

# Mobile Banking

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*Mobile banking systems present a unique opportunity to increase financial inclusiveness at a relatively low cost and have been largely successful in other sub-Saharan African countries. But there are substantial constraints to mobile banking in the West African Economic and Monetary Union (WAEMU). With relatively high mobile phone penetration and a large market for cross-border payments in the WAEMU, the potential for growth in this area is high, as evidenced by comparing the stance of mobile payments in the WAEMU to countries such as Kenya and Tanzania. Transaction costs, issues of network interoperability, and legal and regulatory barriers may represent substantial constraints to development of the mobile market in the WAEMU. An overview of oversight issues on mobile payments uncovers the key pillars necessary to safeguard stability: minimum market entry requirements, financial integrity controls, funds safeguards, and payment stability.*

## MOBILE PAYMENTS

As conventional financial infrastructure is still limited, but mobile phone penetration is high, mobile payments could boost financial inclusion in the WAEMU (Figure 23.1, panel 1). Financial access in the WAEMU remains low. Only about 10 percent of the population has deposits at a commercial bank and less than one-third of firms access credit and payment methods such as checks (Musuku et al. 2011). The use of credit and debit cards and electronic payments in general are much less developed relative to benchmark countries. However, while direct contact with financial infrastructure remains low, in particular for the most vulnerable parts of the populations, mobile phone penetration has increased rapidly in the WAEMU over the last decade. In some WAEMU countries, it even exceeds mobile phone penetration in countries that have pioneered mobile payments, such as Kenya and Tanzania. The development of mobile financial services could thus serve as a means to increase financial inclusiveness.

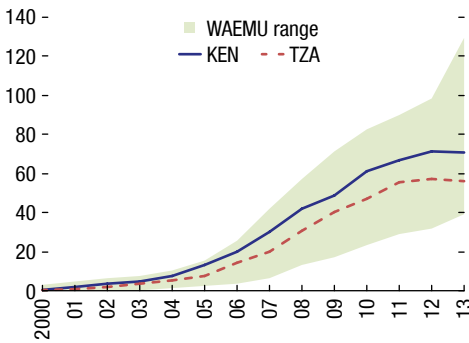
The market for mobile payments in the WAEMU appears large, in particular for cross-border payments, and has increasingly attracted operators in the last few years (Figure 23.1, panel 2; and Figure 23.2). In addition to a large unbanked population, the magnitude of remittances in the region suggests a substantial market for cross-border mobile payments. Providers appear to have responded to the large demand in the region, as the number of mobile payment operators has more than doubled since 2010, with most of the providers now operating in Côte d'Ivoire and Senegal.

A series of initiatives have been taken by the Central Bank of Western African States (BCEAO) to promote the mobile payment sector in the last decade. (Pénicaud and Katakam 2014). In order to promote the use of noncash payment instruments, the BCEAO enacted an e-money law in 2006 requiring financial institutions to make full use of electronic money. In 2012, to unlock the mobile money market, it embarked on an extensive assessment process that includes: (1) visiting other countries in which mobile payment services are more successful, such as Kenya and the

<sup>1</sup>This chapter draws heavily on the recommendations provided in Khiaonarong (2014).

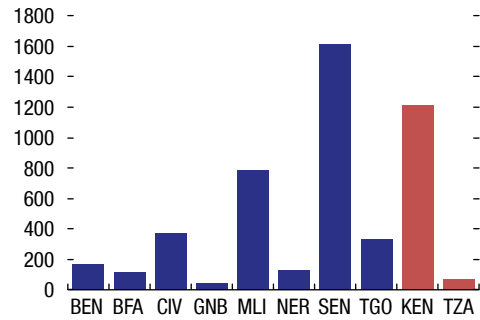
**Figure 23.1. The WAEMU's Market for Mobile Payments**

**1. Mobile Cellular Subscriptions  
(Per 100 people)**



Source: World Development Indicators 2014.

**2. Personal Remittances Received, 2012 or Latest  
(In millions of U.S. dollars)**



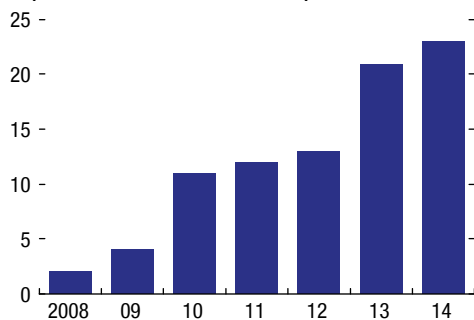
Source: World Development Indicators.

