Wizzit has partnered with the South African bank Absa and the South African Post Office, which act as banking agents and allow Wizzit customers to deposit funds at any Absa or Post Office branch.

MTN Banking is a joint venture between mobile network operator MTN and Standard Bank that allows customers to obtain immediate access to their bank accounts at anytime they wish using cell phones, MobileMoney MasterCard, and the Internet. They can withdraw cash from any ATM in South Africa and also make balance and statement inquiries using cell phones. MobileMoney account holders can make person-to-person payments.

Hello Money is now offered in Botswana by Barclays Bank, in partnership with Orange and Mascom. It supports a full range of retail and business banking services that are already offered to its customers and allows customers to make transactions such as account inquiries, fund transfers, bill payments, mobile recharges, and checkbook and statement requests.

Nonbank-based models

Zap was launched in Kenya, Tanzania, and Uganda in February 2009 by Zain Mobile, in partnership with leading international banks, enabling Zain and bank customers to use mobile phones to withdraw cash or pay for goods and services, school fees, and utility bills, including electricity and water; receive money from or send money to friends and family; send money from and receive money to their bank accounts; top up their or someone else's airtime; and manage bank accounts. More than 10 million people are using the service, and Zain expanded Zap to Niger and Sierra Leone and, in the context of a full commercial pilot, also expanded to Malawi.

Mikemusa mobile is a pilot mobile, wallet-based money transfer service that aims to cater to Zimbabweans in diaspora. Customers can access the service online and open m-cash accounts. They can load funds onto their m-cash accounts through direct bank-to-bank online payments (suitable for customers with online banking facilities) or direct bank cash deposits; this is most suitable for customers without bank accounts or online banking facilities.

Mobicash Payment Solutions (Pty) Ltd, trading as MobiPay, is Namibia's first mobile payment solution. It was licensed and authorized by the Bank of Namibia in August 2010. Customers must first register free of charge before depositing money with Mobicash Payment Solutions. The actual cash is either deposited with the company's bank account or with the company's agents across the country. Customers would then use their cell phones to access the money for transactions, which may include the purchase of airtime, electricity payments, the transfer of money to other persons, and payment for goods at shops.

Note: In nonbank-based models, unlike in bank-based models, it is not mandatory to have a bank account.

make this a promising route. First, this can lead to a reduction in costs. Second, the Internet can serve as a shared platform for different providers of payment services, such as PayPal. The initial applications have enjoyed high take-up rates, for example, Mxit in South Africa. However, there are also risks involved with this next generation of mobile payment service, most prominently the risk of viruses. This might also have implications for supervision and even monetary policy.

In summary, electronic banking can change the economics of retail banking. It can help push out the possibilities frontier substantially because it reduces the fixed cost component of financial service provision. Pushing out toward the new frontier, however, requires that one also overcome other constraints, such as the lack of financial literacy and awareness, and might require a new regulatory approach. There are two major challenges. One involves shifting from transaction services to other financial services, that is, to use the initial mobile payment services as entry points rather than as end points in the effort to extend the outreach of the financial system. The other challenge is to minimize the problems associated with scalability, which might require a large market share and competition. Contestability—that is, openness to competition from new providers and new products—can go a long way in this direction.

Pushing Out the Frontier: The Role of Governments and Donors

The right mix of institutions, competition, and generally open systems can allow a financial system to push toward the frontier. However, for most African countries, this frontier is still narrow. How can the frontier—the share of the bankable population—be pushed out at the level of households and enterprises? This brings us back to a long-term agenda item: institution building.

Contractual institutions—laws, the courts, collateral registries, and so on—have long been at the top of the agendas of policy makers. The modernist approach focuses on the ability of borrowers to use fixed assets, such as land or machinery and vehicles, as collateral and on the existence of the infrastructure necessary to establish sound lending practices. The creation of a sound and effective contract enforcement mechanism is an important part of the long-term institution building agenda; we return to this in chapter 4. Are there more short- to medium-term solutions that can help push out the frontier and address the challenges of competition and the demand-side constraints?

Credit registries have been heralded as a major policy tool to push financial systems toward the frontier by providing more competition and allowing more entrepreneurs and households to become part of the bankable population. Djankov, McLiesh, and Shleifer (2007) assert that credit registries are better than the reform of the contractual framework as a tool for deepening financial systems, and Honohan and Beck (2007) highlight credit registries as a useful tool. What can we expect from the introduction of credit registries?

Credit registries that provide easy, reliable access to client credit history and both negative and positive information can dramatically reduce the time and costs necessary to obtain such information from individual sources and thereby reduce the total costs of financial intermediation. Through credit reporting, borrower quality becomes much more transparent, which benefits good borrowers and increases the cost of defaulting on obligations, thus providing a disciplining tool. It helps borrowers build up credit histories—reputation collateral—and thus eases the access to credit. Credit registries are especially important for SMEs because the credit-worthiness of SMEs is generally more difficult to evaluate, and SMEs typically are less visible and transparent relative to large enterprises. Many cross-country studies have found that countries with effective credit registries possess deeper and broader financial systems (see, for example, Jappelli and Pagano 2002). Does this also hold over time, that is, comparing individual countries before and after the introduction of credit registries? There is, indeed, evidence of a useful effect on the stability of banks and on the access to credit by enterprises, though little of this evidence is on African countries.¹¹ There is specific evidence for countries that have introduced credit registries and have seen improvements in the access of enterprises to credit (Brown, Jappelli, and Pagano 2009).

While credit registries have often been praised as an important policy tool, one has to be realistic about what can be achieved and about the related time frame. Negative information sharing will lead to the more effective screening of borrowers by lenders through access to information, which, in the first instance, may generate a reduction in access rather than an expansion. However, only through the inclusion of positive information can one achieve a buildup in the reputation capital of existing borrowers that might have an effect on competition, though this will only be felt over time rather than immediately. At the outset, this positive impact will affect the existing borrower population and cause an expansion of the frontier to the previously unbanked population only by fostering stronger competition among the participants in the credit registry, thus forcing some of the participants down-market. Here, the type of information on which the registry can draw is critical. In general, the broader the sources the registry can draw on (utility companies, trade registries, and so on), the larger the share of enterprises that will be captured and that can potentially benefit from such a registry by proving their good borrower status. In this context, the connection to information from MFIs seems crucial. While the borrowers targeted by such institutions are often different from those targeted by banks, growing microenterprises that formalize into small enterprises will, at some point, want to access bank credit as they become too large for MFIs. It is at this stage that a credit registry can help them. All these possible effects, however, should not be expected immediately, but over the medium term, that is, in three or more years.

There has been an important debate about the private versus the public model in credit registries. While the private model has the advantage of being able to draw on data from many different sources, it is typically a voluntary arrangement. More-

over, it can be exclusive to certain groups of financial institutions, thereby undermining competition within the banking system and fostering segmentation in the financial system. Meanwhile, the public model, which is usually hosted at the central bank, has the advantage of being compulsory. In many cases, however, it is limited to credit information from banks themselves and refers to loans above a certain threshold, while focusing on negative information only.

As in the case of many items on the policy agenda, the space for action by policy makers varies significantly across Africa. Larger countries, such as Egypt, Kenya, and Nigeria, can afford several competing credit registries, while small countries cannot. Even where there are competing credit registries, however, it is important that they truly compete with each other, rather than representing separate segments of a financial system, as in the case of Nigeria. This entrenches the segmentation of the banking system rather than fostering competition.

Egypt offers an interesting example. In Egypt, the central bank recognized its capacity constraints and encouraged the banking sector to set up its own credit registry, I-Score, which could then also draw on data from the central bank's credit registry. Expansion toward the MFI segment is now being considered. Similarly, in Morocco, through a private-public partnership, private banks are building a data platform that is ultimately controlled by the central bank, but which may be accessed by any private credit registry. Some of these experiences would certainly be useful for other countries farther south as long as they always take into account the capacity constraints of small markets.

There are also potential benefits associated with regional arrangements in credit registries. Sharing the fixed costs of setting up and running such a registry can thereby be spread across more users, which, if passed on to the end users of the registry, makes the registry more cost-effective. Furthermore, as the economies in subregions, such as East Africa, become better integrated and as more, even smaller enterprises expand across national borders, a broader supranational information base becomes important. However, in this case, a consistent legal foundation must be created as a basis for information sharing across borders and to ensure the compatibility of different models.

The lack of proper identification cards in some African countries is a challenge. Biometric identification can help solve this problem, though there are cost concerns. Given the absence of a national identification system, Uganda has introduced biometric identification in the context of the establishment of a new privately managed credit registry.

The Role of Government: Looking beyond Institution Building

While governments continue to play a major role in pushing financial institutions toward the frontier and pushing the frontier outward, the role of governments in access to finance has changed significantly in recent decades.

Government entities acting as financial service providers, especially in the retail trade and in credit services, have failed almost everywhere in the developed and developing world. In contrast, the role of government in the policy arena has increased and is no longer limited to macroeconomic stability and long-term institution building. In this context, it is important to discuss the role of DFIs. While they have failed in providing retail credit, they can have a key role in alleviating supply-side and demand-side constraints.

