

## Chapter 2

# Landscaping African Finance

### Introduction

**T**he global economy and the global financial system are at the tail end of the Great Recession, the worst crisis since the Great Depression, and a first assessment of the impact on African financial systems can be made. This is not to say that risks of additional shocks and heightened volatility do not exist, but, according to all indications, the worst of the crisis is over, notwithstanding the ongoing crisis in several European countries and recent political turmoil in North African countries. However, it is also clear that there will be no return to the easy, cheap money of the early years of the 21st century, a theme we pick up below. Moreover, continuing global imbalances will make the global financial system susceptible to further shocks and fragility.

In this chapter, we (1) assess the impact of the crisis on Africa's financial systems and (2) present a broad quantitative analysis of these systems. In doing so, we benefit from a much broader set of data sources than did Honohan and Beck (2007). Specifically, we draw on a data collection exercise that was undertaken for this book and that focuses on the structure and various segments of financial systems in Africa, including the market, portfolio, and maturity structure of financial institutions and instruments. We also draw on significant advances in measuring access to financial services achieved at the Consultative Group to Assist the Poor and the World Bank. Finally, we benefit from the growing interest of academics and analysts in African financial systems and the consequent data collection efforts.

### The Effect of the Crisis

As the recent global financial crisis starts to fade into the distance, the debate on the impact of the crisis on Africa and the related long-term implications is alive with

varying degrees of relief and caution.<sup>1</sup> Many are relieved that the direct impact has not been as severe as it might have been. Others remain concerned that the impact on the financial sector, through the secondary effects on the real economy, may actually be more significant and long-lasting than was first assumed. This chapter argues that, more important than either position, is the fact that the crisis not only stalled the gains in financial inclusion achieved in Africa in the run-up to the crisis, but also exposed the structural weaknesses in the sector that had remained unresolved even as the continent was making progress on key access indicators.

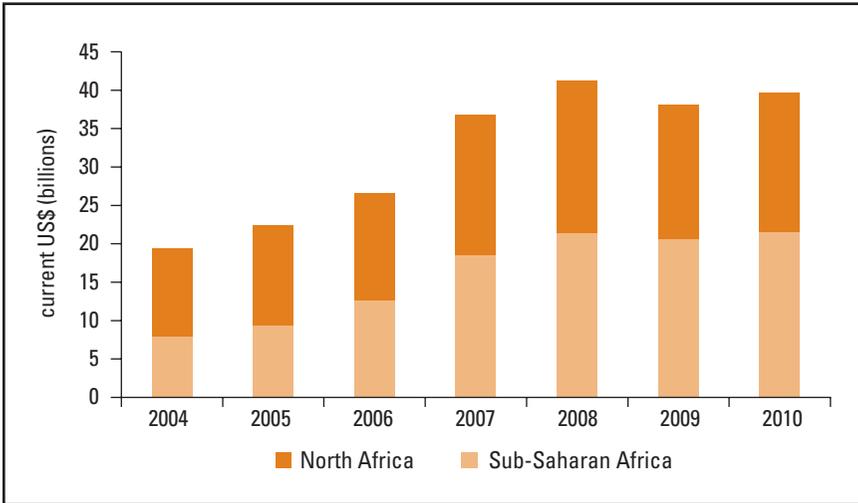
The conventional wisdom at the height of the crisis was that, with the exception of large and globally more connected economies such as Kenya, Nigeria, and South Africa, the crisis would have little impact on Africa because the transmission mechanisms between the financial systems in Africa and the systems in the rest of the world were weak. African financial institutions, it was argued, were not exposed to the risks emanating from the complex instruments in international financial markets because most of the banks in Africa rely on deposits to fund their loan portfolios (that they keep on the books to maturity), most of the interbank markets are small, and the markets for securitized or derivative instruments are small or non-existent. African financial institutions reportedly experienced increases in their international lending costs and shorter maturities as a consequence of the crisis, but the effect remained small given the modest level of external lending.

In time, however, this conventional view started to give way to concerns about the second-round effects through the real sector. In addition, the impact was significant through reduced capital flows, especially lower portfolio flows, but also lower foreign direct investment (FDI) and aid flows. International capital flows to Africa dried up. Africa also suffered from a drop in remittances from Europe, though with a lag after the onset of the Great Recession and though part of this effect was caused by devaluations in local currencies (see figure 2.1).<sup>2</sup> Finally, there was a wealth effect in countries with stock markets: stock indexes dropped substantially, though they recovered in most cases. The initial expectations during the crisis, the current view, and the anticipated policy implications of these trends are discussed below.

### ***Stock market performance***

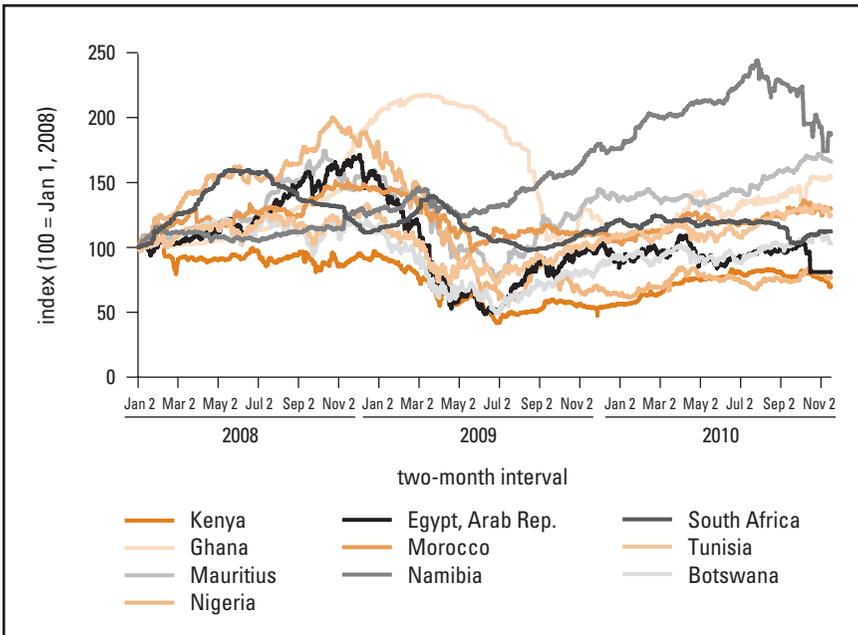
Initial hopes that investors, weary of the markets in developed countries, would seek opportunities in African and other developing economies were misplaced. The most immediate effect of the crisis was felt on stock markets throughout the region. The small size and illiquidity of Africa's stock markets were amplified rather than overlooked because local and international investors had become more cautious in their investment strategies. Thus, while the price-earnings ratios on many African stock markets were above comparators in mature markets in 2007, the fallout from the subprime mortgage crisis in the United States dampened investment plans significantly (figure 2.2). In 2008, the market turnover on the Uganda Bourse dropped 60 percent during the third quarter, the Nairobi Stock Exchange 20 share index in Kenya fell 31 percent, and the Johannesburg Stock

**Figure 2.1 Remittance Flows through the Crisis and Beyond, 2004–10**



Source: World Bank (2011a).

**Figure 2.2 Stock Market Performance through the Crisis, 2008–10**



Source: Bloomberg.

Exchange all-share index lost 22.6 percent in October, following a 14 percent decline in September, all in all a 42 percent decline since May the same year. African stock exchanges also experienced limited issues during the crisis, which further delayed market recovery. Box 2.1 summarizes the experience on some stock exchanges during the crisis.

This was disappointing. Until the recent crisis, African stock markets had been experiencing a resurgence and displaying an energy that had not been felt for years. Prior to 1989, there were only five stock markets in Sub-Saharan Africa, and only three in North Africa. By 2010, there were more than 20 stock exchanges, ranging from start-ups in Mozambique and Uganda to the well-established Lagos and Johannesburg stock exchanges. With the exception of South Africa, most African stock markets had doubled their market capitalization between 1992 and 2002, while total market capitalization for African markets had increased from US\$113.4 billion to US\$244.7 billion during those years. Ghana had five new equity listings in 2004; the initial public offering of Kenya Electricity Generating Company in 2006—the country's first in five years—attracted strong demand and enormous public interest. The 2008 initial public offering for the cell phone companies Safaricom and Celtel in Kenya and Zambia, respectively, had both been oversubscribed. This emerging confidence in African stock markets was negatively affected by the crisis.

### ***Real sector performance***

As the financial crisis surged into all parts of the real economy in developed countries, African countries experienced a substantial decline in exports when the rapid pace of trade expansion in the early 2000s decelerated sharply (figure 2.3). The sectoral and geographical concentration of exports in most African countries exacerbated the impact. Growth among Sub-Saharan African countries fell to 5 percent in 2010 compared with 6.6 percent over 2004–08 (IMF 2011). In countries where the fall in investments was coupled with a decline in export earnings, a slowdown in the growth of gross domestic product (GDP), and a sharp drop in domestic asset prices (for example, a local housing market correction), the result was weakened bank balance sheets and, in some cases, bank failures. Overall, the impact of the Great Recession varied with the economic structure of countries. Mauritius and South Africa, both middle-income countries and financial centers, suffered because of reductions in crossborder bank flows and because of their dependence on export markets in Europe. Meanwhile, Morocco was affected through a reduction in revenues that was observed mainly in the secondary and tertiary sectors, as well as through the luxury segment of the real estate market. Commodity exporters such as Gabon, Guinea-Bissau, and Zambia suffered because of the rapid decline in commodity prices. Finally, several countries—most prominently Nigeria—experienced domestic crises that were triggered by the exogenous shocks of the global crisis. In Nigeria, the crisis was initiated by a vicious cycle of capital outflows and commodity price drops that affected local investor sentiment and the appetite for

### Box 2.1 Performance on Selected Stock Markets during 2008–09

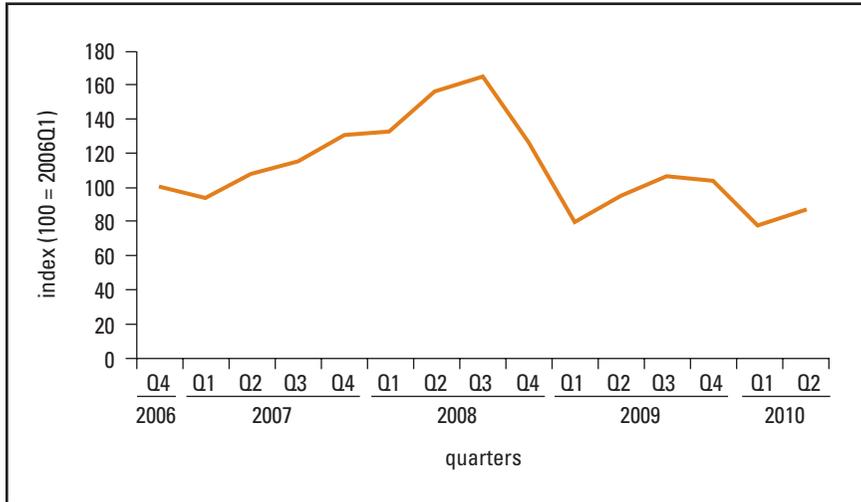
In *Nigeria*, the stock market witnessed a sharp decline beginning in March 2008, and the Nigeria all-share index lost more than 60 percent of its value. The correction (from high price-earnings ratios) was triggered, among other causes, by foreign investor withdrawal and led to margin calls and increases in the required collateral, precipitating additional declines. The decline in the Nigerian stock market was of particular concern to banks in Nigeria. Not only did it generate increases in the nonperforming loans of the banks, which had provided loans for stock purchases, but it also raised the cost of issuing new capital. (Banking shares accounted for over 60 percent of the total market capitalization.)

In *Kenya* between July 2008 and April 2009, the Nairobi Stock Exchange 20 share index fell 48 percent. To some extent, this reflected domestic factors, such as rising domestic political uncertainty following the postelection political turbulence in early 2008 and the third in a series of broker fraud scandals that reflected the underlying weaknesses in governance in the Kenyan capital market. Kenya's macroeconomic prospects were also heavily impacted by food and fuel price inflation in early 2008, which resulted in growing pressure on consumer prices. Some part of the fall in the Nairobi Stock Exchange index may also be ascribed to the Safaricom initial public offering in June 2008, which, although heavily oversubscribed at the time, drowned the market with a massive increase in equity supply at the moment sentiment was turning. As a result, the many small investors who had been attracted by the issue suffered sizable losses. Subsequently, the initial public offering by Co-operative Bank in November 2008 was 30 percent undersubscribed against a target of K Sh 6.7 billion.

In *Ghana*, the Ghana Stock Exchange all-share index, which had experienced an impressive 64 percent increase between January and October 2008, while stock markets around the world were collapsing, lost almost 46.6 percent during 2009, making it the world's most poorly performing stock market over this period. The effect of the financial crisis was exacerbated by the migration to a new automated trading system to which investors needed time to adjust and the rise in domestic interest rates, which made money market instruments more attractive. Domestic mutual funds were under pressure as investor redemptions could not be offset by sales in the illiquid equity markets; indeed, at least one fund had to borrow for redemptions.

In *Tunisia*, despite a 14 percent correction during the last quarter of 2008, the Bourse de Tunis Tunindex closed the year with a moderate 10.7 percent increase. Similarly, the Bourse de Tunis led African markets in 2009, closing the year with a 48 percent return on the Tunindex. Countercyclical measures taken by the government during the crisis helped sustain the performance of listed companies, which experienced a 10 percent rise in profits during the first semester of 2009. The confidence of investors was also strengthened by the implementation of a guarantee fund (*Fonds de Garantie de la Clientèle du Marché des Valeurs Mobilières et des Produits Financiers*), which covered noncommercial risks arising from the failure of financial intermediaries, as well as the enactment of a new code governing the provision of financial services to nonresident investors.

Sources: Data of the World Bank; data of the Ghana Stock Exchange; Bourse de Tunis (2010).

**Figure 2.3 African Exports through the Crisis and Beyond, 2006–10**

Source: Analytical Trade Tables (database), International Merchandise Trade Statistics Section, UN Statistics Division, New York, <http://unstats.un.org/unsd/trade/imts/analyticaltradedatables.htm>.

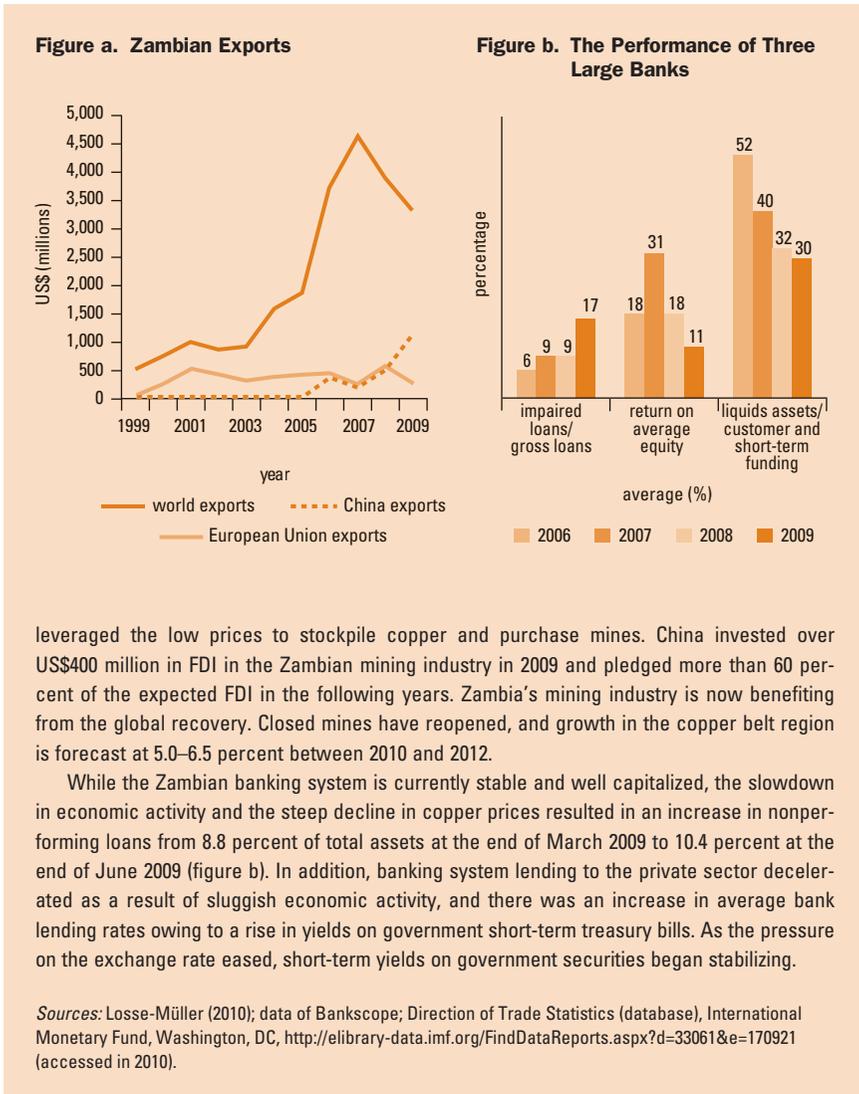
### Box 2.2 The Real Economy Impact of the Financial Crisis in Zambia

The Zambian economy was significantly impacted by the global crisis as a result of the sharp decline in copper prices, which, during the third and fourth quarters of 2008, fell by more than 60 percent relative to the peak in mid-2008. The mining sector, a mainstay of the Zambian economy, was hit hard by this decline. Mining accounts for some 70 percent of Zambia's foreign exchange earnings, and Zambia's revenue earnings from copper sales tumbled from US\$3.6 billion in 2008 to US\$2.9 billion in 2009, an 18 percent drop (figure a). Banks responded by cutting loans and advances to the private sector. Economic activity in communities dependent on mining stuttered; loan impairment increased; and bank liquidity and profitability declined. The slump in copper prices led to mine closures, which rendered thousands of people jobless.