Note: Three-letter International Organization for Standardization abbreviations used for country names.  
WAEMU = West African Economic and Monetary Union.

**Figure 23.2. Mobile Payment Providers in the WAEMU**

The number of mobile payment operators has increased in the past few years...

**1. Number of Providers Launching Mobile Services  
since 2008  
(Cumulated launches since 2008)**

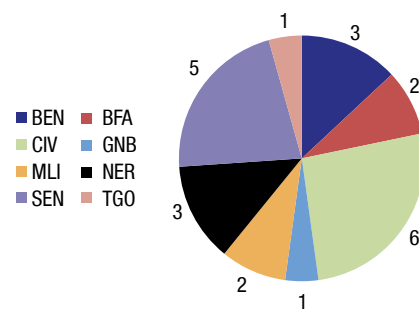


Source: Groupe Speciale Mobile Association (GSMA) 2014.

Note: Three-letter International Organization for Standardization abbreviations used for country names.  
WAEMU = West African Economic and Monetary Union.

...with most operators located in Senegal and Côte d'Ivoire.

**2. Number of Providers per WAEMU Country, 2014**



Philippines, to draw lessons from their approaches; (2) hosting a regional consultation conference to explore how to develop further mobile money across the WAEMU, such as streamlining the licensing process, avoiding increases in minimum capital requirements, allowing greater simplification of account openings, and developing financial education programs for the wider public; and (3) undertaking a study to gain a more informed understanding of how citizens use formal, semiformal, and informal financial services.

The volume of mobile payments has grown recently but remains lower than the volume in benchmark countries, especially for the most vulnerable parts of the population. Mobile payments have expanded rapidly over the last years. In the period between December 2013 and

September 2014, the number of existing accounts increased by 35 percent, to 17 million. In the same period, the number of transactions increased by more than 40 percent, to almost 179 million and a transaction value of FCFA 2,445 billion (about 5 percent of 2014 GDP). However, the use of informal channels of cash-based money transfers remains dominant, and the provision of mobile financial services has been far lower than it has been in benchmark countries such as Tanzania and Kenya. The latest available indicators suggest that mobile payments have been less frequently accessed by the more vulnerable parts of the population, such as the bottom 40 percent of the income population, the population living in rural areas, and females (Figure 23.3).

## IMPEDIMENTS TO MOBILE PAYMENTS

The following factors may be impeding the success of the mobile payments sector in the WAEMU:

- *Cost* (Figure 23.4)—The relatively high cost of using electronic payment services, especially for smaller transactions, appears to make mobile payment services unattractive for the population at the lower end of the income distribution. In particular, Figure 23.4 highlights for selected operators in the WAEMU, that the cost of making an in-network transfer are particularly high relative to the transaction amount for smaller transaction (up to \$10). These costs may be related to the high cost incurred by mobile service providers investing in networks and access points.
- *Intermediation* (Figure 23.5)—The current regulatory framework for providing payment services in the WAEMU requires some form of intermediation by banks. This may be limiting room for innovation and making it difficult for new players to compete with banks. It may also be contributing to the increasing costs of mobile payment services due to the fees associated with bank intermediation. In contrast, Kenya and other countries that witnessed a rapid growth in the use of mobile payment services have adopted nonbank-led models in line with their levels of national economic and financial sector development. These countries have also been partnering up with an on-average larger group of banks and remittance partners.
- *Number of services and interoperability* (Figure 23.6)—Most providers in the WAEMU offer basic transfer and bill-payment services. Other services, however, are still less developed than they are in benchmark countries. While the potential for cross-border transaction is high, it is not explored by most providers. Such services would require interoperability among different service networks, a feature that appears to be still relatively weak in the WAEMU, owing to regulatory constraints, among other things (Musuku et al. 2011). For example, payment system providers are licensed on a national basis, making it difficult to expand into other WAEMU countries. Newer services, such as mobile loan disbursements and microinsurance, are not yet developed in the WAEMU (African Development Bank Group 2013).