Another area of possible policy intervention is affirmative action to push financial systems toward the frontier through moral suasion or the legislative and regulatory process. The example of South Africa and its financial charter is insightful in this context, although the dictum “one size fits all” certainly does not apply here because similar policies may not be feasible in poorer and smaller countries in Africa, as Honohan and Beck (2007) point out. Furthermore, there is a fine line between moral suasion and political interference, as the recent example of Uganda has shown. In early 2006, frustrated by the insufficiency of earlier attempts to raise access to financial services, the Ugandan government announced that each district should be serviced by at least one financial institution. In those districts where no financial service provider was in operation, the government mandated the establishment of SACCOs to be supported through payment services and other services supplied by the poorly managed government-owned Postal Savings Bank. Similarly, in Nigeria, the government put in place the Small and Medium Enterprises Equity Investment Scheme, which obliges banks to set aside 10 percent of their profits for equity investment in SMEs. The experience was not successful. As of September 2005, only about 27.5 percent of the resources set aside by 82 banks had been utilized (Abereijo and Fayomi 2007).

Beyond institution building, governments have a critical role in ensuring competition and in designing regulation in a manner compatible with the goal of outreach. We discuss these in the following.

Encouraging competition

Competition is an important area for government action. However, this entails a sophisticated approach that has to balance (1) the need for innovation, (2) the need to avoid market dominance by new players who rapidly gain market share in new products, and (3) the need to reduce the risks of fragility. To illustrate, we return to the topic of mobile financial service providers.

Its monopolistic position in the cell phone market and its anticipation of monopolistic rents encouraged Safaricom to launch M-Pesa.¹² The possibility of entering the market without regulatory restriction certainly helped. However, the dominating market position represents a concern in terms of market development going forward, and mobile payment services might raise previously unknown risks. A dynamic approach is therefore called for, whereby regulatory authorities—in this case, banking and telecommunications regulators—have to follow market development closely and react flexibly.

As Porteous (2010) clarifies, the pricing and access conditions imposed by telecommunications companies in regard to third parties such as banks can affect the willingness of the latter to offer such services. Meanwhile, by charging high rates, banks can impede the access to payment systems by companies offering mobile payment services. The banks thereby similarly erect barriers to competition. These issues call for close coordination between bank and telecommunications regulators.

Allowing the entry of sound and reputable service providers into financial systems is critical for innovation and for the objective of broadening access to finance in Africa. Data on license applications and approvals across Africa's banking systems are worrisome given that more than a third have been rejected for numerous reasons in recent years. While this might simply be a symptom of a lack of reputable and experienced financial service operators in Africa, it does raise concerns about competitive barriers.

Another lever to increase competition is more transparency, which can be created by, for example, forcing financial institutions to publish their service fees in major newspapers. Currently, only 18 countries in Africa have such a requirement.¹³ It is important to stress that publishing by itself is not sufficient to ensure transparency; the publication of fees on comparable products and the distribution of the information properly are paramount.

In certain instances, the authorities might have to force financial service providers to cooperate rather than compete with each other, especially in financial sector infrastructure, such as payment systems. One striking feature of African financial systems is the lack of interconnection among ATM and point-of-sale networks across banks. More than half the countries on which data are available have more than one payment card switch, which is highly cost-inefficient given the small scale of most African financial systems. Similarly, relative to other countries, African countries show, on average, lower interoperability scores for ATM systems and point-of-sale systems (World Bank 2008b). Even where there is interoperability, participants face high fees. Central banks, in carrying out their payment system oversight responsibilities, have to ensure that the balance between competition and cooperation is a healthy one. As a public good, key payment system infrastructure such as this should meet public policy concerns by, for example, allowing fair and competitive access to retail payment infrastructure. This would also entail ensuring that different types of institutions, be they banks or nonbank entities, provide payment services and promote fair access, thereby establishing a level playing field in the market. In most African countries, access to payment services is limited to banks, which gives banks a competitive advantage over other financial service providers.

Governments have to act with caution, however. Thus, in 2008, for example, Bank of Ghana introduced a national retail switch (eZwich) to which all banks had to connect. While banks obliged, few cards were issued, mainly because of the high cost of the technology and because the switch is not interoperable with other bank-level networks. Box 3.4 presents another example, in Malawi. The lesson from these

Box 3.4 Malswitch

Malawi has made great progress in the modernization of its payment system, but its decision to invest in a proprietary smart card payment system technology has been costly and has inhibited its ability to achieve an interoperable platform with a broad base of participation by issuers and acquirers. Keen to establish a shared retail payment system platform, the Reserve Bank of Malawi (RBM) invested, in 1999, in a nationwide payment service provider called Malswitch. (The provider is owned by RBM and the government. The respective ownership shares are 99 and 1 percent.) Malswitch operates the real time gross settlement system on behalf of RBM, while the Electronic Check Clearing House participates on behalf of other banks. The smart card system has off-line capabilities, as well as biometric identification facilities. It was thus intended that the system should reach a wider customer base than traditional payment instruments, including in unbanked rural areas.

RBM hoped that the commercial banks would subsequently subscribe to the Malswitch smart card technology and compete on products rather than infrastructure. After 11 years, this aspiration has not materialized. Banks found the selected technology expensive and invested in alternate open platforms, which are governed by open standards that allow interconnection and interoperability with existing payment system platforms. Today, the Malswitch smart card is still not interoperable and is inconsistent with best practice and user needs. Furthermore, the advances in technology since Malswitch was introduced and the proprietary nature of the technology have made Malswitch additionally unattractive to the private banking sector.

While RBM was right in seeking to champion a public good for the banking sector so as to attract the significant transaction volume required to lower average transaction processing costs, good practice today requires private sector ownership and management of such shared retail payment system infrastructure. In this way, banks could collectively make all key decisions affecting the infrastructure, thereby demonstrating a good balance between cooperation and competition.

experiences is that the authorities have a critical role in ensuring cooperation in infrastructure, but the private sector has to be closely involved in technical design. Another important dimension is the increasing trend toward SIM registration, that is, implementing the documentation requirements for acquiring a SIM card. This increases the costs for customers and mobile telephony companies, with potentially negative repercussions on efforts to broaden access to cell phones and mobile payment services. However, it also seems to offer an opportunity if the documentation requirements for opening bank accounts and registering SIM cards can be harmonized and linked, thus lowering the documentation requirements for bank accounts, at least at the regulatory level.

Fostering innovation

Providing the necessary environment for innovation is essential, but nurturing it is much more difficult. Innovation funds and innovation challenges, possibly fi-

nanced and sponsored by donors, might help. M-Pesa was partly financed by a challenge fund sponsored by the U.K. Department for International Development. The recent G20 SME Finance Challenge included several winners who focused on Africa.

Another important step in pushing the financial sector toward the frontier is the reduction of information hurdles. Throughout this chapter, we refer to and use household-level data produced through the FinScope and FinAccess databases. These databases are useful not only for analysts and researchers, but also for financial institutions that are considering expanding their outreach. Identifying the geographical and sectoral gaps in financial service provision can be helpful for financial institutions that want to expand. Identifying gaps in the outreach of financial institutions can also have a demonstration and incentive effect. In South Africa, the private banking sector has supported such studies, while governments and donors have financed such studies in other countries given the limited buy-in so far by private financial institutions, though these institutions should have a strong incentive as well.

Avoiding a regulatory bias against outreach

Regulations are important in safeguarding finance and ultimately protecting the beneficiaries and users of financial services. Burdensome regulations, however, restrict the outreach of financial institutions (box 3.5). Regulatory constraints prevent

Box 3.5 Financial Innovation: The Opportunities and Risks in Expanding Outreach

New providers and new products represent opportunities to push the financial system toward the frontier and push out the frontier. The discussion in this chapter shows the powerful effect that competition and the ensuing innovation can produce. Partisans of the modernist approach have the tendency to focus on new laws and regulations to enable new providers and products. Partisans of the activist approach would like the government to take a more active role in introducing new products. Both sides seem too eager in their respective drives. First, M-Pesa was introduced in Kenya well before any regulations on m-banking. Islamic banking works in South Africa without the accompanying regulations because regulators apply the same rules in spirit to Islamic banks and to conventional banks. Second, innovations are mostly introduced by private players; perhaps these are not always commercially oriented, but they have a clear vision of long-term sustainability. An open policy approach is therefore called for that adopts an initial caveat emptor attitude toward financial innovation.

This should not imply that regulatory authorities stand by silently as the financial system is changed through innovation. On the contrary, the success of M-Pesa and the possible dominance of the mobile payment market by Safaricom show the need for an active regulatory approach to prevent the potential entrenchment of a monopolist, while excesses in payroll lending show the need for an active approach to consumer protection to avoid overindebtedness on the household side and financial fragility on the supplier side.

microfinance from exerting the maximum effect. In Morocco, for example, MFIs are treated as nonprofit organizations, a rule that prevents them from diversifying services and funding sources beyond the original donors. Similarly, maximum lending thresholds limit the business of MFIs. As they are implemented in many African countries, interest rate ceilings have an even worse effect because they price micro-credit providers out of the market (see the discussion in chapter 5).