The International Monetary Fund approved US\$256.4 million in financial support to Zambia during the second quarter of 2009. Despite a recovery in copper prices, economic growth was still slow in the aftermath of the crisis: the government revised the GDP growth estimate downward to 4.5 percent compared with the 5.0 percent projected at the beginning of 2009. During the first six months of 2009, the government received US\$339 million less in tax receipts and aid. The shortfall was offset largely by cuts in government expenditures to keep the fiscal deficit within the target of 3.1 percent of GDP for 2009.

At the peak of the recession, many western investors scaled back their presence in Zambia's copper belt. Their departure at the height of the recession saw the FDI of Chinese investors taking up the abandoned positions. At the height of the price slump, Chinese firms

**Box 2.2 The Real Economy Impact of the Financial Crisis in Zambia** (continued)



leveraged the low prices to stockpile copper and purchase mines. China invested over US\$400 million in FDI in the Zambian mining industry in 2009 and pledged more than 60 percent of the expected FDI in the following years. Zambia’s mining industry is now benefiting from the global recovery. Closed mines have reopened, and growth in the copper belt region is forecast at 5.0–6.5 percent between 2010 and 2012.

While the Zambian banking system is currently stable and well capitalized, the slowdown in economic activity and the steep decline in copper prices resulted in an increase in nonperforming loans from 8.8 percent of total assets at the end of March 2009 to 10.4 percent at the end of June 2009 (figure b). In addition, banking system lending to the private sector decelerated as a result of sluggish economic activity, and there was an increase in average bank lending rates owing to a rise in yields on government short-term treasury bills. As the pressure on the exchange rate eased, short-term yields on government securities began stabilizing.

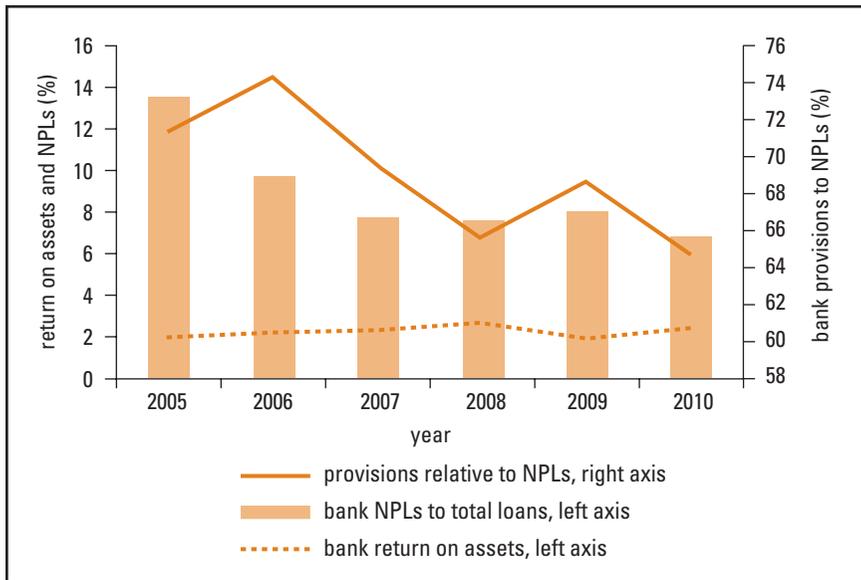
In this environment, large projects in Africa that required external financing to complement shorter-term bank financing faced difficulties in sourcing these finances, and, where they did find the resources, they faced higher interest rates

and short maturities because of the flight to safety and the greater risk aversion of lenders. At the same time, portfolio outflows exerted pressure for currency devaluations. Reductions in official development assistance, remittances, and tourism receipts also had an initial negative impact on the economy. As investments fell, some projects could not be completed, causing them to be unproductive and saddling bank balance sheets with nonperforming loans. Lower commodity prices, combined with a credit crunch and increased risk aversion, made the financing and development of capital investments more difficult.

**Private sector lending and loan portfolio performance**

An immediate concern at the time of the crisis was that banks would become excessively conservative in their policies and curtail the growth of private sector lending on the continent, especially long-term finance. To analyze the effect of the crisis at the microlevel, we consider bank balance sheets (figure 2.4). While the majority of banks on which we have data still expanded their loan books in 2009, one-fifth reduced their loan books, and some quite aggressively. Asset quality and profitability also do not seem to have been affected by the crisis, as shown by only a small uptick in nonperforming loans to 8 percent, high in international comparison, but low by historic comparison in Africa. A closer look at the group of banks that reported an increase in nonperforming loans reveals that most of them are located in Ghana

**Figure 2.4 Bank Stability in Africa, 2005–10**



Source: IMF (various).  
 Note: NPLs = nonperforming loans.

and Nigeria, two countries that suffered from domestic crises triggered by the global economic recession. The banking systems in Côte d'Ivoire, Democratic Republic of Congo, and Togo also suffered from systemic distress for longer periods; this was related to political turmoil and governance deficiencies in these countries. In most other countries, large increases were confined to individual banks, while the performance of other banks was better. (Here, we measure large increases as year-on-year increases in nonperforming loans by 150 basis points or more relative to gross loans.)

In the aftermath of the crisis, early indications, according to a World Bank study, are that fears of large increases in nonperforming loans were premature (see Losse-Müller 2010). More than half of the 152 African banks reviewed for the study data on credit quality reported stable or declining nonperforming loans.

So far, the performance is encouraging, especially because loans in Africa have relatively short maturities, and banks therefore register poor loan performance relatively rapidly. Also, the risk of portfolio deterioration was larger when GDP growth tapered off in 2009, and, provided growth holds up, the risk might not be that great anymore. However, this benign picture should not be misunderstood: the rapid pace of growth in the past might still entail a buildup of credit risks in the region's banking systems. In general, country experiences around the world highlight that rapid credit growth often challenges the ability of banks to manage risk and the supervisory capacity of regulators.

Where credit is still available, banks have increased the cost and shortened the tenor of finance. This is disappointing after recent years, when funds had started to enter African markets looking for equity and portfolio investments. Real private sector credit, in particular, has been growing at an accelerating rate, and its median value has doubled over the past decade. Even as a share of GDP, it has turned the corner; the median share approached 18 percent in 2007, about a third higher than at the anemic trough in 1996. Much of this increase was on the back of innovative noncollateralized lending practices. Salary and other cash flow-based lending have been emerging, with positive outcomes for customers in the form of consumer loans.

To their credit, banking systems across Africa entered the crisis equipped with low leverage, high levels of capitalization, and ample liquidity, putting them in good shape in the face of a potential worsening in credit performance as a result of the domestic and global economic downturns. Early indications are that credit growth picked up again throughout 2010 and that credit provision might be about to return to the previous high-growth path. Nonetheless, in African countries, as in other developing countries, policy makers must face a new reality: the times of cheap, easy money are over. This is true of private funds, but also of official funds. In the wake of severe budget cuts in most industrialized countries, foreign aid budgets are likely to be cut. This will put a higher premium on private funding, including commercial and private donor money. It will also put a premium on domestic financial intermediation and regional integration.

## Africa's Financial Systems in International Comparison

With the benefit of hindsight, one should not be surprised by the performance of Africa's financial sector through the crisis given the size of the sector, its lack of international and domestic integration, and the nature of the structural deficiencies that remained in financial systems even as they were achieving progress prior to the crisis. The recent global crisis mainly served to remind policy makers how vulnerable Africa is to shocks. While the absence of financial sophistication helped Africa reduce the contagion effects through financial market channels, it also prevented the financial sector from mitigating the impact of the shocks on the real economy. Policy design and development should therefore focus beyond the crisis and address these structural deficiencies.

A first step in the analysis of Africa's financial systems is an assessment and exploration of key statistics on the depth, breadth, efficiency, stability, and components of the systems. Such an analysis has to compare Africa with other regions, but also within a historical African perspective over the past, while focusing as much on similarities across the continent as on differences among countries within the continent. Critically, such an analysis has to benchmark Africa's financial systems by considering the low income level of most African economies and other country characteristics. Such an analysis is a first, though important step in better understanding Africa's financial systems. The remainder of this chapter thus sets the stage for the subsequent chapters, in which we look more closely at the challenges of the outreach, maturity structure, and stability of these financial systems.

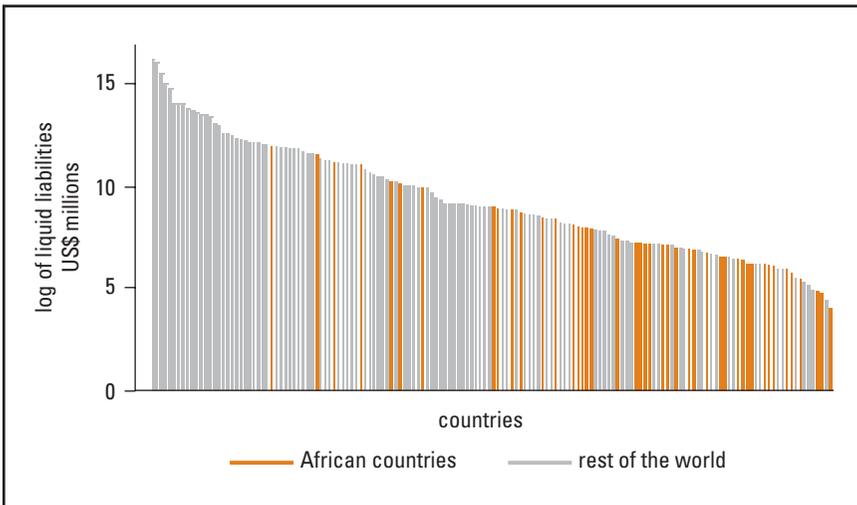
In the following, we use an array of indicators at the country, firm, and household levels to document the development of finance in Africa. We point to the overall low level of development, but also positive trends over the past 10 years. We highlight strengths, such as strong and stable banks, and weaknesses, such as limited nonbank financial service providers, and discuss the trend away from North-South toward South-South capital flows. Africa's financial systems are based heavily on banks, and banks are therefore a large emphasis in the following. However, we also discuss other segments of these financial systems, including capital markets and contractual savings institutions, such as insurance companies and pension funds.

Relative to Honohan and Beck (2007), we have a much richer set of data sources we can use to assess quantitatively the development, efficiency, and outreach of financial systems in Africa. In addition to broad cross-country databases on the development and structure of financial systems (Beck, Demirgüç-Kunt, and Levine 2010), this publication uses much better cross-country data on the access to financial services by households and firms (CGAP and World Bank 2010), financial infrastructure (World Bank 2008b; World Bank and IFC, various; and so on), and remittance prices across corridors. In addition, we have available a detailed Africa-specific database on financial structure and the regulatory framework that contains data on 46 of the 53 countries on the continent.

### *The size of African banking systems*

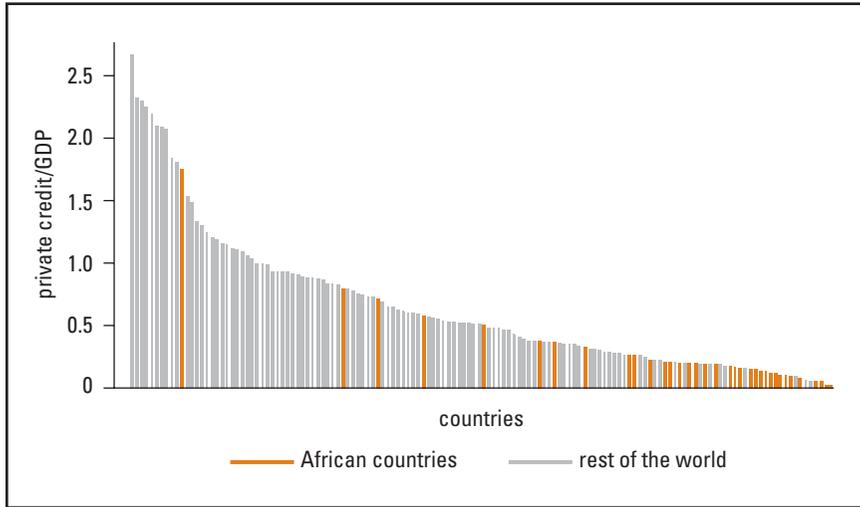
Standard indicators of banking system development show that Africa's banking systems are small in absolute and relative size. Many African banking systems would be mid-sized banks in high-income countries. Using a sample of banks included in Bankscope, which typically covers 90 percent of a country's banking system, we find that the average African bank has total assets of US\$220 million, while the total balance sheet size of a non-African bank is, on average, almost US\$1 billion. Behind this average, however, is a large variation. Standard Bank of South Africa has total assets of over US\$100 billion, while the average bank in Madagascar has assets below US\$200 million. Figure 2.5 shows the log of liquid liabilities—currency, plus demand and the interest-bearing liabilities of banks and nonbank financial intermediaries—in U.S. dollars. Most African banking systems are toward the right of the scale, with the notable exception of banking systems in Algeria, the Arab Republic of Egypt, Morocco, and South Africa, which are relatively large. If measured in relative size based on the claims on the private domestic nonfinancial sector relative to GDP (private credit), for example, we find that most African financial systems have relatively small banking sectors (figure 2.6). While the median for African countries was 19 percent in 2009, it was 49 percent for non-African developing countries. Behind this median, however, is significant variation across Africa. While private credit to GDP is less than 3 percent in Chad, it is over 70 percent in Mauritius, Morocco, and South Africa. The North African subregion shows the

**Figure 2.5 Absolute Size of African Banking Systems, 2009**



Source: Beck, Demirgüç-Kunt, and Levine (2010).

Note: Sample size: 154 countries. The highest African values are for Algeria, the Arab Republic of Egypt, Morocco, and South Africa.

**Figure 2.6** Relative Size of African Banking Systems, 2009

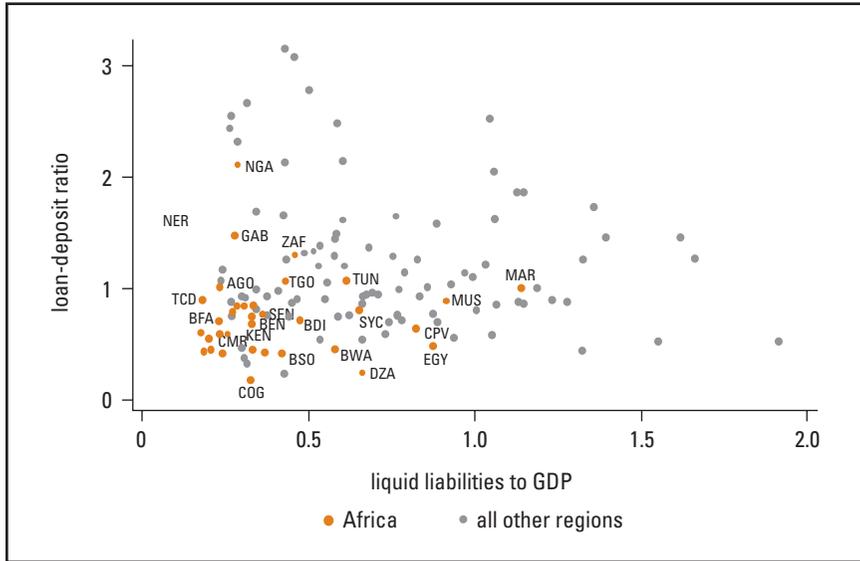
Source: Beck, Demirgüç-Kunt, and Levine (2010).