## OVERSIGHT OF MOBILE PAYMENTS

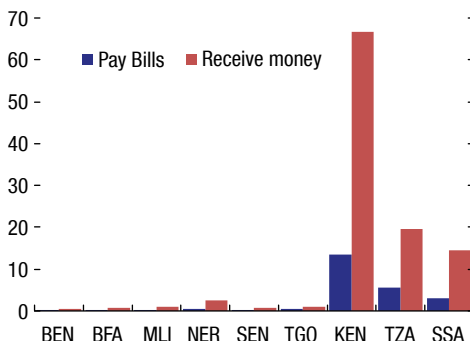
Mobile payment services promote financial inclusion, but they carry a number of risks that may be mitigated by an oversight framework with the following components:

- *Minimum entry requirement into the sector*—Entry requirements, such as minimum capital requirements for nonbank mobile service providers, will help reduce the potential for abuse of mobile services. Such protection is particularly important given that mobile payment services are mostly addressed to the most vulnerable parts of the population.

**Figure 23.3. Mobile Banking across Demographic Groups, 2011**

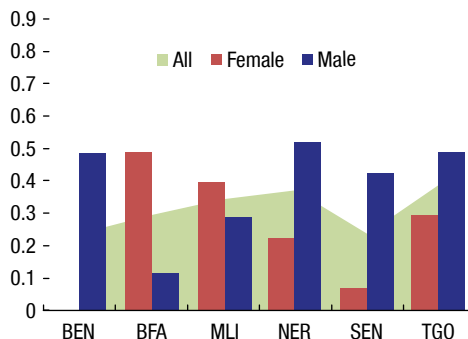
Mobile payments are less common in the WAEMU than in other parts of sub-Saharan Africa.

**1. Mobile Phone Used to Pay Bills/Receive Money, 2011  
(In percent of population, age 15+)**



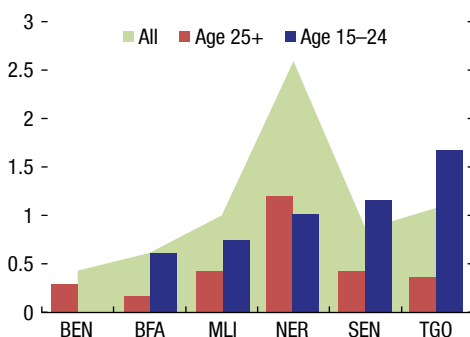
Mobile services are more often used by men than women.

**2. Mobile Phones Used to Pay Bills, 2011  
(In percent of respective population group)**



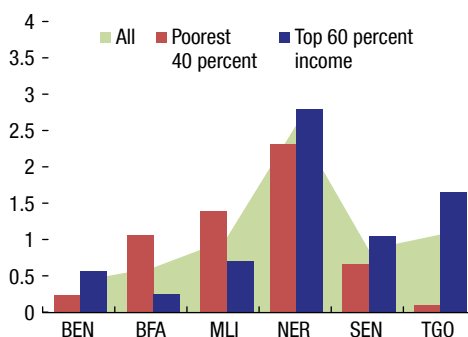
The use of mobile phones to receive money varies across the region.

**3. Mobile Phones Used to Receive Money, 2011  
(In percent of respective population group)**



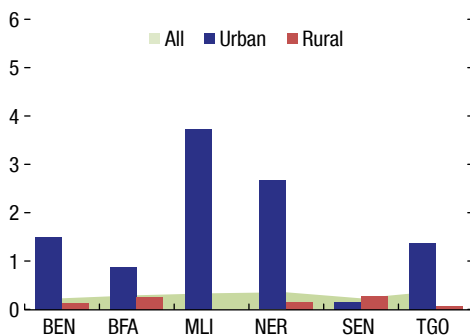
The use of mobile payments is underdeveloped in rural areas, ...

**4. Mobile Phones Used to Receive Money, 2011  
(In percent of respective population group)**



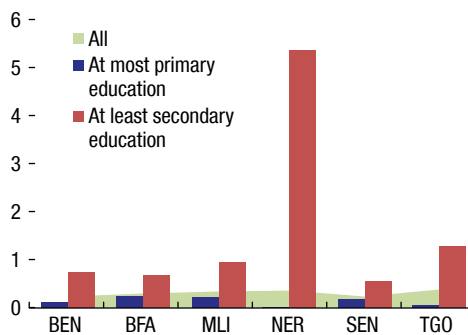
... in lower educational groups, ...