At a more individual level, regulations on anti-money laundering and on combating the financing of terrorism (AML-CFT) are important, but they can also restrict access to financial services, thereby constraining outreach. The need to make AML-CFT regulations as access-friendly as possible is recognized by specialists (Hernández-Coss et al. 2005). To accomplish this, one must ensure that the requirements are based on risks and that they therefore do not impose excessive rules on documentation and verification on low-income customers who access services that have limited scope for abuse. Regulatory authorities should engage with financial service providers to design the services needed by the poor, such as basic bank accounts, in such a way that they can be safely offered without triggering concerns about AML-CFT. Thus, for example, South Africa lowered the documentation barriers on basic financial products subject to monetary limits and certain other conditions, including that clients be natural persons, South African nationals, or residents and that the transactions be domestic. Such documentation requirements are also relevant in agency agreements so that they guarantee the right of nonbank staff to open accounts and verify identities, as well as receive and make cash payments even under the AML-CFT regime. Otherwise, the outreach of this important delivery channel will not be effective.

Even more important than focusing on the supply-side constraints of regulation is to formulate regulations so as to address demand-side constraints. South Africa has taken an active approach to curbing excesses in consumer lending through the National Credit Act in 2007 by requiring lenders to undertake affordability tests before granting credit. By curbing consumer credit, this law (which also covered the establishment of a national credit regulator) may well have prevented the buildup of a consumer credit bubble, as we have seen in several industrialized countries. We return to this topic in chapter 5.

Facilitating regional solutions

Beyond developing national markets, African policy makers also need to look at regional solutions. Developments on the continent are such that there are tremendous incentives for expanding access to finance through the rapid, but safe launch of domestic and crossborder branchless banking, accompanied by appropriate protections for customers and the financial system. The immediate motivations include current migration patterns, regional remittance flows, and trade patterns (Stone et al. 2009).

In Africa, there is a complex mix of skilled and unskilled migrants. While most migrants in the region are men, there is an increasing pattern of the feminization of migration in the region. Migrants typically use cash as they cross borders and have

to go through numerous hurdles to obtain the relevant documentation to access banking services in their new places of residence. Internal migration is also widespread and is linked to rapid urbanization. Internal migrations have greatly contributed to the enlargement of the informal sector within countries. Rural-urban migration has also resulted in many geographically split households, with important implications for the demand for m-banking.

The infrastructure for transferring remittances among African countries remains rudimentary. The means of sending remittances relied on by crossborder and internal migrants include banks and other formal financial intermediaries, post offices, money transfer operators (for example, Western Union and Moneygram), and the hand transport of cash (personally or through an agent such as a friend, a relative, or a taxi driver). The informal channels are inextricably linked with the informal nature of migration in the region, with important consequences for the relative ease and security of money transfers. The relatively high costs of sending remittances through the formal financial sector are also an important factor in determining patterns of demand (Maimbo et al. 2010; Maimbo and Ratha 2005).

Informal crossborder trade is the main potential source of demand for crossborder m-banking services. Individuals cross borders to sell small amounts of goods—informal street traders, for example. While these informal traders are not strictly migrants, some studies describe them as among the most entrepreneurial and energetic of contemporary migrants. One study noted that informal traders who cross borders are mostly women (70 percent). Thus, informal crossborder trade may be closely linked to the feminization of migration.

Despite the importance of crossborder migration, remittances, and trade patterns, the financial architecture for facilitating these processes remains hindered by regulatory constraints. Financial sector development policies and products have focused on facilitating large-value payments within national borders and pay little attention to innovations in small-value payment systems whether domestic or crossborder.

From a regional regulatory perspective, in addition to the recommendations above regarding the development of national markets, it is important that policy makers recognize and address the fact that countries still have (1) different regulatory regimes in relation to the potential for m-banking in general and for crossborder m-banking in particular and (2) are at different stages in the development of m-banking facilities. Countries need to accelerate the process of harmonizing the licensing and supervisory framework for mobile money to facilitate private sector-led technological solutions, many of which will benefit national markets.

From Agricultural Credit to Rural Finance

Throughout the developing world, rural finance, especially agricultural credit, has always been the troubled child in the financial family. Considered costly and risky, it is often avoided by commercial lenders, who leave the field to cooperatives, donor-supported MFIs, and government-owned DFIs.

The conditions in Africa exacerbate the difficulties that agricultural and rural finance faces. The four characteristics of African economies described in chapter 1 that make financial service provision more challenging in Africa apply even more so to the rural sector in Africa.

- *Scale*: Dispersed populations and deteriorated road infrastructure make financial service provision through normal delivery channels prohibitively expensive. Deficient energy supply and, thus, the need for generators, as well as the lack of a reliable landline phone system, increase the costs of providing banking services through traditional delivery channels. In some countries, the difficult security situation drives costs up additionally.
- *Informality*: Informality is typically more prominent in rural areas, where there are few formal residential addresses or land titles and little formal employment except government jobs. Competing systems governing land rights, that is, the overlap between modern land law and traditional land assignment systems, make the use of land as collateral difficult for traditional lenders.
- *Volatility*: Agricultural products face high operational and price risks, and, given the monoculture of many farms and regions, risk diversification is not possible for lenders. There is also significant price volatility both seasonally, but, even more, also over multiyear cycles.
- *Governance*: The provision of subsidized credit through government-owned financial institutions has undermined the culture of credit, and commercial lenders are often reluctant to enter the market. Repeated debt forgiveness by government-owned institutions causes borrowers to confuse loans with grants. In addition, the agricultural sector in most countries is subject to substantial government intervention. Unlike in most developed countries, however, such intervention does not always favor agriculture. This makes agricultural finance more challenging.

These four characteristics of rural areas in Africa mean that the challenge of overcoming scale diseconomies and managing risk is more difficult for financial service providers. As we discuss below, technology can be as powerful a game changer in rural finance as elsewhere. Critically, competition is important to attract new providers, new products, and new delivery channels to rural areas. Demand constraints, including the lack of financial literacy and business development, but also nonfinancial supply constraints, such as lack of access to markets, loom large in agriculture and in rural areas more generally.

In discussions of agricultural and rural finance and in seeking to attain the general objective of expanding access to financial services to previously unbanked segments of the rural population, one should distinguish among target groups, which partly overlap in terms of the concepts of Finance for All, Finance for Markets, and Finance for Growth introduced elsewhere above. Specifically, one should make the important distinction between cash crop producers, who sell their produce on

markets and thus need a large array of financial services, including transaction, savings, and credit services, and staple crop producers, who, in many cases, are subsistence farmers with limited resources and little scope for becoming customers of formal financial institutions. Furthermore, the focus long ago shifted from agricultural credit to a much broader set of financial needs, including the link with nonfinancial corporations, such as input providers and produce purchasers, as well as links with informal financial services providers (see World Bank 2005; Coates and Hofmeister 2010). This reflects the fact that agriculture is, for large parts of the rural population, only one of many income sources.

The market gaps in agricultural credit—documented in chapter 2—led most African countries in the 1960s and 1970s to establish development banks and DFIs that focused on agricultural credit, including, in many cases, extension services. These entities were often supported by donor institutions, including international financial institutions. The performance of these entities has generally not been effective, which reflects an overreach in activism in light of governance deficiencies. Nonperforming loans and little, if any, additionality effect—that is, loans accruing to borrowers that have access to commercial bank credit—undermined the financial performance and economic impact of these entities. Governance challenges, including political interference in the credit allocation process, politically motivated debt forgiveness, corruption, and even incompetence, further damaged the sustainability and efficiency of these entities.

In response to the negative experience with government-managed or government-sponsored agricultural banks, donors and governments have moved away from retail lending in agriculture. The challenge of financial service provision to agriculture and to rural areas continues to exist, however, and it is here that the promise of modernism has not been realized. The good news is that, in recent decades, new products and delivery channels have been developed, new players have entered the market, and new partnerships have emerged. As in the general effort to expand access, there is no silver bullet for the problem of access to finance in rural areas; there will be many small solutions that help push rural finance to the frontier and move the frontier outward. In the following, we discuss some of these innovations and link them to the general theme of this chapter.

Value chains: utilizing existing relationships to expand formal finance

One promising way to overcome the limitations imposed by information asymmetries and the lack of collateral is to use value chains as entry points for financial institutions. Value chain finance, or buyer and supplier finance, is important throughout the economy, but especially in agricultural finance, given the predetermined time periods between sowing and harvesting (box 3.6). Financial relationships related to the value chain are most effective if the value chain is clearly defined, such as the value chain between input providers and farmers or between farmers and wholesalers. Well-structured value chains allow an opening for value

Box 3.6 Examples of Value Chain Finance

Perhaps one of the best examples of short-term trade credit for agricultural producers is the cocoa value chain in Ghana. Cocoa is a huge industry in Ghana, and the purchase of the output from producers is dominated by a market of private sector companies (licensed buying companies or LBCs) with licenses to sell to the state-owned marketing monopoly.