Note: Sample size: 140 countries. The highest African values are for Mauritius, Morocco, South Africa, and Tunisia.

highest levels of financial development, a median of 48 percent, which is at the same level as non-African developing countries, while Central Africa and West Africa show the lowest level, with a median of 16 percent.

African banking systems are not only small, but also characterized by low intermediation. One simple method of gauging intermediation efficiency is the loan-deposit ratio. Banks have funding sources other than deposits and other purposes besides lending to the private sector, but the loan-deposit ratio gives a good, though crude indication of intermediation efficiency. The loan-deposit ratio ultimately captures one of the core tasks of financial intermediaries, that is, putting society's savings to its best use: private sector development. We see that African banking systems intermediate, on average, only 74 percent of their deposits, while banks in non-African developing countries intermediate 109 percent of their deposits. As pointed out by Honohan and Beck (2007), countries in Africa showing lower levels of deposits intermediate an even lower share of these scarce deposit resources into private sector loans. While in the Republic of Congo the ratio of liquid liabilities to GDP is 33 percent and the loan-deposit ratio is 17 percent, the corresponding ratios in Tunisia are 62 and 107 percent, respectively (figure 2.7). It seems that, for most banking systems in Africa, especially in Sub-Saharan Africa, the resource constraint is not currently binding; yet, these systems suffer from an intermediation constraint.

The low intermediation ratios point to a critical problem in African banking: while the lack of resources might be a longer-term impediment to the economic

**Figure 2.7 Intermediation Efficiency Versus Financial Depth, 2009**

Source: Beck, Demirgüç-Kunt, and Levine (2010).

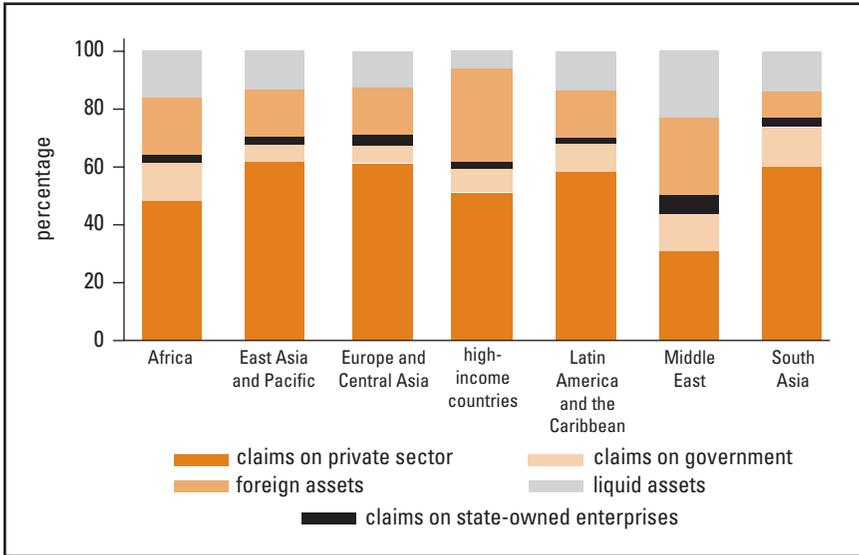
Note: Sample size: 133 countries. For a complete listing of 3-letter country codes and the respective country names, see pages xvi–xvii.

growth of the continent, a more immediate problem is the fact that existing resources are not intermediated efficiently into the private sector, where they are needed most. This is consistent with the observation across the African region that banks prefer to invest in government securities rather than private sector loans and that the credit channel of monetary policy only functions weakly. Banks react little to the changes in interest rates set by monetary authorities by lending more or less to the private sector, but, rather, they shift assets among government bonds and foreign asset holdings.

The relatively limited intermediation efficiency is confirmed if one digs deeper into the asset side of bank balance sheets to explore where banks invest their resources. Figure 2.8 shows the asset composition of banks across different regions. Unlike banks in other regions of the world and banks in high-income countries, African banks hold a much smaller share of their assets in private sector loans and a much larger share in government securities, foreign assets, and liquid assets.

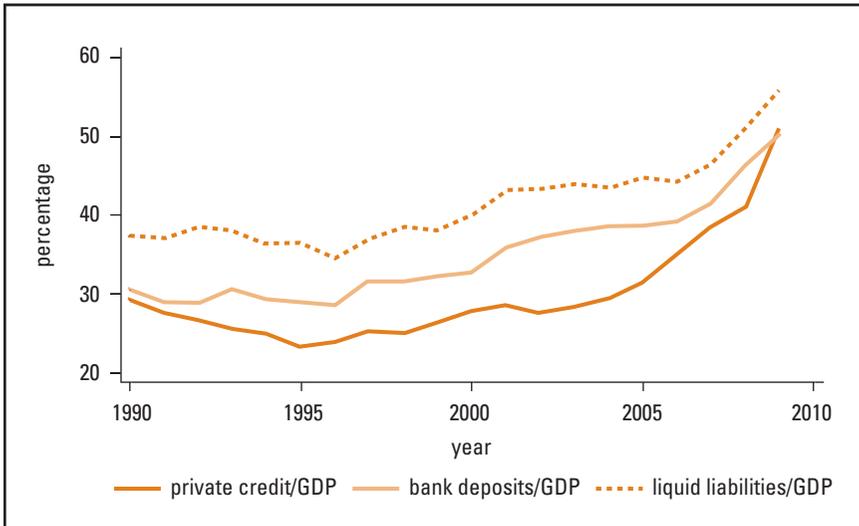
There were significant improvements across African financial systems in the years leading to the global crisis. There was a persistent increase in the ratios of liquid liabilities to GDP, bank deposits to GDP, and private credit to GDP that were not driven by individual countries, but that occurred throughout the region (figure 2.9). In the years leading up to the global crisis, 75 percent of all countries experienced financial deepening. Africa's banking systems now also intermediate a larger

**Figure 2.8 Asset Composition of Banks across Regions, 2009**



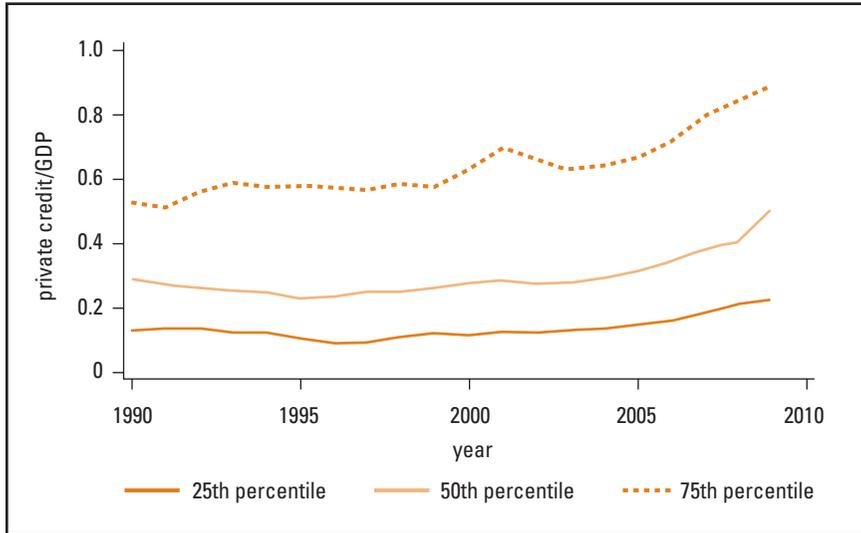
Source: International Financial Statistics (database), International Monetary Fund, Washington, DC, <http://elibrary-data.imf.org/FindDataReports.aspx?d=33061&e=169393> (accessed in 2010).

**Figure 2.9 Financial Deepening across Africa, 1990–2009**



Source: Beck, Demirgüç-Kunt, and Levine (2010).

Note: Sample size: 25 countries. The number of countries indicated represents the situation following the balancing of the data set.

**Figure 2.10 Private Credit across Africa, 1990–2009**

Source: Beck, Demirgüç-Kunt, and Levine (2010).

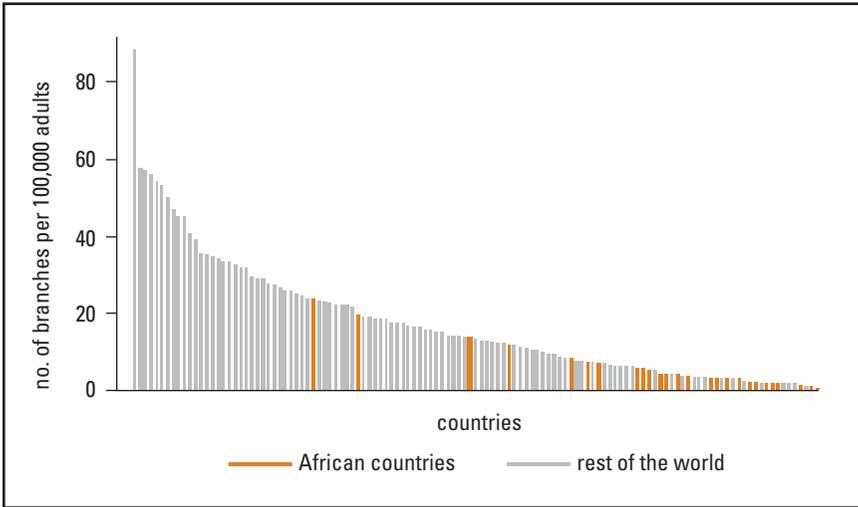
share of deposits into loans. This has led to a broad increase in the ratio of private credit to GDP across the continent (figure 2.10).

### ***Banking outreach and maturity structure***

African banking systems lack not only depth, but also breadth. In the absence of reliable indicators of the share of households that use bank accounts across a large number of countries, we have used proxy indicators to gauge the outreach of banking systems. The number of branches per capita shows the limited outreach of African banking systems compared with systems in other regions (figure 2.11). While Benin has less than one branch per 100,000 people, Bolivia has almost seven. While Egypt has four branches per 100,000 adults, Malaysia has 11. Data on the penetration of automated teller machines and point-of-sale systems shows a similar picture. While Morocco has nine automated teller machines per 100,000 adults, Malaysia has 47.5.

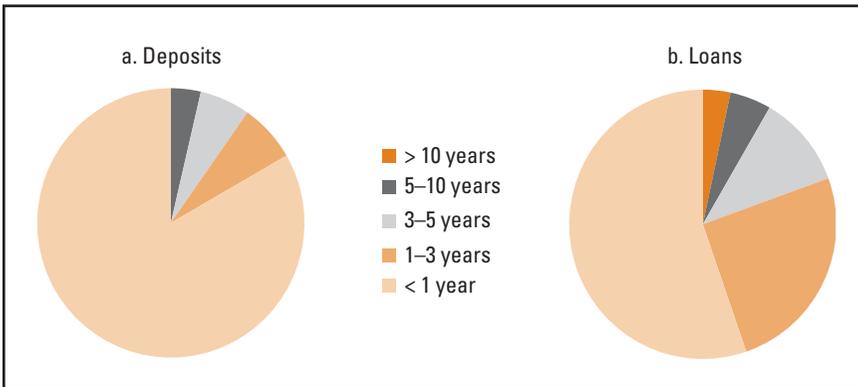
African banking is mostly short term, as evidenced by the maturity structure on the asset and liability sides of bank balance sheets. More than 80 percent of deposits are sight deposits or are deposits with a maturity of less than one year; less than 2 percent of deposits have a maturity of more than 10 years (figure 2.12, chart a). The maturity distribution is not as extreme on the loan side, though it is biased toward the short end. Almost 60 percent of loans are for less than one year, and less than 2 percent of loans are for more than 10 years (figure 2.12, chart b). This maturity structure of African banks is consistent with the low level of financial develop-

**Figure 2.11 Branch Penetration across Countries, 2009**



Source: CGAP and World Bank (2010).  
 Note: Sample size: 123 countries.

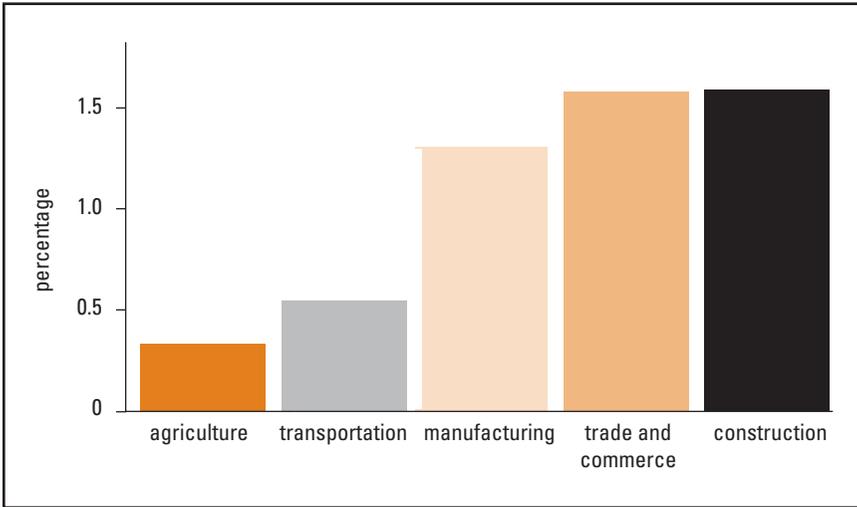
**Figure 2.12 The Maturity Structure of Deposits and Loans across Africa, 2005–09**



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

ment in the countries and the focus of African financial systems on transaction services and short-term finance. It is also consistent with a banking system that focuses on Finance for Market services rather than Finance for Growth services.

African banks do not extend loans equally across sectors. This is not surprising because different economic sectors have different needs for external finance. Even

**Figure 2.13 Sectoral Lending Share Relative to GDP Share, 2005–09**

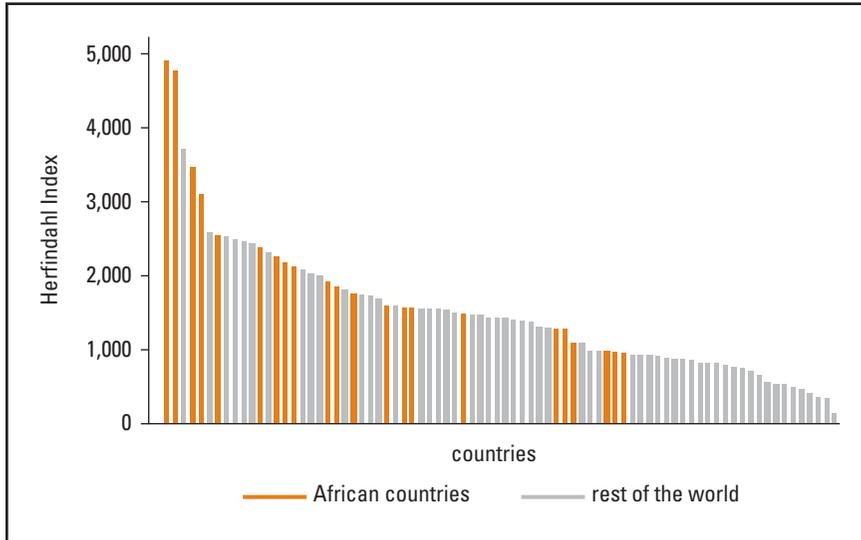
Source: Making Finance Work for Africa (database), Partnership Secretariat, African Development Bank, Tunis, <http://www.mfw4a.org/>.

within specific sectors, different industries have different financing needs, as documented by Rajan and Zingales (1998) for Canada and the United States. That a specific sector gets less than its “fair” share of bank loans, that is, a lower share in lending than in GDP, may thus be driven as much by lack of demand as by supply constraints.