**5. Mobile Phones Used to Pay Bills, 2011  
(In percent of respective population group)**



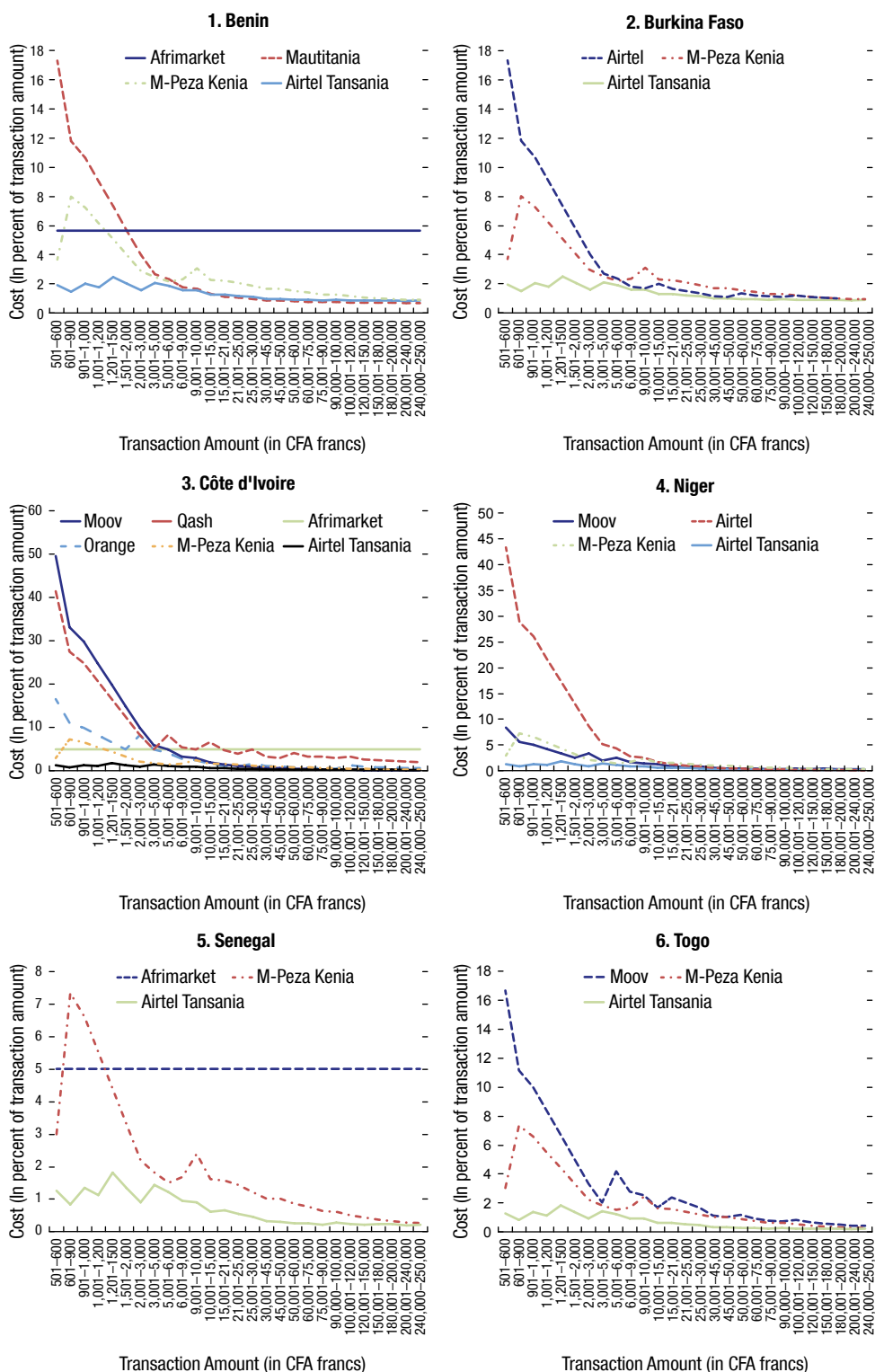
... and among the poorest parts of the population.

**6. Mobile Phones Used to Pay Bills, 2011  
(In percent of respective population group)**

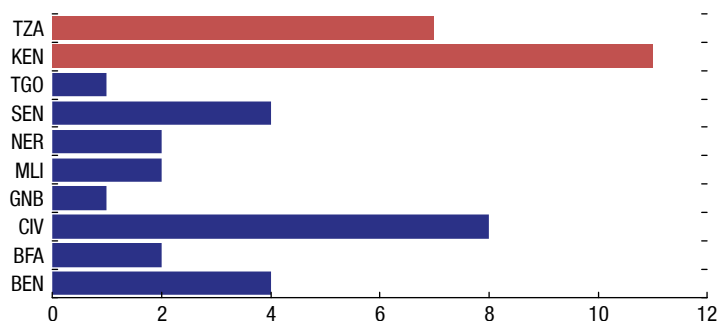


Source: Findex.