LBCs routinely provide significant amounts of short-term credit to producers for the purchase of the required inputs (for example, fertilizer and pesticides) before the growing season. In return, the cocoa growers commit to selling the resultant cocoa harvest to the LBCs at an agreed price. The capital and interest are repaid to the LBCs through the proceeds of the sale, and the balance goes to the farmer.

Similarly, credit can also be provided by the input supplier. In another example from Ghana, one of the country's largest suppliers of fertilizer and other agricultural inputs furnishes supplies on credit to members of a major cocoa growers association, with repayment due following the harvest.

A bank in Ghana had a large local supermarket as a customer. The supermarket was keen to expand its sales of horticultural produce from local producer groups, but the supply of the produce was unreliable and limited. It wanted to improve the supply chain by making formal arrangements with producer associations to provide an agreed quantity and quality of produce for an agreed price in return for helping to prefinance the horticultural production. Rather than relying on its own balance sheet, it approached the bank with a view to helping with a credit line of its own.

In Mozambique, small farmers have established self-managed outgrower schemes with the assistance of the international program of the Cooperative League of the United States of America. The program established a two-tier structure of producer organizations and their regional associations. The producer organizations serve as the intermediary between the individual farmer and the agribusinesses and other processors that provide short-term production credit and purchase the output. The producer organizations provide extension services to help the farmers improve their methods and the quality of the produce; they also provide storage and transport facilities. While outgrower schemes are well established, particularly in the cotton and tobacco sectors, more loosely organized marketing arrangements are prevalent in the cashew, groundnut, sesame, sunflower, and maize sectors. At the end of 2002, the program had established over 840 producer organizations involving approximately 26,000 farmers. Repayment had reached 96 percent. The program has since been handed over to OLIPA, a local NGO.

Source: GIZ (2010).

chain financing, whereby smallholders can leverage the reputation and collateral of large input providers or large clients for their products.

By using their balance sheets to strengthen existing value chain finance arrangements or to help arrange new ones and contribute their expertise and resources, the financing of a value chain can constitute an important entry point for banks into agricultural finance (box 3.6). DFIs can play a key role by providing platforms for the value chains and bringing together other actors.

Value chain finance can have important benefits for a bank. First, the intermediary firm—be it the buyer of the produce or the seller of the input—has close links with producers at the grassroots, which allows the bank to overcome the constraints of scale and asymmetric information. Second, the intermediary firms are more well placed to make sure that the finance is spent by the borrowers on productive inputs rather than diverted to activities that may not guarantee repayment. The buyer and supplier financing arrangements rely on stable and professional relationships between producers and intermediary firms. To some extent, it is beneficial if the intermediary firms are in a position of power on the market relative to the producer, and the implications of a breach of loan covenants by the producer in terms of subsequent difficulty in sourcing alternative suppliers or buyers, such as side-selling, are therefore clear. This sort of sanction is usually more obvious to producers than the more ambiguous threats of legal actions by banks in costly and ineffective legal systems.

The challenge for the financial institution is to agree on an appropriate credit line and terms and conditions in line with the market risk profile and competitive conditions. It needs to develop a simple and streamlined credit process for the intermediary firm, ideally with a basic application form that the intermediary can use to score the proposed customer in keeping with the agreed credit policy. One of the simplest mechanisms is to mandate that producers receive the payments for their produce in a dedicated account held with the bank (which is particularly easy in the case of supplier finance) from which repayments can be automatically deducted. This also represents a cross-sell opportunity for the bank and a way of increasing the formality of producer financial activity. However, it might also be useful to link a rural-based cooperative or a microbank into the relationship. A major factor of differentiation among value chains is the presence of a strong agribusiness player at some point in the value chain. This increases the overall credit standing of the chain and its participants from the viewpoint of the financial institution. Credit enhancement can also take place through credit guarantees, a topic that is treated more generally in chapter 4.

Looking for collateral

One major problem facing lenders in rural areas is the lack of collateralizable assets. Land can often not be used as collateral, given the dominance of traditional land law or the impossibility of reselling land in a tight-knit community. In several countries, land cannot be owned by foreigners, which makes the use of land as collateral problematic for foreign-owned banks. Secure property rights, however, are also important for other transactions such as the rental or sale of land. Reforms in this area encompass a large number of actions, ranging from legal, sometimes constitutional changes to the establishment of land registries and enforcement mechanisms. One has to be realistic about the outcomes of such actions, however. Traditional land customs and cultural trends will make the application of modern land law infeasible in many rural areas of Africa. This is one of the best examples of modernism reaching its limits.

An alternative used with increasing success is warehouse receipts for crops. Under this arrangement, commoditized produce (for example, wheat, coffee, cocoa, or maize) is deposited in a warehouse by the owner, and a receipt is issued that stipulates the quantity, quality, and type of produce deposited. The warehouse receipt would generally be negotiable, meaning ownership is transferable, which makes it quite suitable for collateral purposes. Financial institutions have therefore been willing to extend loans against this security in the appropriate environment. From a financial perspective, the product is a simple one, but it does require some fundamentals to be established. It is essential that good physical warehousing facilities are available so that all parties to the transaction can be confident that the produce is well protected and secure. There must also be high levels of trust among the players, particularly the assurance that the warehouse operator will not release the produce to any party other than the owner (that is, against the presentation of the warehouse receipt). The inspection and grading services must also be reliable to ensure that the produce is of the precise type, quantity, and quality stipulated. The legal environment must be supportive of the bank's right to realize security quickly and unilaterally in the event of default, usually by selling the warehouse receipt to a third party, and, thus, there must also be a vibrant secondary market for warehouse receipts. There is nothing particularly complex about these components, but they must all work together in a fairly flawless way.

Warehouse receipts tend to be a slightly awkward product for small producers. They rarely have the volume of produce that makes such an operation cost-effective. However, they are suitable for higher levels of aggregation, such as agricultural co-operatives. They are also only suitable for certain types of produce, that is, produce that is highly commoditized and can therefore be reliably and consistently graded, for which there is a clear and open market price, and that is not highly perishable. Warehouse receipts are especially useful for short-term finance. For similar reasons of market volatility, banks will typically only extend a relatively modest proportion of the market value of a warehouse receipt.

Assets such as equipment and machinery can also be financed through leasing, which can help free up working capital over the medium term. These arrangements usually work best when a bank acts closely with a supplier of agricultural machinery and equipment. They usually also work best with assets that enjoy a vibrant secondary sales market. The legal environment has to be appropriate because the bank must be able to seize and realize collateral easily and quickly in the event of default. One of the reasons for the popularity of leases in developed markets has usually been the favorable tax treatment and the potential to treat them as off-balance sheet items for accounting purposes. Leasing and other asset finance solutions have huge potential for African agribusiness and for other parts of the economy, as we discuss elsewhere below under the heading of SME finance. It remains to be seen how much value these solutions will offer directly to the smallest producers, but, given the right circumstances, they certainly have potential.

Looking beyond smallholders and credit

Our focus so far has been on the extension of credit to agricultural and other activities in rural areas, mostly short term. As in other sectors, however, there is also a lack of equity finance in rural areas. Few agribusinesses are sufficiently large to list on a stock exchange or issue debt instruments; private equity thus seems more promising. We return to the theme of private equity providers in the next chapter in discussing the challenge of more long-term finance for African economies, but private equity seems even more difficult in agribusiness than in other sectors. First, agriculture is much more heterogeneous than other sectors in terms of products and markets, meaning that it is more costly for private equity funds to undertake market research and specialize. Second, information asymmetries are typically larger in agriculture, and monitoring is made more difficult because of the distances. Third, as much as in other sectors, there is often a lack of exit options for private equity financiers.

Looking to other financial services and beyond finance

While the emphasis of policy makers was for a long time on agricultural credit, the debate has more recently broadened from agriculture to rural areas generally, given that the incomes of a large share of the population in rural areas does not depend exclusively on agriculture. The debate has also broadened from credit to financial services more generally, given the financial needs of the rural population (and the urban population); one has to consider the entire array of products, from short-term trade credit to long-term investment credit, but also beyond credit to savings and payment products, as well as insurance services.