Figure 2.13 provides interesting insights in that it confirms the anecdotal evidence: the agricultural sector is significantly underrepresented in bank loan books, as is the transportation sector. (We return to the issue of agricultural and, more broadly, rural finance in chapter 3.) The relatively low amount of lending to the transportation sector is somewhat more surprising because one would expect this sector to be able to use its assets as collateral more easily. Manufacturing, trade and commerce, and construction, in contrast, are overrepresented on the loan books of African banks. It is important to stress that the objective is not an equal representation of all economic sectors in bank loan portfolios and in GDP, but these stark discrepancies indicate that more than inherent demand or financing needs are at play in the allocation of loan resources across sectors in Africa.

### ***Concentration and competition***

Consistent with their small size, Africa’s banking systems are mostly concentrated, and few banks share the small universe of clients. Figure 2.14 presents the Herfindahl index, which is the sum of the squares of market shares; higher numbers thus indicate a more concentrated banking system.<sup>3</sup> Of the countries with a Herfindahl index above 2,000, 50 percent are in Africa, while only a fifth of the countries with

**Figure 2.14 Banking Sector Concentration across Countries, 2006**

Source: Beck, De Jonghe, and Schepens (2011).

Note: Sample size: 80 countries. HHI index = the Hirschmann-Herfindahl index of the concentration of total assets.

a Herfindahl index below 2,000 are in Africa. The high concentration of African banking systems is also captured by cruder measures such as CR3 concentration measures, that is, the market share of the largest three banks, which, on average, stands at 68 percent. Behind this average is a large cross-country variation. While the CR3 concentration ratio is well below 50 percent in larger financial systems, such as Kenya, Nigeria, and South Africa, it is above 85 percent in Algeria, Angola, Malawi, Mauritius, and Sudan. This concentration can be related to the absolute and relative size of African banking systems. The fixed cost element in banking limits the possibility for a large number of players in markets with a low deposit and lending volume and, accordingly, a small potential customer base for spreading the costs. Similarly, the low income level and limited depth of African financial systems constrain the space for a large number of banks in the banking systems. In recent years, there has been a trend toward consolidation in some banking markets, as regulatory authorities have increased minimum capital requirements. Box 2.3 examines the experience of Nigeria.

Concentration, however, is not the same as competition: even oligopolistic markets can show a certain degree of competitiveness.<sup>4</sup> However, consideration of an indicator of competition provides a similar picture. A comparison across countries of the Lerner index—the ratio of the difference between the market price and the marginal cost of financial services to marginal cost—shows that this indicator of the market power of banks is significantly higher in African countries than in other

### Box 2.3 Bank Consolidation: Learning from the Nigerian Experience

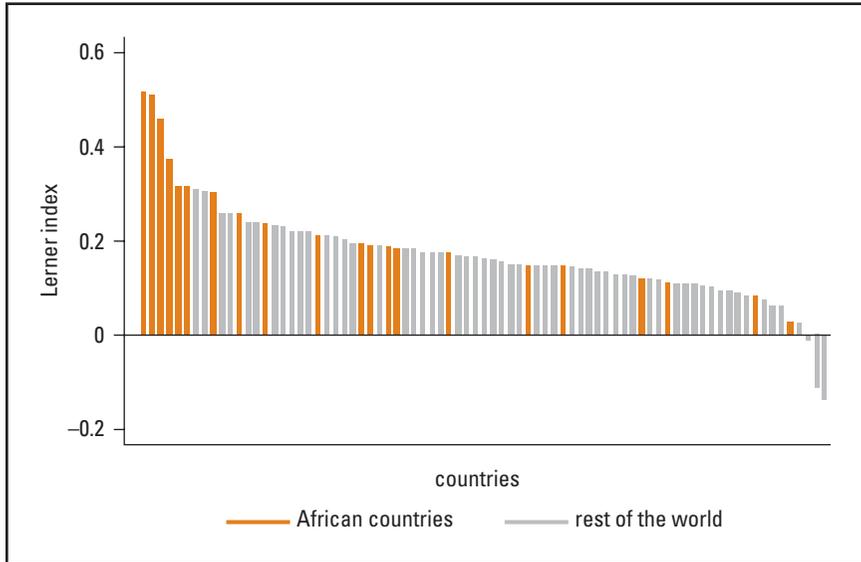
The debate on market structure, competition, bank size, and stability has not been settled; rather, it has been reignited by the current global crisis. In the African context, the Nigerian experience provides interesting insights. Before the crisis, the Nigerian banking sector was characterized by a large number of small banks, which taxed supervisory capabilities, and this fragmentation, in turn, coincided with instability. Against this backdrop, the governor of the Central Bank of Nigeria announced, on July 6, 2004, that banks would be required to achieve a minimum capital level of ₦ 25 billion (US\$200 million), up from ₦ 2 billion (US\$15 million), by December 31, 2005. The increase was intended to help bring about a diversified, stable financial sector that would ensure the safety of deposits, while contributing more to economic development via intermediation. The larger banks were also expected to compete more effectively in regional and global financial systems.

The consolidation occurred along different paths. The largest traditional banks achieved the capital threshold more or less on their own, while other, mostly younger, banks used the consolidation process to make an exponential jump in capitalization often via share issues. The rest of the banks achieved the capital threshold by forming groups. A small number of foreign-owned institutions relied on capital injections from their parent banks, if necessary, to meet the new standard. A careful comparison of these banks (or groups) before and after the consolidation process shows some improvement in cost-efficiency, but no reduction in spreads, suggesting a possible decrease in competitiveness. There was an increase in loans, partly to customers of the banks who used the loans to finance share purchases. There was also regional expansion among Nigerian banks.

The boom ended in a bust, a rather typical end to a financial reform and liberalization episode without the corresponding regulatory upgrade to sustain and monitor bank growth, coordinate among regulators, and ensure proper enforcement. The Nigerian experience also highlights the importance of appropriate corporate governance in terms of regulation and enforcement at the level of the banks and the supervisory authorities. As stated by Dr. Sanusi, the governor of the central bank, "consolidation created bigger banks but failed to overcome the fundamental weaknesses in corporate governance in many of these banks." As a result of special inspections carried out by the central bank in mid-2009, the extent of the buildup of risk and the inaccuracies in financial reporting in the banking system became apparent. Interventions were conducted in nine banks, which were rescued (some through convertible loans) by the central bank; the central bank simultaneously moved to guarantee all interbank transactions and replace senior management and executive directors. These banks not only depleted their capital, but, together, accounted for additional losses estimated at over US\$9 billion. There was a flight toward secure assets, including government securities, although there is little evidence that there was a full-fledged credit squeeze. While contemporaneous with the global financial crisis, the Nigerian crisis was homemade, though the global crisis, with the subsequent drop in stock market indexes throughout the world, might have accelerated the onset of the crisis in Nigeria.

The Nigerian experience underlines that rapid changes in market structure have to be carefully monitored and accompanied by the necessary regulatory and supervisory upgrades, as well as proper corporate governance structures. It also drives home the point that consolidation can lead to the too-big-to-fail phenomenon (see the discussion in chapter 5). Through regional expansion, this can have repercussions beyond borders.

Sources: Cull and Trandafir (2010a); World Bank (2010b).

**Figure 2.15 Banks' Market Power across Countries, 2006**

Source: Beck, De Jonghe, and Schepens (2011).

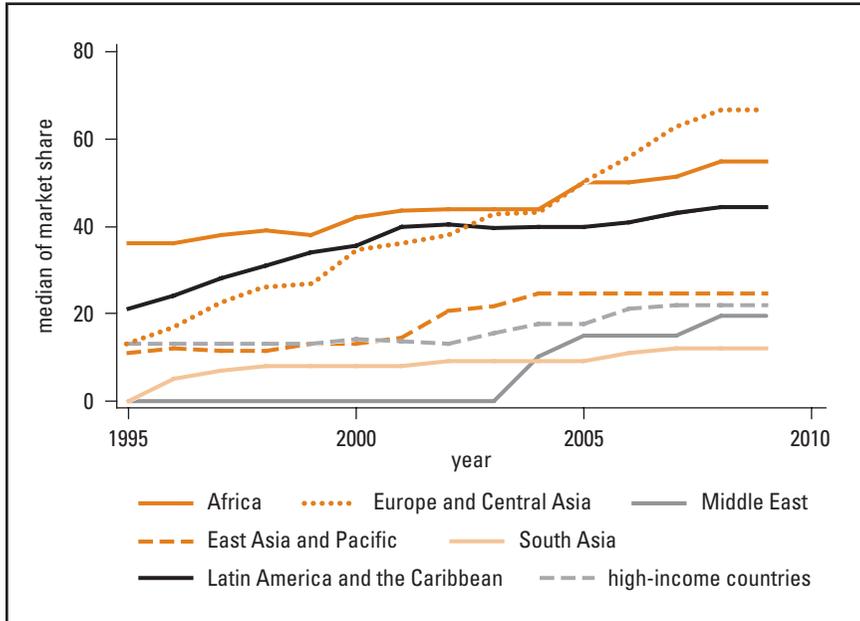
Note: Sample size: 80 countries. The Lerner index is the relative markup of price over marginal cost.

regions. The six countries with the highest markup are all in Africa (figure 2.15).<sup>5</sup> The lack of competition is not only a concern in itself, but has direct negative repercussions for the depth and breadth of financial systems. Higher market power results in higher interest rate spreads and, ultimately, lower levels of bank lending.

The concentration ratios and competition indexes discussed so far consider a country's banking system as one banking market and do not take into account the differences between deposit and lending markets or among different segments within the lending market. Though not captured in such data, anecdotal evidence suggests that deposit markets are typically more competitive than lending markets and that, within lending markets, the blue-chip segment of large domestic and multinational corporations is significantly more competitive than the small and medium enterprise segment. This segmentation of the banking market also has implications for competition across banks, a topic to which we return elsewhere below.

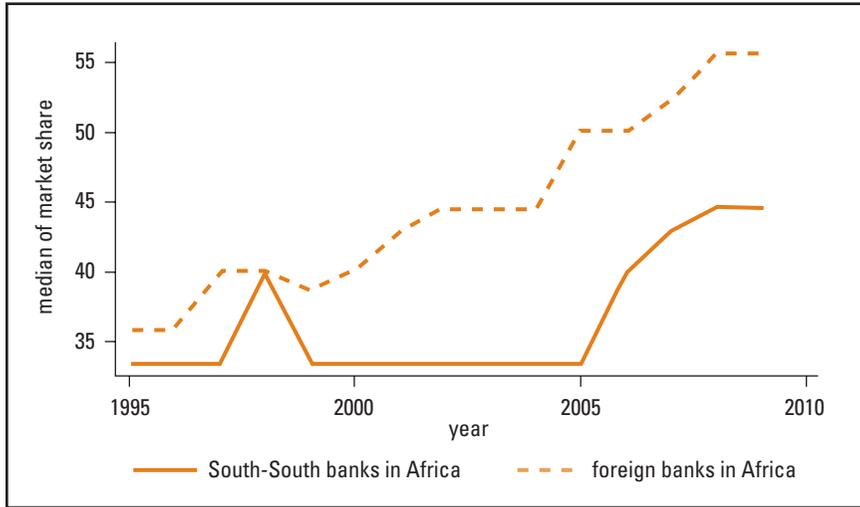
### ***Increasing integration***

Africa's banking systems are small, concentrated, and mostly foreign owned. This last has not always been a characteristic. Rather, the ownership structure has undergone significant changes over the past 50 years since independence. At the time of independence, Africa's banking systems were mostly dominated by colonial banks, many of which were subsequently nationalized (or "Africanized," though the re-

**Figure 2.16 Foreign Bank Shares across Regions, 1995–2009**

Source: Claessens et al. (2010).

sult—state ownership—was often the same). Structural adjustment and privatization programs in the 1980s saw a return to private ownership among many of these banks, sometimes in favor of the same European banks that had once been the proprietors. Now, Africa is the region with the highest share of foreign-owned banks (figure 2.16), with the exception of the transition economies of Europe and Central Asia. The last 10 to 15 years saw yet another new trend: the transition from international to regional banks (figure 2.17). After the end of Apartheid, several South African banks, most notably Absa and Standard Bank, started expanding throughout the continent. More recently, two West African banks—Bank of Africa and Eco-bank—have started expanding throughout Sub-Saharan Africa. Similarly, Moroccan banks started to expand south. Finally and as consequence of the recent consolidation wave in Nigeria, Nigerian banks started expanding throughout West Africa, but increasingly also throughout the rest of the continent (see box 2.3). In addition to an increase in foreign bank ownership, there has thus been a marked increase in the share of regional, that is, African, banks among foreign banks, reaching 45 percent in the median country in 2009, while, in the mid-1990s, such banks had constituted only around a third of all foreign banks and less than 15 percent of total banking assets in the median African country. It is important to note that most international and regional banks have expanded throughout the region in the form

**Figure 2.17 Foreign Bank Ownership across the Continent, 1995–2009**

Source: Claessens et al. (2010).

of subsidiaries, which implies higher costs, but can have positive repercussions for supervisors in case of trouble because subsidiaries are somewhat easier than branches (though not perfectly) to ring-fence. We return to this topic in chapter 5.

What has been the effect of the increase in foreign bank ownership on the development, efficiency, stability, and outreach of African banking?<sup>6</sup> Foreign bank entry seems to have several advantages that are specific to Africa: international banks can help foster governance; they can bring in much-needed technology and experience from other regional economies that should translate into increased efficiency in financial intermediation (in the case of South African or West African banks); and they can help exploit scale economies in small host countries. Nonetheless, especially in Africa, with its many small, risky, and opaque enterprises, the dark side of foreign bank entry can become obvious, even more so in countries in which foreign banks have captured almost 100 percent of the banking market. Specifically, the greater reliance of foreign banks on hard information about borrowers as opposed to soft information can have negative repercussions for riskier and more opaque borrowers if foreign banks crowd out domestic banks (for example, see Gormley 2007; Sengupta 2007; Detragiache, Tressel, and Gupta 2008). In addition, there are many factors that can prevent countries from reaping the potential benefits of foreign bank ownership. The presence of dominant government-owned banks can reduce competitive pressures and allow other banks—be they domestic or foreign owned—to earn rents from the inefficiency of government-owned banks, as the example of Kenya in the early 2000s shows. The absence of a sound contractual and informational framework reduces the feasibility of small business lending further. The small size of many financial markets in Sub-Saharan Africa

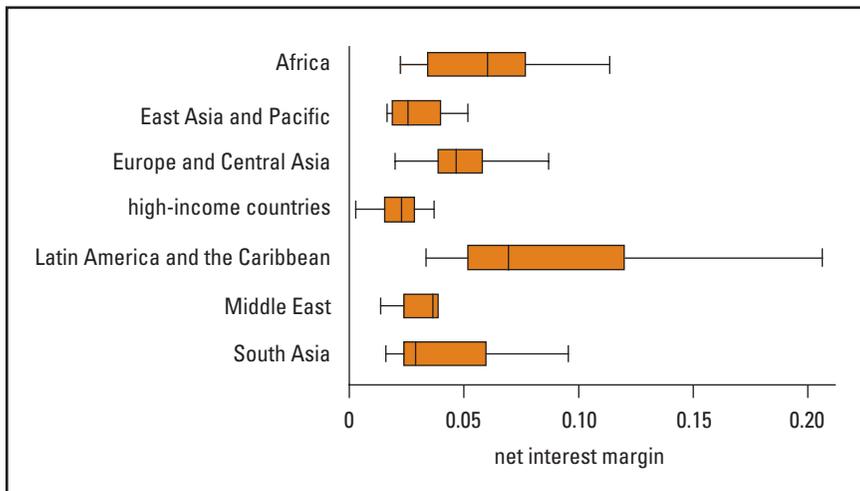
may make foreign banks reluctant to incur the fixed costs of introducing new products and technologies. The small size of many markets also does not allow for the necessary competitive pressure. The result in many African countries has been the concentration of domestic and foreign bank portfolios on government paper and international assets (see above). However, the diversity among the international banks in Africa suggests that there are differential and context-specific variations in the effects. This diversity is reflected in the finding of Čihák and Podpiera (2005) that foreign banks in Tanzania and Uganda lend more and charge lower spreads than domestic banks, while foreign banks in Kenya lend less than their domestic counterparts. This might reflect differences in policies. (The effect of bank market and ownership structure on the depth, outreach, and stability of African banking systems is discussed in more depth in the following three chapters.)