Note: Three-letter International Organization for Standardization abbreviations used for country names.

**Figure 23.4. Transaction Cost for Selected Providers**

**Figure 23.5. Number of Bank and Remittances Partners  
(Absolute number per country, 2014)**



Sources: Groupe Speciale Mobile Association (GSMA); Mobile Money for the Unbanked (MMU) Deployment tracker.

Note: Three-letter International Organization for Standardization abbreviations used for country names.

- *Financial integrity controls*—Mobile payments may increase the complexity of payments and give rise to money laundering and financing of terrorism risks. Therefore, these services should be subject to adequate controls and checks by the supervisory authorities. Their providers should be assessed and supervised based on their cooperation with detecting and reporting suspicious activities.
- *Fund safeguarding*—As mobile payment services address mostly people at the lower end of the income distribution, they should include some form of guarantee or insurance to cover funds in case of failure of the mobile financial service provider. Such guarantees can be in the form of coverage by insurance companies or the inclusion of these services within the scope of deposit insurance schemes applicable in some countries.
- *Operational resiliency*—Mobile payment services may run substantial operational risks, particularly when functioning under poor or limited infrastructure. Therefore, mobile payment providers' business continuity plans should be regularly tested for viability and effectiveness.
- *Payment system stability*—The high number of transactions connected with mobile payments may create settlement risk, which might translate into both liquidity and credit risks that potentially affect financial stability. Therefore, mobile payment services, particularly those performed by nonbanks, should be subject to a very robust clearance and settlement system leveraging on the system used for bank transactions.

Subject to a strong oversight framework, the development of mobile financial services in the WAEMU should be promoted further. Mobile payment services have been picking up in the WAEMU, but there is potential for a further expansion. Policies should be targeted at reducing cost, in particular for small transaction amounts. Policies that favor the expansion of interoperability between networks could further open the market for cross-border payments. To safeguard stability, such development of mobile payment services should go hand in hand with measures to strengthen the oversight framework.

Figure 23.6. Mobile Service Provided in the WAEMU, Kenya, and Tanzania

		P2P Transfer (Domestic)	Bill Payment	Other Bulk Payment	Airtime Top Up	Merchant Payment	International Remittances	Link to Other Banking Products	Mobile Microinsurance	Loan Disbursement or Repayment
BEN	Afrimarket					X	X			
	Flooz	X	X		X	X		X		
	MTN Mobile Money	X	X	X	X	X	X			
BFA	Airtel Money	X	X	X	X					
	Inovapay	X	X	X	X	X	X		X	
CIV	Afrimarket Côte d'Ivoire					X	X			
	Celpaid Côte d'Ivoire	X	X	X	X					
	Flooz	X		X	X	X				
	MTN Mobile Money	X	X	X	X	X	X			
	Orange Money	X	X	X	X	X		X		
	Qash Mobile Banking	X	X		X		X			
GNB	MTN Mobile Money	X	X		X	X				
MLI	MobiCash									
	Orange Money	X	X		X	X	X			
NER	Airtel Money	X	X	X	X	X				
	Flous	X	X		X	X		X		
	Orange Money	X	X		X	X				
SEN	Afrimarket Senegal					X	X			
	Orange Money	X	X	X	X	X				
	Tigo Cash	X			X					
	W@ri	X			X					
	Yoban'tel	X	X	X			X			
TGO	Flooz	X	X		X	X				
KEN	Agrilife		X	X						
	Airtel Money	X	X	X	X	X		X		X
	M-PESA	X	X	X	X	X	X	X		X
	Orange Money	X	X	X	X			X		
	Tangaza Pesa Mobile Money Transfer	X	X	X	X					X
	Yucash	X	X		X					
TZA	Airtel Money	X	X	X	X					
	ezyPesa	X			X	X				
	Tgo Pesa	X	X	X	X		X			
	Vodacom M-pesa	X	X	X	X	X	X		X	

Source: Groupe Speciale Mobile Association 2014; Mobile Money for the Unbanked Deployment tracker.

Note: Three-letter International Organization for Standardization abbreviations used for country names.

P2P = peer to peer.

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