Technology can be especially useful in rural areas. However, one has to be realistic in terms of which technology is the most cost-effective, given the higher costs of financial service provision mentioned above. One case in point is the Dowa Emergency Cash Transfer Program (2006–07) of Opportunity International Bank of Malawi. The bank set out with the objective of helping the poor in remote, drought-stricken parts of the Dowa District to purchase food. To enable the related cash transfers, the bank employed off-line smart cards developed by Net1 Aplitec. The system was supposed to match funds deposited at the bank with the identity of each approved recipient established by the smart card at enrolment. To deliver the cash payments, 11 paypoints were introduced that were serviced by a van equipped with ATMs to read smart cards and with fingerprint readers to authenticate each recipient biometrically before payment. The project increased the outreach of financial services in Dowa: 45 percent of the recipients were still using their bank accounts in 2009 (Pickens, Porteous, and Rotman 2009). And yet, during the project, 80 percent of the funds were used to purchase food, indicating that the poorest had a rather low need for transactions outside the government-to-person payments.¹⁴ Despite being effective, the smart card technology was expensive, taking

up 23 percent of the overall cash that was put into the project, but that was supposed to reach the poor. Furthermore, because the technology was expensive and proprietary, the project could not be scaled up. Pearson and Kilfoil (2007) conclude that the smart card could have been replaced by a substantially cheaper technology: magnetic stripe cards.

Index-based weather insurance is a relatively new product that allows small-holder farmers to hedge against risks stemming from natural disasters, such as drought or flood. The policy pays out only if a publicly observable index, such as rainfall, passes a certain threshold. Such an instrument allows insurance to be provided against one of the most important sources of volatility and risk for agricultural producers. The principal advantage relative to traditional insurance policies is that individual insurance cases do not have to be followed up by the insurance company. The challenge, meanwhile, is to identify an index that is closely related to the actual variation for the individual producer and to have sufficient time series available to compute appropriate thresholds for insurance payout and actuarially fair premiums.

Recent experience with the introduction of such a product in Malawi offers valuable insights (Giné and Yang 2009). First, the marketing of index insurance is critical for the take-up of such a product. Teaching smallholder farmers the advantages of such a product and the payout structure is important; designing the product in a way that pays out relatively often in the first few years can increase acceptance. Linking such a product to credit provision can constitute a win-win proposal for borrowers and lenders, though borrowers might be reluctant to pay extra given the limited liability of many agricultural loans.

Another useful innovation is the application of radio frequency identification technology to monitor the movement of livestock so as to ensure there are no fraudulent insurance claims. This reduces the premium cost and also increases access to finance by the livestock owners.

It is important to look beyond the financing constraints for agricultural producers. While the observation of a lack of finance has often led to the conclusion that limited access to finance is the binding constraint on agriculture, this may not be the case. First, there may be serious demand-side constraints in the form of missing bankable projects. Second, agriculture faces an array of constraints, including the transportation problems associated with bringing produce to market. As much as in other sectors, business development services are important in agriculture.

Institutions for rural finance

There is an increasing variety of players in rural finance in Africa. While micro-finance has been traditionally limited to urban areas, more and more donor-financed and donor-supported institutions are pushing out toward rural areas, partly because the urban MFI market is maturing. One challenge faced by MFIs catering to clients with income streams dominated by agriculture is the high risk

and seasonal volatility of revenues. The solution requires lending based on anticipated crop production rather than current cash flows. It also involves longer loan periods and bullet payments rather than regular, frequent repayments. Risks related to price volatility and natural disasters have to be taken into account by the lender and priced appropriately. One important set of institutions in rural finance are community-based institutions, especially in connection with banks.

With the new approach to rural finance, the role of government has changed from direct lending through DFIs or agricultural loan quotas imposed on commercial banks to a more policy-oriented wholesale function. By the 1990s, it had become clear that most of the activist market-replacing approaches, such as interest rate caps, direct lending by government-owned institutions, lending quotas for private institutions, and credit forgiveness, were not working. However, reliance on market forces alone has not proven successful either. Some governments responded by establishing dedicated institutions with different mandates combining agricultural extension services and financial services. In Malawi, the government went further and established a plethora of government institutions and programs (box 3.7, on the next page).

In summary, the analysis of financial service provision in rural and agricultural finance is consistent with other themes and messages in this book. As in the case of SMEs in other sectors, there is a dearth of equity and new institutional forms to fill this gap. Rural finance in general and agricultural finance more specifically need a variety of different institutions for different services. The analysis of rural finance also underlines that we need an increased focus on services and users that looks beyond institutions providing credit, as well as on the needs of users in rural areas, whose livelihoods may not be linked to agriculture, but who, in any case, require an array of financial services.

Our analysis of agricultural finance emphasizes that one size does not fit all. Different countries specialize in different crops, mostly because of climate factors, and, for historical reasons or because of the crops, have different organizational structures in agriculture (that is, microfarms, smallholders, and agribusinesses) and in rural financial institutions. Different forms of financing and innovations in finance are therefore appropriate for different countries.

SME Finance: Continuing Challenges

It is by providing financial services to firms with good growth opportunities that the financial sector has its main impact on African economies, helping them to grow and converge to the high-income levels of advanced economies. However, it is not so much the overall level of credit, but, rather, the allocation of credit to the most creditworthy that matters. Firms look toward banks and other financial institutions for an array of financial services, including payment, deposit, and insurance services. However, it is through the external financing function that financial institutions and markets play their most important role.

Box 3.7 Malawi: Development Finance Institutions

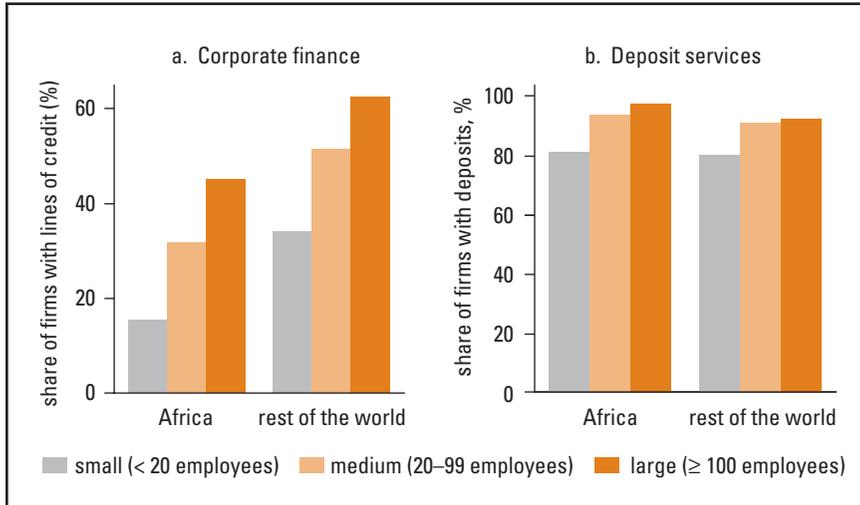
The Malawi Rural Finance Corporation (MRFC) was established in 1993 following the collapse of the Small Holder Agriculture Credit Administration. MRFC began operations in October 1994 using the former rural extension service offices of the Ministry of Agriculture and Irrigation that had belonged to the Small Holder Agriculture Credit Administration. The Malawi Savings Bank was incorporated in 1994 as a successor to the financial services arm of the Malawi Post Corporation, then known as the Malawi Post Office Savings Bank, which was established in 1911 to mobilize rural savings. Other government programs include the Malawi Rural Development Fund, which was established in January 2005 to increase access to finance among low-income groups in rural communities; the Small Enterprise Development Organization of Malawi, which has been focusing on a crop marketing loan scheme and a group lending facility; and the Development of Malawi Enterprises Trust, which was established in 1979 and focuses on business advisory services but also provides limited loan services for small enterprises.

Some programs achieved a modest measure of success. For a long time, government ownership of the Malawi Postal Services savings accounts increased public trust in the banking system, leading to more savings and a deeper rural financial market. MRFC had 200,000 loan customers in 2002 and an estimated 293,600 in 2003, making it one of the largest lenders to smallholder farmers in Sub-Saharan Africa. Today, it has 120 field offices, 20 supervisory offices, 6 branches, and the head office. Malawi Savings Bank currently has a network of five branches and 35 agencies. All its branches have dial-up internet connectivity, an improvement over their previous manual processes. Its deposit base grew from MK 1.8 billion in 2005 to MK 3.8 billion in 2007. With a minimum account opening requirement of only MK 500, it is able to attract deposits at the lower end of the market.

Overall, however, the performance of government-owned financial institutions and programs has not been stellar. By 2004, the loan portfolio of Malawi Savings Bank (around US\$1 million) was heavily concentrated in a few companies (42 percent was lent to one borrower). Although performance has improved more recently, the bank is not maximizing its full potential. At the MRFC, collection on loans fell from 90 percent in 2004 to 80 percent in 2005 and 74 percent in 2006. MRFC's income has also been impacted by the fall in Treasury bill rates and competition in the SME lending market from the National Bank and the National Building Society. Furthermore, because MRFC does not have a banking license and is not part of the payments system, its operations are restricted, and it cannot engage in regular revenue generating financial intermediation activities. MRFC also has problems in managing information flows within its network.