### *Interest rate spreads and margins*

One striking characteristic of banking in Africa is the high interest rate spreads and margins (figure 2.18). True, Africa is not the only region with costly financial intermediation: several Latin American countries also exhibit high spreads. Yet, persistently high margins have been among the top concerns raised by policy makers throughout the region, and closer analysis is certainly warranted. As we argue in the following, these high spreads and margins are mostly caused by the small scale of most African financial systems and the great risks banks still face in most countries.

High interest rate spreads can be seen simply as the complement of shallow financial systems with little depth and breadth, given that countries with more de-

**Figure 2.18 Interest Rate Margins across Regions, 2009**



Source: Beck, Demirgüç-Kunt, and Levine (2010).

Note: Sample size: 134 countries. The figure shows the minimum, maximum, and median of the net interest margin. The shaded boxes indicate the interquartile range. Outliers have been omitted (the highest fifth percentile).

**Table 2.1 Decomposition of Weighted Average Spreads, All Banks, Uganda, 2005–08**

Indicator	2005Q4	2006Q4	2007Q4	2008Q2
Average lending rate	14.66	15.17	15.31	16.72
Average deposit rate	1.57	1.70	2.00	1.97
Spread	13.09	13.48	13.31	14.75
Overhead costs	4.77	4.09	3.47	4.66
Loan-loss provisions	1.17	0.74	1.67	0.72
Reserve requirements	0.17	0.19	0.22	0.22
Taxes	2.01	1.85	1.51	2.51
Profit margin	4.97	6.61	6.44	6.65

Source: Cull and Trandafir (2010b).

veloped financial systems exhibit lower net interest margins. There is one important caveat concerning the interpretation of high spreads in cross-country variation and in within-country variation over time in relation to the outreach of the financial system: higher spreads might indicate the inefficiencies discussed above, but also greater outreach to riskier clients who are more costly for banks.

There are two different ways to analyze spreads and margins: one is to undertake a decomposition of spreads into components; the other is to analyze the relevant underlying bank-, industry, and country-level traits. Another important distinction that is more than semantic is the distinction between spreads and margins, whereby the former refers to the difference between *ex ante* lending and the deposit rate, while the latter refers to the actual net interest revenue. This is an important distinction on the lending side; the main difference is the lost interest revenue because of loan losses, as well as possible timing issues (that is, the contracted lending rates that affect interest revenues in subsequent periods). While net interest margins are readily available on a consistent cross-country basis, interest rate spread data are much more difficult to find and are mostly inconsistent across countries. We therefore focus on a specific country, Uganda, where detailed data are available across banks and over time for lending and deposit rates at different maturities. Analysis on other African countries has, however, provided similar findings.

The data in table 2.1 illustrate persistently high interest rate spreads, with not only (in real terms) low deposit rates, but also high average lending interest rates. High operating costs are one important factor, while loan loss provisions reflecting loan losses and reserve requirements are rather minor components of the interest rate spread. Perhaps most striking is the high share that profits (and the taxes on profits) constitute in the interest rate spreads. High profits driving high interest rate spreads are, however, consistent with the significant market power of banks in Africa that is documented above. They are also consistent with a high risk premium on banking in Africa that even applies to relatively stable economies such as Uganda. Finally, high profit rates might also be explained—at least in the case of subsidiaries of large multinational banks—by the relatively small scale of opera-

tions, which might result in an absolute rather than relative profit target for these subsidiaries.

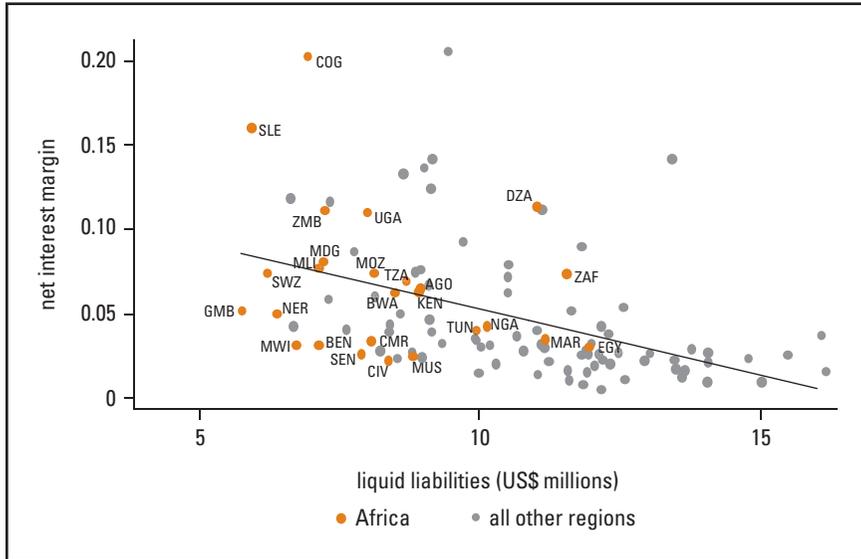
A second approach is to relate bank-level variations in net interest margins to differences in bank characteristics, such as size, liquidity, and ownership, to industry-level variations in market and ownership structure, and to country characteristics such as the institutional framework and the level of economic development. Table 2.2 shows some of the factors; the data refer to the period 2000 to 2007 (thus, before the onset of the global financial crisis). Estimations of the bank- and country-level factors associated with bank-level variation in overhead costs and computation of the contribution that each of these factors makes to the higher margins and costs in Africa compared with the rest of the world point to size and risk as two of the dominant factors. The small size of African banks can explain 42 basis points of the difference in the overhead costs between African banks and rest of the world banks and 20 basis points of the difference in net interest margins. The deficient contractual framework explains 55 basis points of the overhead costs and 95 basis points of the net interest margins in Africa compared with the rest of the world. Finally, still higher inflation in Africa compared with the rest of the world explains 24 basis points of the higher overhead costs and 23 basis points of the higher net interest margins. Other differences between African and non-African banks can also explain the differences in margins and spreads. The higher capitalization of African banks—a topic to which we return in chapter 5—is positively associated with overhead costs and margins, while the stronger reliance of African banks on (relatively) cheaper sight deposits shave off a few basis points from operating costs and margins. Finally, the higher volatility of banking in Africa (as measured by the variation in the return on assets over the period 2000 to 2007) increases overhead costs and margins, while the higher fee income in Africa raises operating costs and decreases margins.

The variables discussed above are certainly not the only factors influencing margins and overhead costs and might proxy for other important characteristics of financial systems and economies in Africa. Behind the small size of African banks is

**Table 2.2 Explaining the Interest Margins and Overhead Costs in Africa**

Indicator	Interest margin	Overhead costs
African banks	482	500
Rest of world banks	334	332
Difference	148	168
Contractual framework	95	55
Bank size	20	42
Other bank characteristics	-12	31
Inflation	23	24
Africa residual	23	16

Source: Author calculations using data of Bankscope.

**Figure 2.19 Small Scale Comes with High Margins, 2009**

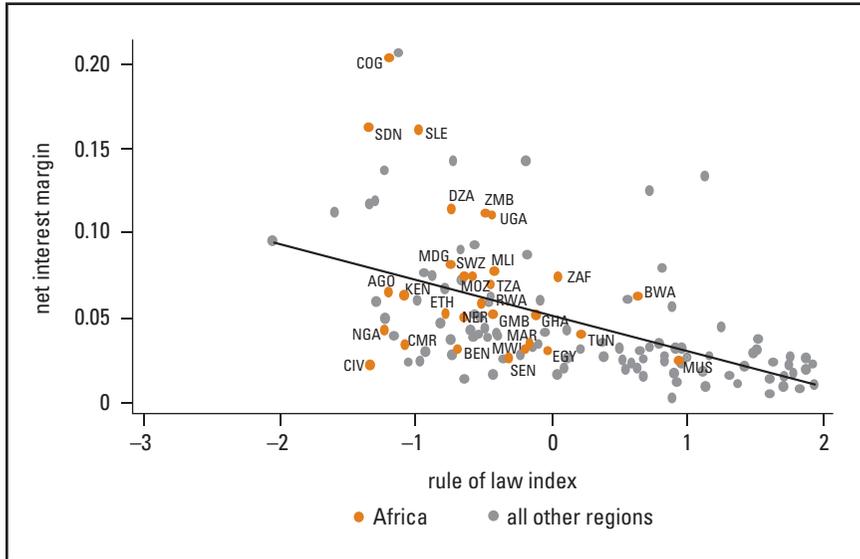
Source: Beck, Demirgüç-Kunt, and Levine (2010).

Note: Sample size: 178 countries. Liquid liabilities are taken in log scale. For a complete listing of 3-letter country codes and the respective country names, see pages xvi–xvii.

the high degree of informality, which results in a small base of potential clientele. The deficient contractual framework is a symptom of larger challenges in the governance agenda of African economies. The high volatility in bank profits reflects the high volatility of African economies. The positive Africa residual might be related to the lack of competitiveness documented above.

Behind these averages are important differences across financial systems within Africa. However, the same factors that explain the differences between the averages in Africa and the averages outside Africa can also explain the differences within Africa. The important roles of scale and the contractual framework are illustrated as examples in figures 2.19 and 2.20 on the aggregate level. The negative relationships between the contractual framework and banking system size, on the one hand, and between net interest margins, on the other hand, hold not only for broad cross-sectional samples of countries, but also within the African continent. The higher efficiency of the contractual framework—here measured by an aggregate meta-indicator of the rule of law (Kaufman, Kraay and Mastruzzi, 2009)—is associated with lower interest margins, as are larger financial systems, as measured by liquid liabilities in U.S. dollars. Net interest rate margins are lower in Mauritius than in Angola partly because of the more effective contractual framework in Mauritius. Similarly, net interest margins are lower in Egypt than in Mali partly as a result of the larger scale of banking in Egypt.

**Figure 2.20 Low Governance Comes with High Margins, 2009**



Source: Beck, Demirgüç-Kunt, and Levine (2010); Kaufman, Kraay, and Mastruzzi (2009).  
 Note: Sample size: 213 countries. For a complete listing of 3-letter country codes and the respective country names, see pages xvi–xvii.

Interest rate spread analysis of a specific banking market also facilitates a deeper analysis of the competition within a system. The analysis of the spreads in the Ugandan banking market provides evidence of segmentation among banks of different ownership (Cull and Trandafir 2010b).

In Uganda, domestic banks show much higher spreads because of the higher lending rates, which most likely reflect a riskier loan portfolio. The comparison between domestic and foreign banks across the different components of the spread shows, however, even more interesting differences. The spread decompositions indicate that domestic banks generate high profit margins from a group of borrowers who repay their loans at a rate that is higher than the rate on the loans of clients of foreign banks. One would expect foreign banks to compete for this clientele, exerting downward pressure on these spreads and profit margins, and, yet, the decomposition of the interest spreads of foreign banks shown in table 2.3 suggests that these banks deal with a different segment of the market. The overhead costs of foreign banks are substantially higher than those of domestic banks (6.0 versus 2.5 percent), and, yet, their spreads are much lower. The relatively high overhead costs and low profit margins for the foreign banks may be consistent with the idea that they deal with a set of blue-chip clients whose projects are more costly to evaluate and maintain. In addition, higher wage costs might add to the costs of the foreign banks, though the higher costs might also result from the propensity of foreign

**Table 2.3 Interest Spreads in Uganda: Domestic Versus Foreign, 2008**

Indicator	Domestic	Foreign
Average lending rate	18.44	15.24
Average deposit rate	2.31	1.90
Spread	16.13	13.34
Overhead costs	2.74	6.22
Loan-loss provisions	0.38	1.01
Reserve requirement	0.26	0.21
Taxes	3.34	1.64
Profit margin	9.42	4.26

Source: Cull and Trandafir (2010b).

banks to invest more, including in information technology and technology to develop new products. Over time, these overhead costs might decrease as economies of scale are achieved and may translate into higher profit margins. Two tentative conclusions from the simple decomposition exercise are that (1) there is little competitive pressure in the Ugandan banking sector, which is reflected in the persistence of the high interest rate spreads and their determinants, and (2) there is market segmentation between foreign and domestic banks, which is reflected in the different spread levels and the determinants of these spreads.

### ***Looking beyond banking***

The nonbank segments of Africa's financial systems show an even lower degree of development than banking. This is consistent with the bank-based character of Africa's financial systems.

Only 21 of the 53 African countries have stock markets, and only a few of these are liquid. This number does not include Cameroon, Gabon, and Rwanda, which recently established stock exchanges, but have not yet attracted listings. Few stock exchanges have histories going back before independence. While most stock exchanges are national, the Bourse Régionale des Valeurs Mobilières, headquartered in Abidjan, Côte d'Ivoire, caters to the eight-country West African Economic and Monetary Union. It was expanded from the Abidjan Stock Exchange, which was created in 1976. Similarly, the Bourse des Valeurs Mobilières de l'Afrique Centrale, headquartered in Libreville, Gabon, caters to the countries of the Economic and Monetary Community of Central Africa. Box 2.4 discusses the example of the Egyptian stock exchange—the Egyptian Exchange—and how the general business environment and specific policies have influenced its development.

With the exception of the stock exchange in South Africa, African stock exchanges are small as gauged by the ratio of market capitalization to GDP (figure 2.21). African stock exchanges are also dominated by few stocks: the average number of listed companies per 10 million people is around 36 (figure 2.22). This re-

### Box 2.4 The Egyptian Exchange

The Alexandria and Cairo stock exchanges, today called the Egyptian Exchange, date to 1883 and 1903, respectively, thus effectively constituting the oldest stock exchange on the continent. Before folding up in 1961 because of the state-sanctioned demise of Egypt's private sector, they ranked together as the fourth largest stock exchange worldwide. Because of the nationalization post-1961, the number of listed companies sharply declined and brokers left their jobs. After a dormancy of 31 years, the stock exchange was revived in 1992 and was the first Arab stock exchange to become a member of the World Federation of Exchanges.

The government took important steps to revive the stock market after its reopening in 1992. First, the foreign ownership of securities was again allowed, which attracted foreign funds into the economy and thus promoted the stock exchange index. Second, arbitration was introduced to circumvent the regular legal system with all its well-known deficiencies. Most critical, however, tax incentives were introduced to attract listings and investors. Tax exemptions on capital gains and dividends for retail and institutional investors were aimed at enticing investors to use their savings in listed equity rather than bank deposits, while exemptions on corporate tax payments were offered for listing firms. Via public offerings, 52 state-owned enterprises were privatized in Egypt.

These incentives led to a rather large boom in listings. Egypt's stock market capitalization reached a staggering 107 percent of GDP in 2007, ahead of countries at similar income levels, such as Colombia, Peru, and the Philippines. However, many firms floated only a small share of their total equity. Feyen (2010) reports that more than 50 percent of firms have free floats of less than 15 percent, and only 5 percent have free floats exceeding 70 percent. This also explains why the boom in listings and market capitalization was not accompanied by a similar increase in liquidity; the turnover ratio, reaching 47 percent in 2007, is similar to the ratios in other middle-income countries.

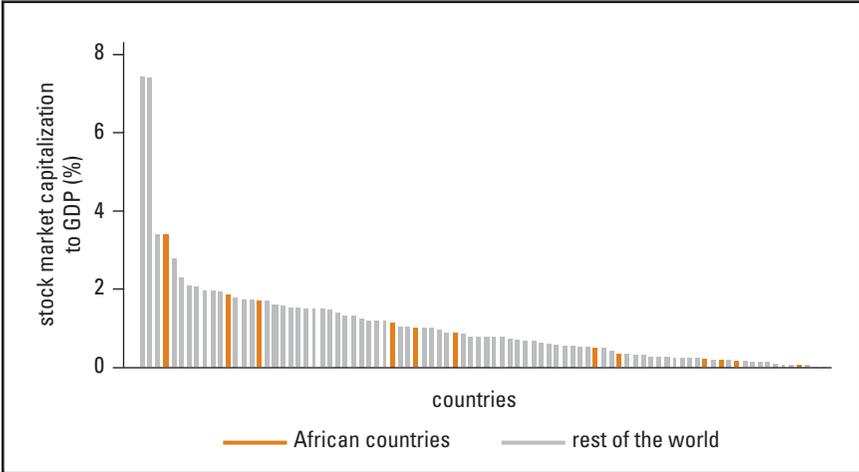
In 2005, an amendment of the tax law canceled the tax exemption, which led more than 500 companies to delist. More recently, in 2008, in a move to show preference for quality over quantity, the exchange changed its listing rules. The changes were aimed at strengthening governance and improving disclosure among listed companies to enhance market liquidity. This reduced the number of listed companies to 218, down from 550. Trading statistics significantly improved after these changes were implemented. Recently, the exchange also launched Nilex, a trading segment with relaxed listing rules that is expected to facilitate the access of small and medium enterprises to financial markets (see the discussion in chapter 4).

*Source:* Feyen (2010).

flects the small scale of stock exchanges across Africa and shows the limitations on the use of stock exchanges as funding tools in the host countries. The small number of listed companies also suggests that the concentration among listed companies is high: few companies dominate the market in most African stock exchanges.

Africa's stock exchanges are not only small, but also illiquid. With the notable exception of the exchanges in Egypt, Morocco, and South Africa, Africa's stock ex-

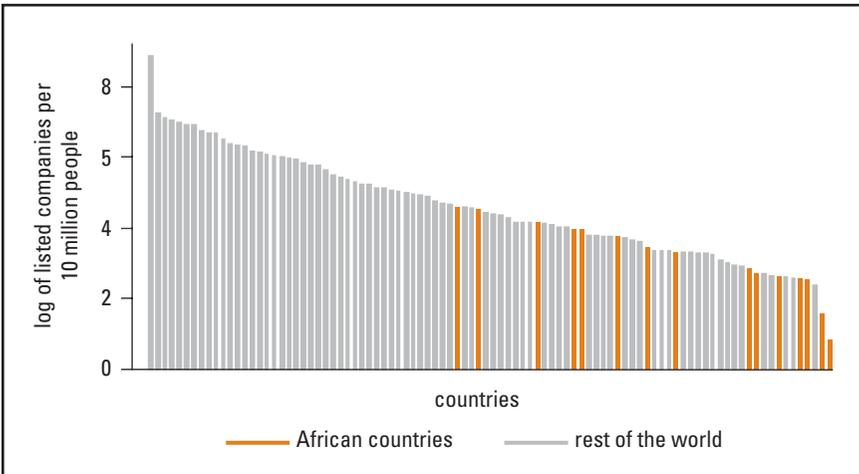
**Figure 2.21 Stock Market Capitalization across Countries, 2009**



Source: Beck, Demirgüç-Kunt, and Levine (2010).

Note: Sample size: 88 countries. The highest African values are for Mauritius, Morocco, and South Africa.

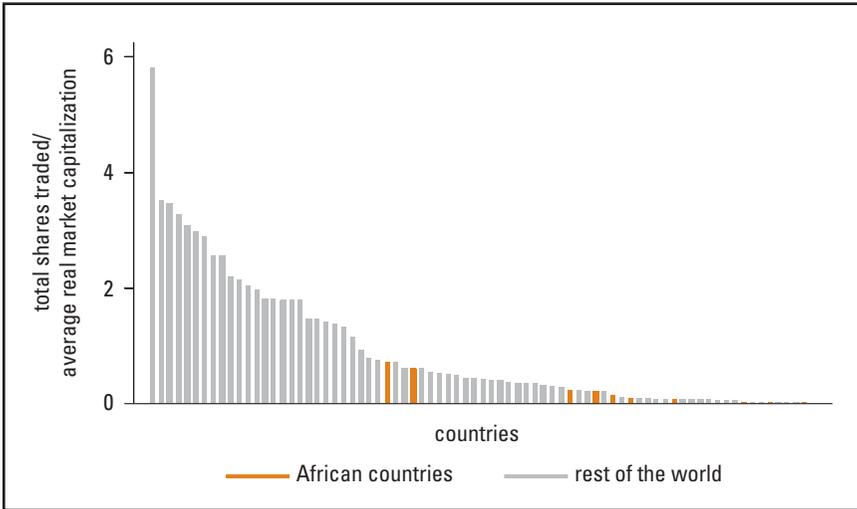
**Figure 2.22 Listed Firms across Countries, 2009**



Source: Beck, Demirgüç-Kunt, and Levine (2010).

Note: Sample size: 94 countries. Log scale is used. The highest African values are for Botswana, South Africa, Swaziland, and Zimbabwe.

changes are among the least liquid capital markets across the globe as measured by the ratio of traded to listed stocks (figure 2.23). The low trading levels indicate the degree to which a large fraction of the shares in developing markets is effectively locked up in the strategic stakes of controlling shareholders and not normally avail-

**Figure 2.23 Stock Market Liquidity across Countries, 2009**

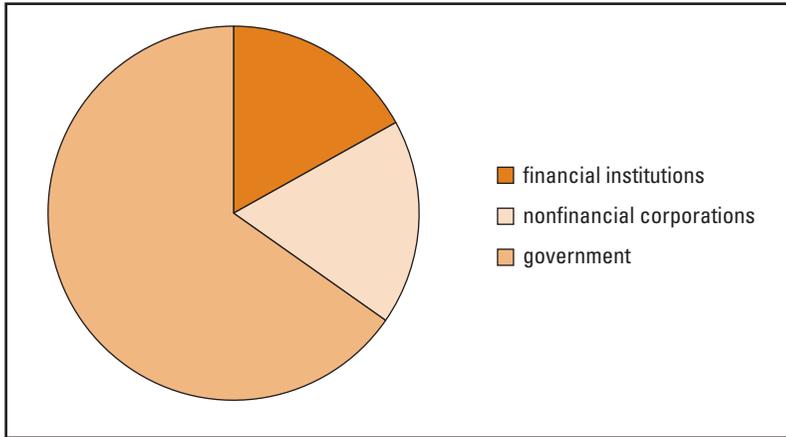
Source: Beck, Demirgüç-Kunt, and Levine (2010).

Note: Sample size: 79 countries. The highest African values are for the Arab Republic of Egypt, Morocco, South Africa, and Tunisia.

able for trading. Given that the positive contribution of stock market development to economic growth derives through liquidity more than size, the low degree of liquidity is indeed worrying and calls into question the role of stock exchanges as drivers of growth (for instance, see Levine and Zervos 1998). We discuss this issue in more depth in chapter 4.

The limited size and liquidity of stock markets are mirrored on the bond side of capital markets. The primary bond markets are small and dominated by government and financial institutions (figure 2.24). Table 2.4 shows that short-term securities dominate most African bond markets as well. Even in South Africa, over-the-counter trading is still prevalent on the debt market (Ambrosi 2009). With the exception of Nigeria and South Africa, no countries have secondary bond markets.

The small size and limited liquidity of African capital markets have many explanatory factors, and we return to the policy implications in chapter 4. Briefly, the nascent character of capital markets is driven by the lack of market culture, high listing costs, the fear of losing family ownership, and inefficient investor protections. The limited success of market segments with relaxed listing rules shows that the development stage of the enterprise population across Africa—few firms are large enough to sustain trading in their stocks—is an important, but not sufficient factor in explaining the small size and low liquidity of African markets. These features make capital markets less attractive as funding instruments for firms or

**Figure 2.24 Bond Market Structure in Africa**

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

**Table 2.4 Bond Markets across the Region**

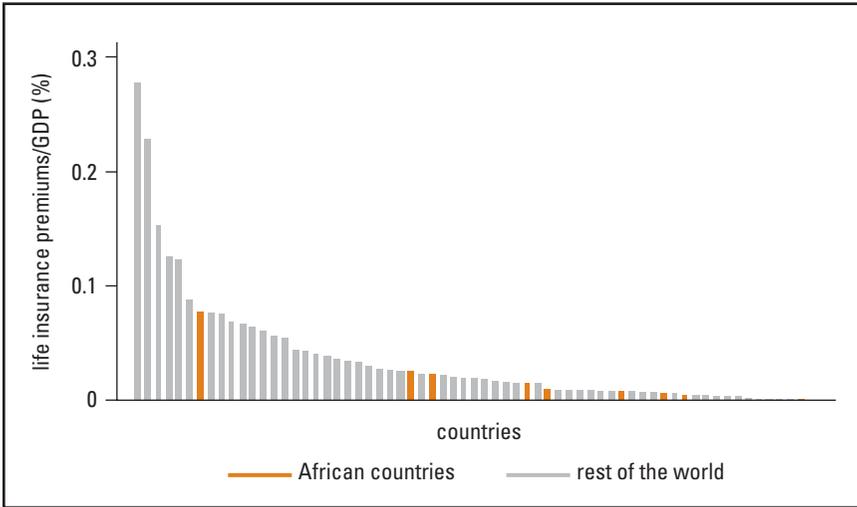
	Longest duration, years	Short-term securities/ total securities
Botswana	12	51.1
Ghana	5	35.0
Kenya	15	7.0
Lesotho	10	86.8
Mozambique	—	8.4
Namibia	15	30.0
Nigeria	10	62.7
Swaziland	5	74.4
Tanzania	10	—
Uganda	10	62.1
Zambia	5	63.9

Source: Ambrosi (2009).

Note: n.a. = not applicable. — = not available.

as investment vehicles for personal and institutional investors, resulting in a self-sustaining vicious cycle of low liquidity.

The insurance sector is in its infancy in most African countries as well, as illustrated by the low insurance penetration across Africa (figure 2.25). With the exception of Lesotho, Morocco, South Africa, and Tunisia, insurance penetration is

**Figure 2.25 Life Insurance Penetration across Countries, 2008**

Source: Beck, Demirgüç-Kunt, and Levine (2010).

Note: Sample size: 67 countries. The highest African values are for Botswana, Lesotho, and South Africa.

below 1 percent. In addition, the insurance business is dominated by non-life insurance business lines, such as automobile, health, and industrial insurance policies, while the life segment constitutes less than 30 percent in most countries. This reflects the fact that, in most countries, insurance development is driven by compulsory business lines, such as the motor line. Many countries have fragmented insurance systems characterized by many small, underfunded, and weak companies. The lack of regulatory oversight, including in consumer protection, undermines the development of insurance markets. In many countries, insurance supervision is still undertaken by an office within the ministry of finance, although there is an increasing trend toward a separate nonbank financial institution supervisor. Notable is the development in francophone West and Central Africa of a joint insurance supervisor for 14 countries. In some North African countries (Algeria, Egypt, and Libya), the dominance of state-owned insurance companies may also explain the limited development of the insurance sector. Low incomes explain much of the low insurance penetration; monetary instability and the weak contractual framework contribute as well.

### Explaining Financial (Under)Development in Africa

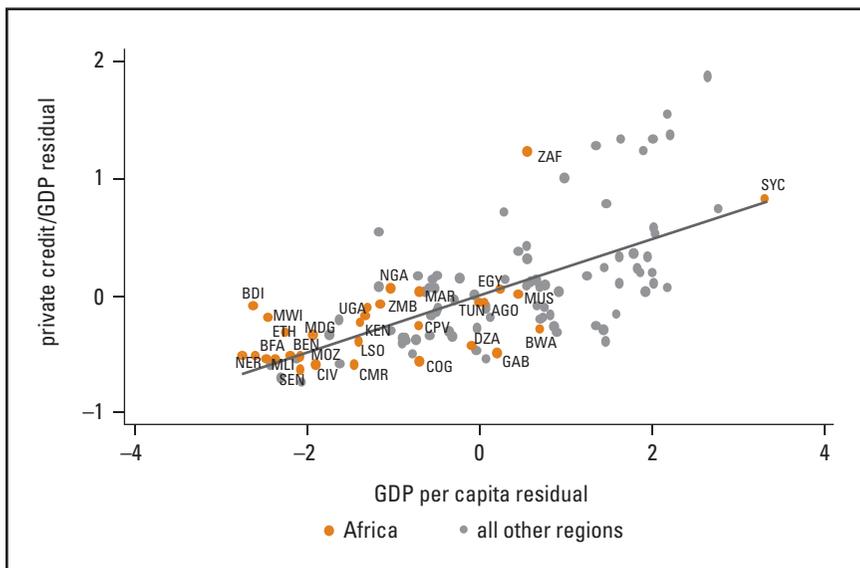
What are the factors explaining the low level of financial development across most African countries and the variation of financial development within Africa? In the

following, we discuss several factors, including (in box 2.5) a benchmarking model that takes into account these factors simultaneously.

### **Size and income level**

A first explanation is the small size and low income levels of African economies. (We refer to the scale argument discussed in chapter 1.) At the same time as economic development implies that a larger share of the population is participating in market-based transactions and thus demanding formal financial services, higher incomes imply lower costs and greater skills, resulting in more cost-effective supply. Figure 2.26 shows that, indeed, financial depth increases with GDP per capita. However, we also see that many African countries have even lower levels of private credit to GDP than we would predict based on their level of economic development. This applies to many low-income countries, such as Cameroon, the Republic of Congo, Gabon, and Senegal, but also several middle-income commodity exporters, such as Algeria and Botswana. Closely related to income levels is the share of the population living and working in the informal economy. Because of the documentation requirements, formal financial institutions are less likely to supply services to households and firms in the informal sector, resulting in less supply; by the same token, however, the demand for formal financial services will be lower in the informal sector because of the need to avoid tax payments and regulatory requirements.

**Figure 2.26 Financial Development and GDP Per Capita, 2009**



Source: Beck, Demirgüç-Kunt, and Levine (2010); World Development Indicators Database, World Bank, Washington, DC, <http://data.worldbank.org/data-catalog/world-development-indicators/>.

Note: Sample size: 119 countries. GDP per capita is taken in log scale. For a complete listing of 3-letter country codes and the respective country names, see pages xvi–xvii.

## ***Inflation***

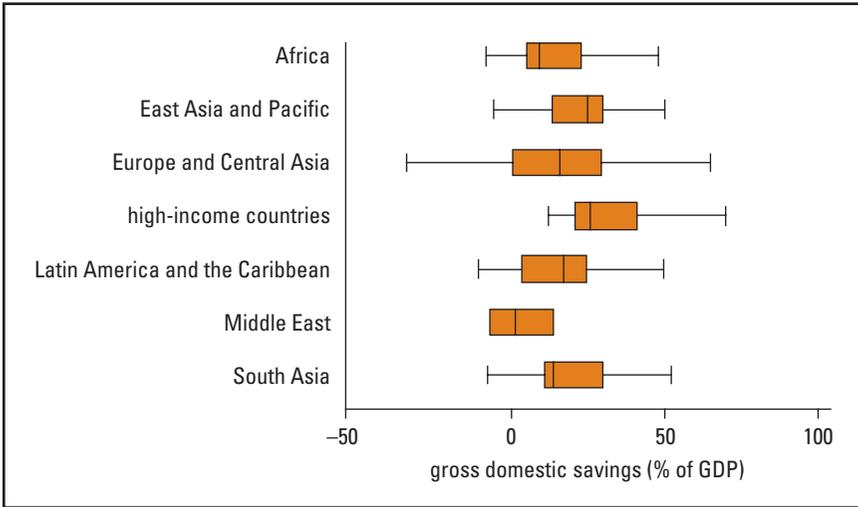
Figure 2.26 controls for inflation, which is a second important factor explaining financial underdevelopment. A low and stable rate of inflation provides incentives for financial rather than nonfinancial forms of savings. By providing monetary certainty, it is also conducive to long-term contracting and, thus, long-term savings and investment. The absence of monetary stability is therefore directly related to the volatility that undermines financial contracting. Savers are more likely to entrust their savings for a given interest rate if they can be quite confident of receiving the expected return in terms of real consumption units. Similarly, monetary stability allows investors to compute the return on projects adequately and commit to payments in real terms. Empirical research has shown the relationship between monetary stability and financial development, which also holds for African economies (see Boyd, Levine, and Smith 2001). However, as we discuss in chapter 4, monetary stability is a broader concept than low and stable inflation and is a necessary, but far from sufficient, condition for financial deepening.