The size gap

One striking characteristic of financial underdevelopment is the limited access of firms to external funding, be it debt or equity. While most firms—even in Africa and even the small ones—have access to deposit services and thus payment services through banks, the picture on the credit side is different. Moreover, alternatives to banking credit are few and far between. Few firms are listed, and, among those that are, even fewer have used the possibility to issue corporate bonds. This reduces the

Figure 3.9 The Size Gap in Corporate Finance and in Deposit Services

Source: Enterprise Surveys (database), International Finance Corporation, World Bank, Washington, DC, <http://www.enterprisesurveys.org/> (accessed in 2010).

Note: Sample size: 90 countries.

financing choices of firms to retained earnings, funds from family and friends, and supplier credit. Cross-country comparisons have, in addition, shown that there is a size gap in corporate finance: small firms have more difficulty accessing external finance than medium-size firms, which, in turn, have a more difficult time accessing external finance than large firms. This size gap in corporate finance is greater in financially less well developed countries. Not surprisingly, therefore, this size gap is larger in African countries than in other developing countries, while the size gap in deposit services is about the same in Africa as in non-African developing countries (figure 3.9). The other striking observation is that, across all firm size groups, the average use of deposit services is as great or even greater in Africa, while access to credit is significantly less in Africa. We find a similar variation across firms of different ages: firms that have been established more recently receive significantly less external finance than older firms (also reflecting a survivor bias). Across all firm age-groups, however, African firms are less likely to have a loan or credit.

The financing of SMEs continues to pose significant challenges not only for African financial systems. It is important, however, to distinguish among the small enterprises that have different financing needs and different profiles. A large share of the enterprises in Africa consists of informal microenterprises that have been established because of a lack of alternative economic opportunities. Because these firms are not able to produce formal financial accounts or formal guarantees, it is hard to see this segment of the enterprise population becoming bankable over the medium to long term, at least not for credit services. They seem a natural target

group for microcredit institutions and rely more heavily than other enterprises on informal finance providers. A second segment consists of medium-size enterprises that are well established and, often, export oriented. In most cases, they have access to bank finance, but struggle to gain access to equity finance, including through financial markets. Finally, there are small formal enterprises, some of which may possess significant growth potential. These firms—often referred to as the missing middle—are usually too big to use MFIs, but not sufficiently formal or well established to use banks.

The International Finance Corporation–World Bank Enterprise Surveys (used also in chapter 2) provide additional insights into the financing structure of enterprises of various sizes and the constraints enterprises face.¹⁵ Small firms consistently report greater financing obstacles relative to medium and large enterprises, as do younger firms throughout the developing world. The limited access of firms to external finance can be explained by constraints on both the supply side and the demand side. Banks typically impose high collateral and documentation requirements, citing information barriers and deficiencies in the contractual framework, as well as poor applicant capacity in preparing clear business plans. There is a tendency toward cash and personal guarantees because land and machinery are more costly to use as collateral given the deficiencies in the legal system, collateral registries, and the court system. Audited financial statements are a *sine qua non* for most banks, though they are not a sufficient condition for banks to grant credit. Finally, there is a tendency toward short-term credit for working capital rather than medium- to long-term credit for fixed asset purchases, as documented in chapter 2.

Most small firms and even many medium-size firms face significant hurdles in complying with bank requirements in collateral and documentation. Moreover, the related opportunity costs may be substantial given the high cost of finance and the other costs of formality that the business environment imposes. Accordingly, it is not surprising that banks often explain their high liquidity with reference to the lack of bankable projects, while firms complain about the lack of financing for investment projects. Policy has to address the market frictions that drive this spread between supply and demand.

An important area in this context is accounting and auditing standards. Most African countries have weak accountancy professions, partly because of the weak education and training programs in accountancy and auditing practices and partly because of the weak oversight institutions. This calls for capacity building and development, but also for assistance with institution building. Beyond these important issues, however, is the question of whether standard accounting rules are too much of a burden or even necessary for SMEs. There seems to be a need for the development and implementation of simplified accounting standards for microenterprises and for SMEs. This still leaves open the issue of the acceptance of proper financial reporting and the costs this involves among enterprises. Only if enterprises see the benefit of increased access and the lower cost of external finance will

they be willing to incur these costs. Financial literacy and business development services can help to a certain extent in this area.

Bank finance: relationship versus transaction lending

In the absence of a functioning contractual and informational framework, banks have found alternative mechanisms to manage credit risk and ensure repayment. Where no credit registries exist, information about existing borrowers is exchanged informally among bank executives, which is only feasible in small and concentrated banking systems based on old boy networks that, in turn, strengthen the oligopolistic nature of the systems. Especially in the case of smaller enterprises, there is a tendency toward relationship lending (Berger and Udell 1996). Long relationships between a financial institution or even a specific loan officer and the borrower allow problems of information asymmetry and, thus, risk to be overcome. Relationship-based lending, however, might be more costly, moving the equilibrium away from the access possibilities frontier discussed above. Recently, the more nuanced view has been put forward that large banks and foreign banks, relative to other institutions, can have a comparative advantage at financing SMEs through arm's-length lending technologies, such as asset-based lending, factoring, leasing, credit scoring, and centralized organizational structures (see Berger and Udell 2006; de la Torre, Martínez Pería, and Schmukler 2010).

The debate on relationship-based versus transaction-based lending techniques also has implications that affect whether institutions can cater cost effectively to SMEs. Relationship lending might be more readily done by small, community-based financial institutions, while transaction-based lending is more cost effectively done by large financial institutions that can exploit the necessary scale economies implied by investment in technology. In many developing countries, this debate has an additional dimension because smaller banks are often owned by domestic shareholders, while large financial institutions are often foreign owned. Using data for 91 banks across 45 countries, Beck, Demirgüç-Kunt, and Martínez Pería (2011) find that foreign banks are more likely to use transaction-based lending techniques and more centralized business models relative to domestic banks. However, they also show that foreign banks do not tend to lend less to SMEs relative to other banks. It thus seems that both relationship-based and transaction-based lending techniques are appropriate for SME lending and that domestic and foreign-owned banks can cater to SMEs.¹⁶

Expanding into the SME segment often requires a new approach and attitude as a bank in Nigeria demonstrates (World Bank 2010b). After bringing in international expertise, the bank launched new products targeted specifically at SMEs. It scrapped its Commission on Turnover, which effectively penalized customers for growing their deposit accounts. It began charging its SME customers a tiered fixed rate for banking (capped at ₦6,000 per month), which quickly resulted in the rapid growth of the bank's SME loans. The bank then introduced a peripatetic

system of quarterly seminars where SMEs gathered to hear various success stories and gain valuable information and expertise from SME bankers and other business leaders. The bank introduced an entrepreneur's guidebook and launched a business club where SMEs could network and develop valuable business relationships. In Egypt, meanwhile, Banque Misr has targeted the SME segment by allowing lending to SMEs to be conducted in a completely different way relative to corporate lending. This included hiring young graduates as loan officers without the preconceptions of experienced loan officers in terms of risk assessment. Taking a page from microfinance, Banque Misr introduced step-up loans, allowing SMEs to take out increasingly larger loans upon the full repayment of previous loans (Napier 2011).

Beyond an increasing focus on transaction lending as opposed to relationship lending, there have been other innovations in SME financing. Several regional banks, including Absa and Standard Bank, have started using psychometric assessments as a viable low-cost, automated screening tool to identify high-potential entrepreneurs and evaluate risk and future potential; these have proven successful in initial pilot tests.

Looking beyond bank finance

Leasing can be a prominent instrument for SME financing. Leasing is a contractual arrangement whereby one party (the lessee) can use, for a defined period of time, an asset owned by a second party (the lessor) in exchange for periodic payments. Several arguments may be put forward to explain why supporting the leasing industry is important for Africa. First, collateral requirements have been well documented as one of the main impediments that prevent African SMEs from accessing the traditional forms of financing needed to acquire machinery and equipment. Leasing is backed by cash flows from assets, and its applications are often assessed based on a project's capacity to service lease payments. Accordingly, businesses and entrepreneurs that are denied traditional banking and commercial credit because of their lack of credit histories and inability to provide sufficient guarantees can find a new financing alternative in the leasing market. This could also bring more businesses into the formal sector (IFC 2009). Second, leasing allows businesses to avoid tying down resources, which should reduce pressure on their financials and free resources for other purposes. It also translates into lower barriers against starting a business or upgrading existing facilities, which should promote entrepreneurship and the acquisition of new technologies. New equipment is likely to reduce maintenance costs and increase productivity. Additionally, unlike bank credit, leasing directly provides the asset, instead of the financial resources needed to acquire the asset, which reduces the possibility of diverting funds from the intended purpose. Leasing contracts involve less paperwork and more relaxed credit requirements as well, which lead to shorter waiting periods relative to bank loans. According to a review of the leasing sector in Tunisia, funding could be offered in periods as short as 24 hours (MAC SA 2010). Reduced waiting times allow companies to respond quickly to business needs without having to lose important transactions.