## ***Low savings rates***

On the resource and deposit sides, aggregate indicators are consistent with the generally low savings rates across the continent. These, in turn, can be explained by the low and volatile incomes and the demographic structure of African populations, which are dominated by young age-groups, high illiteracy rates, and low life expectancy. In some countries, life expectancy has recently decreased again because of AIDS. The median savings rate in Africa is 10.2 percent, which is lower than the rate in all other regions of the world except the Middle East (figure 2.27). It is important to note, however, that there is wide cross-country variation within the continent, ranging from -121 percent in postconflict Liberia to 72 percent in oil-exporting Equatorial Guinea. The low aggregate financial development indicators documented above are also consistent with the high degree of capital flight documented in the literature on Africa. While exact numbers are missing because of the informal methods used to expatriate domestic savings, aggregate data point to Africa as the continent with the largest share of private wealth held abroad (Collier, Hoeffler, and Pattillo 2001). Boyce and Ndikumana (2001) estimate capital flight from 25 low-income Sub-Saharan African countries during the period 1970-96 at US\$193 billion, while Ndikumana and Boyce (2008) estimate capital flight from 40 Sub-Saharan African countries during the period 1970-2004 at US\$420 billion, making these countries effectively net creditors to the rest of the world.

A rough indicator of the private capital flight is the ratio of offshore to domestic deposits.<sup>7</sup> This is significantly higher in Africa than in other regions (figure 2.28). However, it has been declining significantly in recent years, which may be interpreted as a sign of the increasing confidence of Africans in their domestic financial systems (figure 2.29). Because this indicator is a ratio of offshore and domestic deposits, however, the reduction may be driven as much by a lower return on expatriated savings (which could also be caused by tightened legislation in Europe

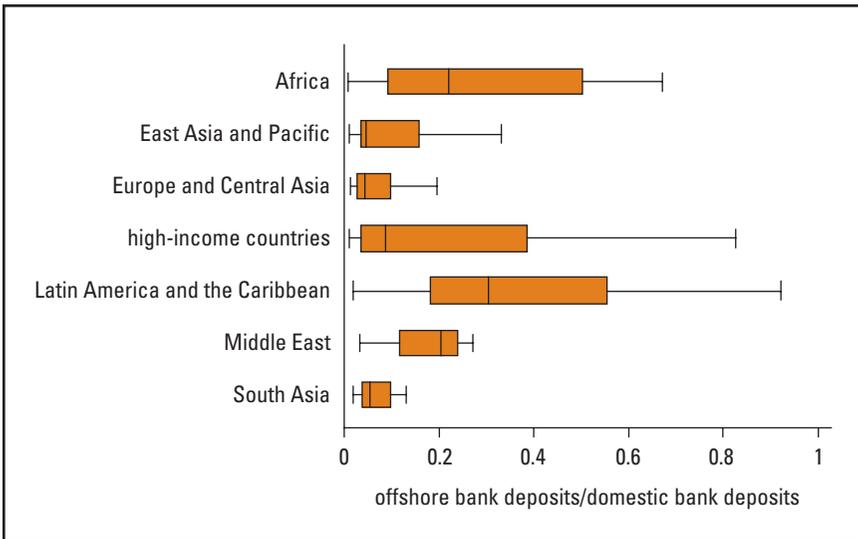
**Figure 2.27. Domestic Savings across Regions, 2008**



Source: World Development Indicators Database, World Bank, Washington, DC, <http://data.worldbank.org/data-catalog/world-development-indicators/>.

Note: Sample size: 161 countries. The figure shows the minimum, maximum, and median of the ratio of gross domestic savings as a percent of GDP. The shaded boxes indicate the interquartile range.

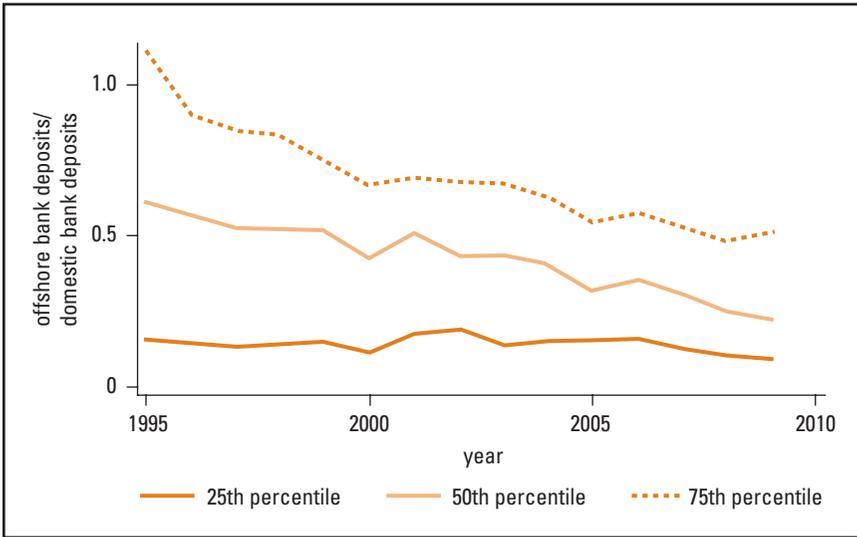
**Figure 2.28 The Ratio of Offshore to Domestic Deposits across Regions, 2009**



Source: Beck, Demirgüç-Kunt, and Levine (2010).

Note: Sample size: 144 countries. The figure shows the minimum, maximum, and median of offshore to domestic bank deposits. The shaded boxes indicate the interquartile range. Outliers have been omitted.

**Figure 2.29** The Ratio of Offshore to Domestic Deposits over Time, 1995–2009



Source: Beck, Demirgüç-Kunt, and Levine (2010).

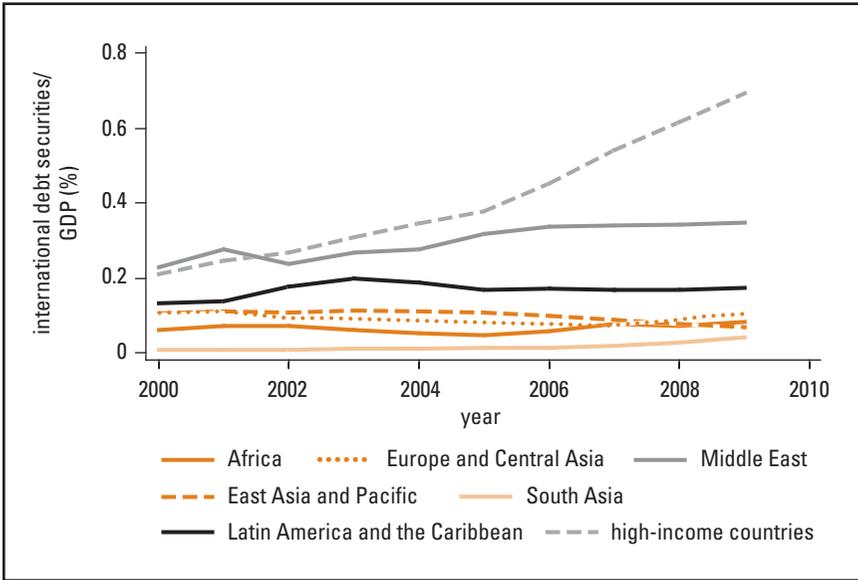
and other industrialized countries against money laundering) as by the increase in domestic deposits documented above.

Previously, this capital flight could not be offset by private inflows. Until a few years ago, Africa was the only continent in which donor funding exceeded private portfolio funding (Senbet and Otchere 2006). As in almost all other parts of the developing world, however, Africa has benefitted from the global liquidity glut in the form of high capital inflows, though the increase has not been as steep as in other regions, for example Central and Eastern Europe (figure 2.30).

### **Population density**

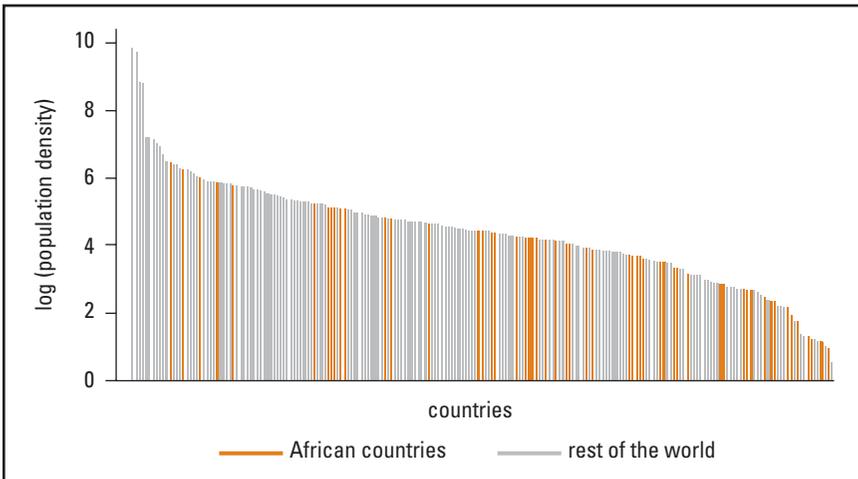
Population density is another important driver of financial depth, especially within Africa (Allen et al. 2010; Beck et al. 2008). Directly related to scale, a more disperse population is more difficult to serve, especially in the context of Africa and its deteriorated transportation infrastructure. Most African countries have significantly lower population densities than other developing countries (figure 2.31). To illustrate the importance of population density, take the example of Burundi and Zambia. Despite its low income level and an ongoing conflict, Burundi has a ratio of private credit to GDP of almost 20 percent, a higher level than Zambia, which has half the population density, but which has been socioeconomically and politically stable over the past 50 years.

**Figure 2.30 Capital Flows across Regions, 2000–09**



Source: Beck, Demirgüç-Kunt, and Levine (2010).

**Figure 2.31 Population Density across Countries, 2008**



Source: World Development Indicators Database, World Bank, Washington, DC, <http://data.worldbank.org/data-catalog/world-development-indicators/>.

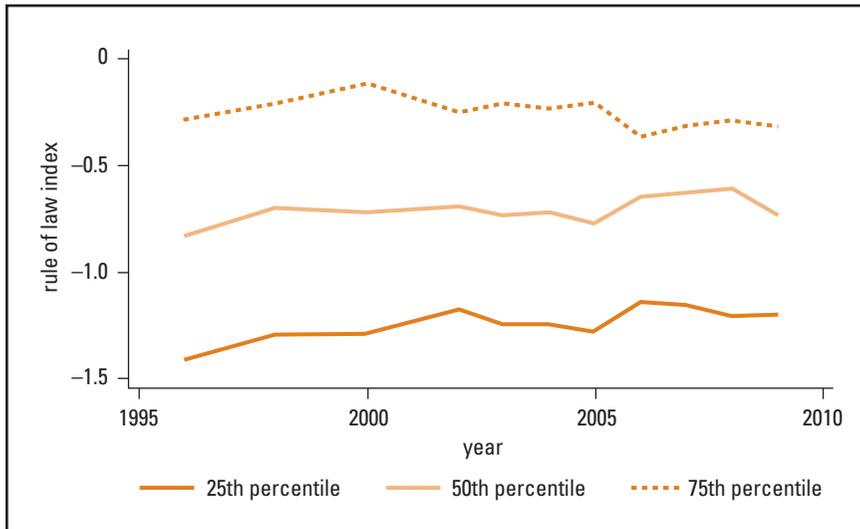
Note: Sample size: 209 countries. The highest African values are for Burundi, the Comoros, Mauritius, Mayotte, and Rwanda. Log scale is used.

## Governance

Financial contracts depend on the certainty of the legal rights of borrowers, creditors, and outside investors and the predictability and speed of the fair and impartial enforcement of these rights. International comparisons have provided ample evidence for the critical role of legal system efficiency and its different elements in financial sector development (for example, see La Porta et al. 1997; Levine, Loayza, and Beck 2000). However, the governance agenda is broader than the contractual framework. Corruption can undermine relationships between banks and customers, as well as between regulators and banks. Political interference can have a negative effect on the optimal allocation of resources.

African economies still face serious governance challenges. Figure 2.32 shows the relative position of African countries in a composite indicator of the rule of law. On a scale that has been normalized to give a worldwide average of 0 and a standard deviation of 1, the median across African countries is 0.73. With the exception of a few middle-income countries, most African countries are below the average of 0. An assessment of the evolution of this indicator from 1996 to 2009, the period for which this composite indicator is available, shows no firm trend toward improvement over these 13 years. Nonetheless, the African countries lagging the most caught up somewhat, as can be seen from the trend in the 25th percentile. It is important to note that this indicator is a relative one, that is, if all countries in the world improve, this would not be picked up by the indicator because, by construc-

**Figure 2.32 Rule of Law over Time in Africa, 1996–2009**



Source: Kaufman, Kraay, and Mastruzzi (2009).

Note: Sample size: 53 countries.

tion, it has a mean of 0 and a standard deviation of 1. So, the statement we can make based on figure 2.32 is that, relative to the rest of the world, Africa has not improved, notwithstanding improvements in the legal system.

### ***Variation in financial sector development across the continent***

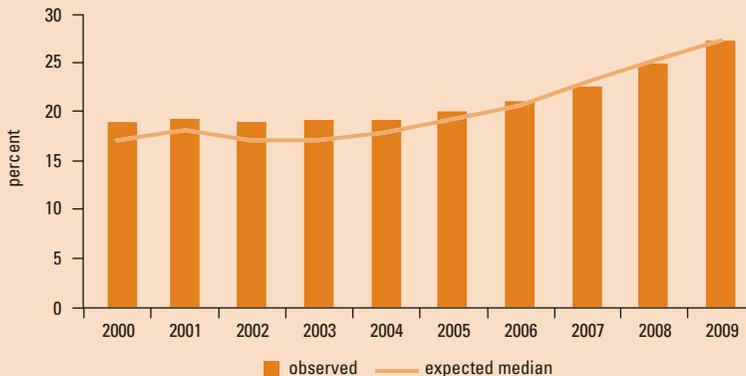
Box 2.5 shows that there is substantial variation across Africa in the depth, breadth, efficiency, and diversity of financial systems, which we point out throughout this chapter. It is worthwhile recapturing this. The financial systems of most African

#### **Box 2.5 Benchmarking Financial Development**

Building on a large literature that assesses the relative importance of different country characteristics in explaining financial development, Beck et al. (2008) construct a benchmarking model that allows a comparison of the actual level of financial development of a country with the expected level also allows the progress of countries to be tracked over time. Deviations of the actual from the expected level of financial development can be explained by country-specific circumstances not captured in the regression model (for example, civil strife) or by the impact of policies that are intentionally not included in the regression model. In its most basic form, the regression model includes the log of GDP per capita to account for the positive relationship between income and finance, as well as the square of the log of GDP per capita to account for nonlinearities in the relationship between income and finance, country size measured by the log of population to capture scale effects, population density to capture the infrastructure costs of outreach, the age dependency ratio to capture differences in savings trends and the demand for financial service products, and dummies for offshore centers, transition economies, and oil-exporting countries.