Despite these advantages, the African leasing market is still in its infancy, representing a tiny 1 percent share of the world leasing volume (White 2009). Where they exist, most leasing markets in Africa are small and underdeveloped; annual leasing volumes do not exceed US\$500 million. Even in larger African markets, such as Egypt, Morocco, Nigeria, South Africa, and Tunisia, which exceed this threshold, penetration rates—measured as the ratio of the annual leasing volume to GDP—are below 2 percent, compared with ratios above 3 percent in many markets in Central and Eastern Europe (White 2009).

Most leases are finance leases, reflecting the limited development of the leasing market in Africa, given that operating leases usually develop at a later stage relative to finance leases. Another feature of African leasing markets is the dominance of banks and bank-related operators. In Ghana, bank lessors sourced more than 75 percent of the new leases in 2007 and held 65 percent of the market share, while five of the six leasing companies operating in Morocco are backed by banks (Naouar 2009; APSF 2010). In Tunisia, of the 10 leasing companies, the major shareholders of 8 are banks (MAC SA 2010). Such ownership structures could potentially threaten the potential of leasing to service SMEs; experience shows that banks offering leasing through internal units tend to target large-ticket, low-risk clients (IFC 2009). The African leasing market also continues to be centered on the provision of financing for vehicles. In Rwanda, vehicle financing represented 65 percent of total leasing activity (IFC 2007). Similarly, in 2009, vehicle financing accounted for 46 percent of lease financing in Morocco (APSF 2010), while the Equipment Leasing Association of Nigeria recently disclosed that commercial vehicle leasing represents the bulk of leasing business in Nigeria. This is driven to a large extent by the availability of a thriving secondary market for such products. The sectoral distribution of leasing activities also reflects the structure of local economies. For instance, in 2009, oil and gas captured more than 45 percent of the lease transactions in Nigeria, while construction and transformative industries received 48 percent of the lease financing in Morocco.

Leasing thus has large potential, but there are important regulatory impediments. There are taxation issues concerning sales or value added taxes and the deductibility of asset-related depreciation costs. Inefficient repossession systems also limit the leasing activities in a number of countries. This includes lengthy court procedures for asset repossession, the absence of implementation bodies, and a lack of capacity in the juridical system. The average length of time taken by the courts to issue repossession orders in Egypt in 2005 has been estimated at around one month (Nasr 2008). As noted by Al-Sugheyer and Sultanov (2010), the requirement to register the leasing contract, not the leased asset, in countries such as Egypt adds no benefit and may prevent leasing companies from entering the market if the incurred cost is prohibitively high. The lack of capacity in the juridical system to handle commercial cases was also identified as a challenge for the leasing sector in Rwanda (IFC 2007). Similarly, in Kenya, once two-thirds of the price has been paid by the lessee, the lessor has no right of repossession (Kapchanga 2010).

The scarcity of funding is an additional challenge that leasing companies need to address in Africa. Leasing companies depend on external funding from donors and wholesale borrowing to fund their operations. Funding availability and cost could prevent them from competing with banks and threaten their financial viability. This may explain why the leasing market is still dominated by banks.

Similarly, factoring—the discounting of sales receivable—is attractive for small suppliers of large creditworthy buyers because it does not rely on information about the borrower, but rather on the obligor (Klapper 2006). Under a factoring contract, the factor purchases the seller's accounts receivable, with or without recourse, and assumes the responsibility to collect repayments. Originally limited to domestic contracts, international factoring has become popular because it eases the credit and collection burden of international sales on exporters. Several African middle-income countries have factoring industries, though these are focused on domestic rather than international factoring. Like leasing companies, factoring companies can only function within a legal framework governing these transactions, but rely to a lesser extent on the contractual framework of a country so that they can help push a financial system toward the frontier of SME lending, even if this frontier is too low. Development finance institutions can have an important role in jump-starting this industry, as shown by an example from Mexico, described in Box 3.8.

A key constraint on bank finance is the lack of equity in enterprises. Significant leverage can prevent enterprises from pursuing more debt so that a lack of equity rather than a lack of debt is the binding constraint. At a more general level, equity can be a potentially beneficial financing source for enterprises in their early years and for enterprises with a profile of high risk. Yet, there are few, if any, instruments and vehicles for equity finance available in most African countries, as we discuss in more depth in chapter 4.

Increasingly, equity funds that specialize in SMEs are appearing across Africa. Business Partners International Kenya SME Fund is a private fixed-life fund established in 2006 that invests in the equity, quasi-equity, and debt of Kenyan SMEs and has been successful in ultimately attracting external financing from donors and private sources. Several Aureos Capital Funds focusing on East, West, and South Africa have also been set up with support from donors.

Demand-side constraints

While supply constraints are important in the access of SMEs to finance, the demand-side constraints should not be underestimated. Table 3.5 presents data from the Enterprise Surveys to explore the various categories of banked and unbanked enterprises in Africa and in non-African developing countries. A first remarkable result is the small number of African enterprises that have taken out loans. Perhaps even more striking is the fact that only 23 percent of the African enterprises without loans have applied for a loan, compared with 40 percent in non-

Box 3.8 NAFIN's Productive Chains

Nacional Financiera (NAFIN) is a Mexican development bank created in 1934 to provide commercial financing. NAFIN is mostly a second-tier bank, lending 90 percent of its portfolio to banks. In 2001, NAFIN launched an online system, *cadena productivas* (productive chains), to provide reverse factoring services to SMEs. NAFIN's online system is important because small businesses, lacking access to bank credit, frequently face difficulty financing the production cycle, and most buyers usually take between 30 and 90 days to pay their accounts payable. NAFIN's online system helped breach the 60-day liquidity gap. NAFIN's factoring program has been successful, extending over US\$9 billion in financing since its inception in September 2001 and brokering more than 1.2 million transactions, 98 percent by SMEs.

Once a supplier delivers goods to the buyer and issues an invoice, the buyer posts an online negotiable document equal to the amount that will be factored on its NAFIN Web page. Participant financial institutions that are willing to factor this particular receivable post their interest rate quotes for the transaction. The supplier can then access this information and choose the best quote. Once the factor is chosen, the discounted amount is transferred to the supplier's bank account. The factor is paid directly by the buyer when the invoice is due.

NAFIN developed, produced, and marketed the electronic platform. To participate, all financial institutions must use NAFIN's second-tier funding to provide credit through the system. For this service, NAFIN does not charge a fee; instead, it covers its costs using the interest it charges on its loans.

To reduce information problems, in the NAFIN case, it is the buyer who posts the accounts payable on the online system (reverse factoring), thus reducing risk. The financial institutions (factor) only need to assess the creditworthiness of the buyer, which is frequently a large firm. Hence, it is the buyers who invite suppliers to join their chains and the online system. This reduces principal-agent problems by effectively outsourcing screening to the buyers, who have an informational advantage relative to financial intermediaries. All transactions are carried out on the electronic platform, reducing transaction costs, increasing speed, and improving security. The online system also increases transparency because all banks can access historical information on the performance of suppliers, which helps them establish a credit history.

NAFIN's experience suggests that, to foster competition through this type of intervention, it is necessary to facilitate the participation of all financial intermediaries and avoid giving preferential access or other advantages to larger banks or public institutions. Furthermore, a significant advantage of factoring, especially in developing countries, is that it does not require good collateral laws, but only the legal ability to sell or assign accounts receivable.

NAFIN's initial participation has been important as it helped foster innovation. If a private financial institution would have invested in a like online system, it would have had little incentive to let other financial institutions participate and thus compete. The initial investment in the development of a large retail sales staff and promotional resources to reach firms and establish the productive chains has been central.

Source: de la Torre, Gozzi, and Schmukler (2008).

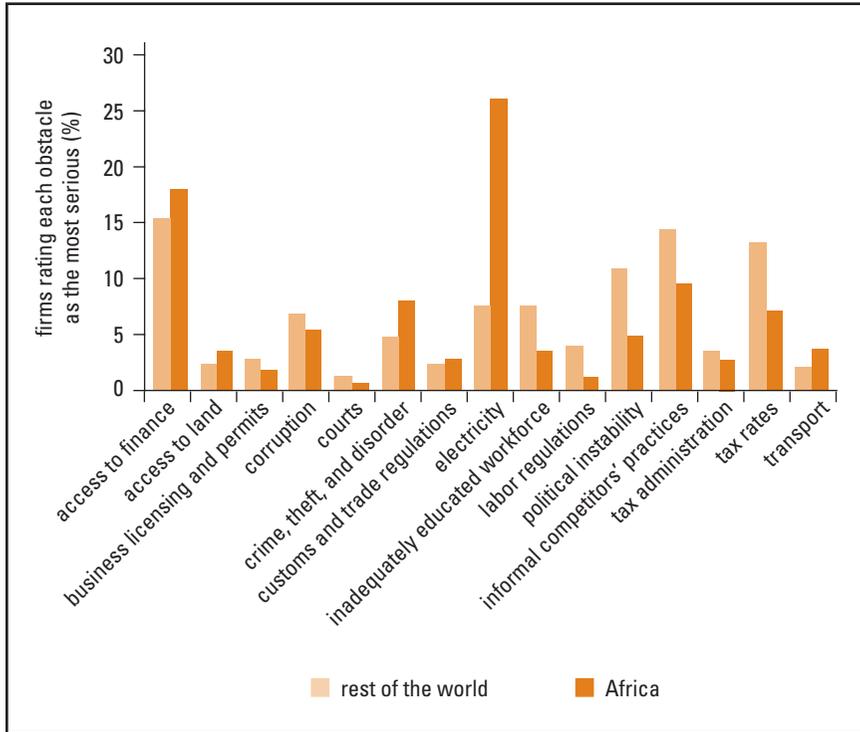
Table 3.5 Enterprise Credit Demand: Comparing Africa with Non-African Developing Countries