The level of private credit to GDP has been, on average, at the expected level for African countries (figure a). Figure b, in contrast, shows that the average low-income country in Africa has not achieved the level of financial development expected according to country

Figure a. Private Credit to GDP: Expected Versus Actual across Africa



**Box 2.5 Benchmarking Financial Development** (continued)

Figure b. Private Credit to GDP: Expected Versus Actual across Low-Income Africa

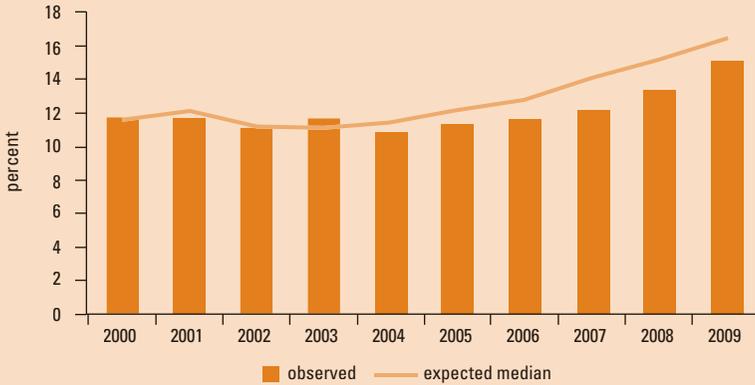
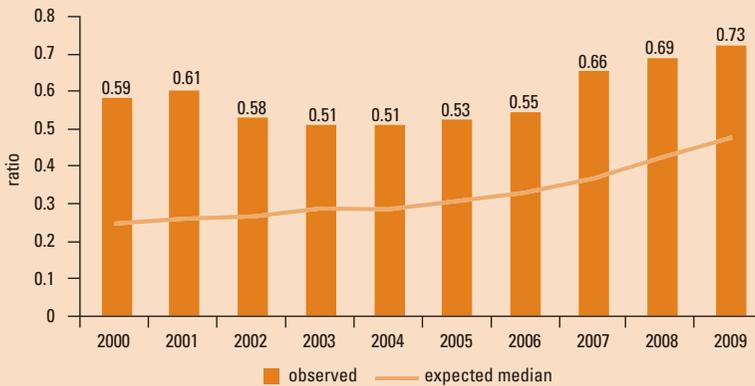


Figure c. Private Credit to GDP: Expected Versus Actual across North Africa



characteristics. Data for North Africa show a persistently higher level of actual financial development than is predicted by the benchmarking model (figure c). The variables in the model contribute to the low expected level of financial development in Africa. The lower incomes in Africa explain 7 percentage points of the lower ratio of private credit to GDP in Africa compared with South Asia. The much lower population density in Africa compared with South Asia explains 14 percentage points of the lower level of private sector lending in the Africa region, while population size, in itself, does not seem to matter much. The higher share of the young population segment in Africa also contributes to a much lower level of financial development compared with other developing regions, such as South Asia.

Source: Beck et al. (2008).

countries essentially consist of banking systems that provide basic transaction and short-term credit services, thus fulfilling the Finance for Markets role, but at high cost. Some of these countries have stock exchanges (see elsewhere above), but these have a limited role, if any, in the impact of finance on the real economy. None of these countries has a significant contractual savings industry.

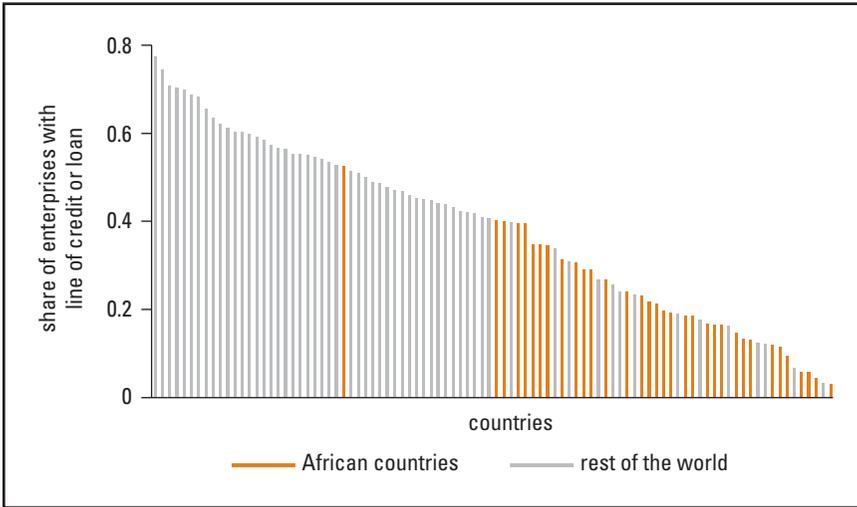
Several groups stick out from this sketch of a typical African financial system (Alawode 2003). First, there is a group of middle-income countries, such as Egypt, Mauritius, Morocco, and South Africa, that not only have much more developed banking systems, but also exhibit much more diversified financial systems. These countries also have better institutional capacity. However, even within this group, there are important differences. Consumer credit, for example, plays an important role in South Africa, but not in Mauritius, mostly for cultural reasons. A second important group is large low-income countries, such as Ethiopia, Kenya, and Nigeria. The financial systems in these countries do not have the same degree of sophistication. Yet, unlike their smaller low-income peers, they have the capacity to sustain more diversified financial systems, including a diversified nonbank financial sector and capital markets. A third important group consists of commodity-exporting countries. As shown by Beck (2011), financial systems are as susceptible to a Dutch Disease phenomenon as any other part of the institutional framework of countries. Commodity exporters have, on average, less well developed financial systems and banks that are more liquid, more well capitalized, and more profitable, but give fewer loans to firms. Firms in resource-based economies use less external finance, and a smaller share of them use bank loans, although there is the same level of demand as in other countries, thus pointing to supply constraints. A fourth group consists of offshore centers, such as Mauritius, with a segmented financial system.

An additional important difference is that between common and civil law countries, a difference that has been explored in depth by Honohan and Beck (2007). Common law countries—all former British colonies—not only show, on average, a higher level of financial development (private credit to GDP shows a median of 24 percent as opposed to 15 percent in civil code countries), but also have different regulatory approaches. The different profiles of financial systems across countries have implications for the discussions in the following chapters and for the formulation of policy, a topic to which we return in chapter 6.

## **The Firm and Household Usage of Financial Services**

### ***Limited access to enterprise finance***

The limited outreach of Africa's financial systems also appears on the user side. Enterprise surveys give a good overview of the obstacles enterprises face and the financing patterns of enterprises. These microlevel data have been used extensively by researchers to understand the challenges faced by enterprises in countries

**Figure 2.33 Access to Bank Loans across Countries, 2006–10**

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

Note: Sample size: 94 countries. The highest African values are for Benin, Cape Verde, Malawi, and Mauritius.

in Africa and other developing regions (Hallward-Driemeier and Aterido 2007; Aterido, Hallward-Driemeier, and Pagés 2007). Figure 2.33 shows the limited access to external finance by enterprises in Africa. On average, only 23.1 percent of enterprises have loans or lines of credit, while the corresponding share among enterprises in non-African developing countries is 46.1 percent. This is also reflected in obstacles identified by the enterprises themselves.

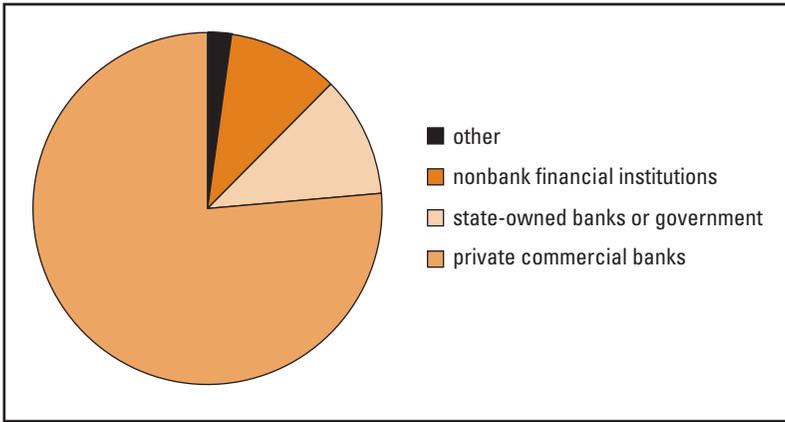
The bank-based nature of African finance also becomes clear if one considers the various sources of external financing for enterprises. Figure 2.34 shows that more than 75 percent of the external funding for a cross-section of African countries and enterprises comes from private commercial banks, while less than 12 percent comes from nonbank sources.

In addition, there is limited access to other nonbank sources. We have documented the shallow nature of organized equity and debt markets elsewhere above, but other segments of finance that are prominent in developed countries and many emerging markets of Asia and Latin America are missing in Africa as well. Figure 2.35 shows the limited penetration of private equity across Africa compared with other regions of the world as measured using the ratio of private equity to GDP.

### ***Cost and documentation barriers in deposit and payment services***

The high cost of banking affects not only borrowers through high lending interest rates, but also deposit customers through high account fees and high minimum

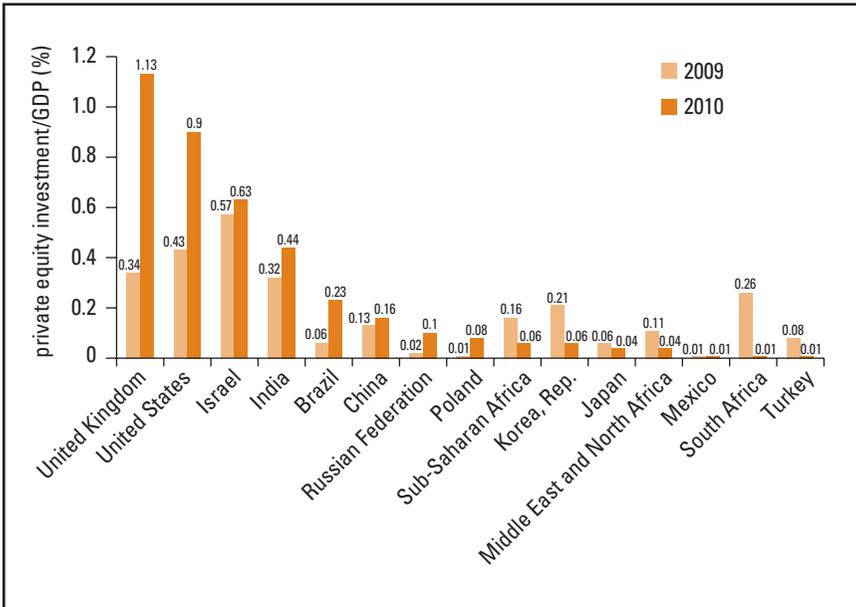
**Figure 2.34 The Bank-Based Nature of African Finance from the Perspective of Users**



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

Note: The figure shows the sources of external funding for a cross-section of African countries and enterprises.

**Figure 2.35 Private Equity Penetration across the World, 2009–10**



Source: EMPEA (2011).



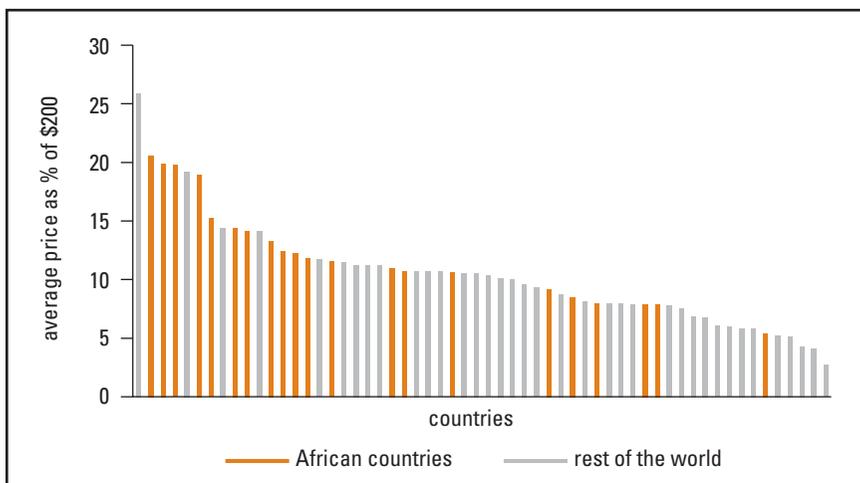


reported by Beck, Demirgüç-Kunt, and Martínez Pería (2008) are suggestive. They indicate that cost and documentation barriers are greater in countries in which there is less competition within the banking system and in which there are more stringent restrictions on bank entry and activities. Poorly developed physical infrastructure is, not surprisingly, another critical factor explaining the high costs in many African countries. Finally, a more vibrant media sector that can disseminate information about interest rates and fees is associated with lower barriers. Also, the barriers faced by bank customers are greater if banking systems are predominantly government owned, but lower if there is more foreign bank participation. Larger banks seem to impose fewer barriers on customers, perhaps because they are better positioned to exploit economies of scale and scope. This last finding adds another interesting perspective to the issue of bank consolidation in Africa.

### Remittances

The high costs of financial services are also reflected in the costs of transferring international remittances. Figure 2.39 shows remittance costs across corridors, that is, from a specific sending to a specific receiving country, with cost information averaged across the largest formal remittance providers. As the figure shows, corridors that include African countries have significantly higher costs. Beck and Martínez Pería (2011) point to familiar factors explaining the cost variation across corridors. Corridors with a smaller number of migrants and with less competition among providers have higher costs. As in the case of interest margins, this points to a lack of scale and a lack of competition as the dominating factors explaining the high remittance costs in Africa. Beck and Martínez Pería also show

**Figure 2.39 Remittance Costs across Countries**



Source: Beck and Martínez Pería (2011).

Note: Sample size: 58 countries. The highest African values are for Botswana, Malawi, Mozambique, and Zambia.

that remittance corridors dominated by banks have higher fees, which emphasizes the need for broadening the institutional landscape. It is important to note that these data only refer to formal remittance services. According to estimates by Freund and Spatafora (2008), at least a third of total remittances are sent through informal channels, such as in-kind or cash transfers, transfers through domestic shops and businesses or social networks, or the underinvoicing of import receipts, commonly referred to as the *hawala* system (literally, in Arabic, bill of exchange, promissory note, or letter of credit). Mazzucato, van den Boom, and Nsawah-Nuamah (2004) show that 65 percent of the remittances going to Ghana are sent through informal channels.

## Conclusions

Over recent decades, the financial sectors of Africa have slowly begun to realize their potential to mobilize domestic resources and finance African growth. The aggregate indicators presented in this chapter show only the surface of the much deeper processes and the progress ongoing within African finance. Across the continent, there are numerous examples of finance firmly finding its role as a catalyst in transforming African economies by providing capital and credit to new businesses or supporting the expansion of productive capacity in established firms; by providing cheap and rapid transfer channels for remittances from abroad, within subregions, and from the growing urban centers to rural communities using mobile technology; by offering new products such as weather insurance to help farmers manage climate risks, or equipment leasing to help small enterprises, or using warehouse receipts as security to push financing into agricultural value chains; by providing governments and firms with a reliable and growing source of domestic long-term funding through liquid capital markets; and by supporting low-income households in the more effective management of their lives through microcredit, no-frills accounts, or microhealth insurance. These developments are key transmission channels for growth. For firms, financial development is important in helping promote start-ups, which, at the country level, means growth potential and economic diversification.

However, despite the significant growth in the financial sector, many firms and most households are still excluded from access to financial services in far too many countries. African finance continues to be short term and costly. Although African financial systems have proven reasonably resilient to the shock waves of the global crisis, weak governance and the weak regulatory and supervisory framework explain the fragility in several countries. In the next three chapters, we discuss each of these challenges.

The analysis in this chapter has clearly shown the bank-based nature of finance in Africa, which, to a large extent, is consistent with the level of economic and financial development of the continent. It also goes hand in hand with the limited services, the short maturity of services on both sides of the balance sheet, and the

limited competition. Financial services that are provided by other institutions and markets outside Africa are not available in Africa because of the lack of a more diversified financial system. The limited access can be documented on the supply side and on the demand side. In the following chapters, we argue that fostering competition, focusing on new providers to expand the availability of services, and looking beyond the supply-side constraints to the demand-side constraints are critical to deepening and broadening the financial systems in Africa.

## Notes

1. For a recent comprehensive discussion on the effects of the crisis on Africa, see Allen and Giovannetti (2011).

2. In addition to the reduction in remittances, there was also apparently some return migration of Africans to their home countries, exacerbating the economic pressures.

3. As an example, a banking system with a Herfindahl index of 2,000 might be a system consisting of five banks in which the banks have equal market shares or in which two banks capture a total of 50 percent of the market, while the other three capture the remainder.

4. Claessens and Laeven (2004) show that there is no significant correlation between concentration and a measure of competition, the H Statistics.

5. These countries are Angola, Ethiopia, Cameroon, Malawi, Morocco, and Sudan. The two African outliers on the right in the figure, which show low levels of market power, are Burkina Faso and Côte d'Ivoire.

6. For a general overview of the literature on the effects of foreign bank entry, see Cull and Martínez Pería (forthcoming).

7. As pointed out by Honohan and Beck (2007), the level of offshore deposits might also arise because of factors unrelated to capital flight, such as use by multinational enterprises or exporters. However, the level of capital flight may be understated by the level of offshore deposits because it does not include capital flight through nonbank channels.