	Do you have a loan?	
Area	Yes	No
Africa	22.44	77.56
Rest of the world	47.59	52.41 ↓
	Did you apply for a loan?	
Area	Yes	No
Africa	22.82	77.18
Rest of the world	40.01	59.99 ↓
	Why didn't you apply?	
Reason	Africa	Rest of the world
No need for a loan	40.80	64.44
Application procedures are complex	17.96	6.51
Interest rates are not favorable	16.74	12.48
Collateral requirements are too high	9.55	5.18
Size of loan or maturity are insufficient	2.25	1.68
Informal payments needed to obtain bank loan	5.69	1.75
Did not think loan would be approved	6.92	6.42
Other	0.10	1.54

Source: Enterprise Surveys (database), International Finance Corporation, World Bank, Washington, DC, <http://www.enterprisesurveys.org/> (accessed in 2010).

African developing countries. The reasons given for not applying also show interesting differences. The share of enterprises that cite the lack of demand is significantly lower in Africa (41 percent) than in non-African developing countries (64 percent), suggesting that lack of demand is less of a problem in Africa than elsewhere. There are two interpretations of the high interest rates (17 percent in Africa versus 12 percent in non-African developing countries) as a reason for not applying. On the one hand, the return on investment in projects may be too low. On the other hand and more in line with the high interest rate spreads noted in chapter 2, the cost of credit may impede the use of bank finance. Even more striking as a reason for not applying is the difference in application procedures. Among nonapplicant enterprises, 18 percent in Africa cite this as a reason for not applying, compared with 6.5 percent in non-African developing countries. Collateral requirements also seem more of an impediment in Africa than in other regions of the developing world (9.5 versus 5 percent), as does the need for bribes (5.7 versus 1.8 percent).

It is important to stress that financing is only one of the many obstacles that African enterprises face in their operation and growth. As indicated in figure 3.10,

Figure 3.10 Business Obstacles in Africa and Elsewhere

Source: Enterprise Surveys (database), International Finance Corporation, World Bank, Washington, DC, <http://www.enterprisesurveys.org/> (accessed in 2010).

Note: Sample size: 90 countries.

African firms report greater obstacles than firms outside Africa in financing, but also in access to land, customs and trade regulations, transport, and, most strikingly, electricity. This points to the deteriorated physical infrastructure that African enterprises have to deal with, as well as the deficiencies in the broader regulatory environment.

Conclusions

The access landscape and the agenda are diverse in Africa. Relative to a few years ago, we have a much better picture about the demand and supply of formal and informal financial services across Africa. Having better data also allows us to benchmark countries and to formulate targets for policy. The framework of the access possibilities frontier allows us to disentangle the challenges in the expansion of outreach. Specifically, we have distinguished among (1) constraints that prevent

the financial system from reaching the maximum commercially viable outreach and (2) demand-side constraints that depress the effective demand for financial services and the possibilities for pushing out the frontier, which is too low, through (3) technology and (4) government policies.

The analysis of these challenges and the possible solutions leads us directly to the three main messages of the book. First, allowing competition within banking systems and from outside banking systems will foster the necessary financial innovation to push the financial system toward the frontier and exploit the opportunities that new methodologies, products, and technologies offer. An increased focus on competition, however, has critical repercussions on regulation and government policy in general. Fostering competition implies a more open regulatory mind-set. This might require reversing the usual timeline of legislation-regulation-innovation among new players and products and adapting a more try-and-see or test-and-see approach, as applied by regulators in Kenya with respect to M-Pesa. It also means expanding traditional infrastructure, such as credit registries and payment systems, beyond banks. However, it might also imply a more activist, hands-on government approach to force financial institutions to share infrastructure, such as payment systems and credit registries.

Fostering competition and openness toward new services and products is directly related to the second main message: focusing on services rather than existing institutions and markets. A focus on expanding the provision of payment, savings, and other financial services to previously unbanked segments of the population might mean looking beyond existing institutions, products, and delivery channels, such as banks, traditional checking accounts, and brick-and-mortar branches. It might also mean a new approach to inclusion by moving away from the credit-led approach toward a savings- or transaction-led approach.

Our third message—focusing as much on demand constraints as on supply constraints—refers mainly to financial literacy programs for households and enterprises and the need to address nonfinancial constraints, especially among small enterprises and in rural areas.

The options for expanding the access to financial services and the opportunities for governments to implement policies to enhance access vary across country groups, as we see throughout the chapter. Competition is more difficult to achieve in small financial systems, be they small because of low-income status or because of small country size. Yet, dominance of the mobile phone market is more likely in small economies, so that it might be easier for a new provider to achieve the necessary scale. In small financial systems, it is more important to allow for competition from all possible providers. There is a premium in these economies on increasing competition through crossborder providers. In countries with high shares of government ownership in financial systems, such as in North Africa, a stronger role for the private sector can be helpful. There seems to be little relationship between country size and the extent to which governments and donors can address demand-side constraints. However, sophistication might vary. In middle-income countries such

as South Africa or the countries in North Africa, the focus is on the various options, while, in low-income countries across most of Sub-Saharan Africa, the focus is on the use of financial services in general. This is certainly an area where one size does not fit all.

Technology can be a game changer throughout the continent, but its impact is larger in some countries than in others. It is especially important in countries with disperse populations so that traditional delivery channels are more costly than elsewhere. It can also be more important in countries at lower levels of financial and economic development so that it can help financial systems leapfrog.

Notes

1. Typically, individuals are likely to give more accurate responses on their expenditure patterns than on their incomes.

2. For the following, see Beck and de la Torre (2007) for a more in-depth discussion.

3. We can derive a similar curve for credit services, though with the complication that the price, that is, the interest rate, is endogenous. Rather than focusing on the overall population of potential borrowers, we therefore have to focus on the universe of loan applicants, that is, the supply constraints. See Beck and de la Torre (2007) for a more detailed discussion.

4. Note that a key problem in emerging markets may be a lack of investment projects that deserve financing based on the expected return. While this is a relevant problem, it is not a problem of access to finance.

5. The data used in the analysis are taken from the latest surveys and reports of the Consultative Group to Assist the Poor (CGAP) and the Microfinance Information Exchange (MIX) (for example, see Pickens, Porteous, and Rotman 2009; CGAP and World Bank 2010; Kumar, McKay, and Rotman 2010; MIX and CGAP 2010). While this is the most comprehensive data set available on MFIs, there is a caveat related to the fact that only MFIs who reported to MIX and CGAP are taken into consideration in the surveys, meaning that data may not be as comprehensive as one might expect. Yet, MFIs that report to MIX and CGAP are often market leaders and control a large share of the microfinance market. The statistics are therefore an acceptable reflection of the development of the microfinance market.

6. The lending penetration rate represents active borrowers as a percent of the population living below the national poverty line. The savings penetration rate represents depositors as a percent of the population living below the national poverty line.

7. It is important to note that these averages are based on data of the Microfinance Information Exchange, which represents a (supposedly higher-quality) subset of MFIs throughout the developing world.

8. Islamic products have to be offered through specialized windows that must, in theory, rely on resources that are ring-fenced because the source of the resources and the use of the resources have to be Sharia-compliant, that is, assets and liabilities must match.

9. For the discussion in this section, see Porteous (2010).

10. First-generation models of m-banking were launched in the late 1990s mostly in European countries as additional delivery channels for financial services for existing customers. This approach is referred to by Porteous (2010) as an additive approach rather than

the transformative approach of second-generation models of m-banking that target the previously unbanked in Africa.

11. For the positive effect of credit information sharing on stability, see Houston et al. (2010); for the effect on the financing constraints on firms, see Galindo and Miller (2001).

12. Even stronger may have been the incentive of the expectation of cross-selling because mobile payment revenues appear to constitute a miniscule share of Safaricom's overall revenue stream.

13. Making Finance Work for Africa (database), Partnership Secretariat, African Development Bank, Tunis, <http://www.mfw4a.org/>.

14. See Pearson and Kilfoil (2007). The results of this study have also been published in Bankable Frontier Associates (2008).

15. Enterprise Surveys (database), International Finance Corporation, World Bank, Washington, DC, <http://www.enterprisesurveys.org/>.

16. This is consistent with evidence from the transition economies, where foreign banks quickly went down-market after their entry (De Haas and Naaborg 2005).