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# Africa Current Issues

Digital Financial Inclusion in Africa:  
An Analytical Assessment of Kenya & Nigeria

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## Digital Financial Inclusion in Africa: An Analytical Assessment of Kenya & Nigeria

### Introduction

Financial inclusion aims to ensure access to and usage of financial services by all. This model plays an increasingly important role in economic development. The digital financial services (DFS) trend promises to provide access to the majority of Africans.<sup>1</sup> However, inclusion in DFS schemes varies by region and country. East Africa, especially Kenya, leads. Other regions on the continent are playing catch-up. In West Africa, Nigeria is in front. Nigeria recently approved guidelines that allow payment service banks (PSBs) to provide mobile money-type services. However, the Nigerian initiative did not allow PSBs to provide loans. Kenya’s relatively advanced digital mobile lending sector confronts serious issues with predatory lending practices. Table 1 profiles indicators for groups of countries at three levels of development.

<b>Table 1: Key financial &amp; development indicators (2017 or latest available)</b>			
	Sub-Saharan Africa	Low & Middle Income	High Income
<b>Bank or mobile money account (% of population ages 15+)</b>	43	63	94
<b>ATMs (per 100,000 adults)</b>	6	27	68
<b>Commercial bank branches (per 100,000 adults)</b>	5	9	20
<b>Fixed broadband subscriptions (per 100 people)</b>	1	9	31
<b>GDP per capita, PPP (current international \$)</b>	3,730	10,345	45,789
<b>Mobile cellular subscriptions (per 100 people)</b>	73	96	126

Source: World Bank

The World Bank envisions that “financial inclusion means that individuals and businesses have access to useful and affordable financial products and services that meet their needs – transactions, payments, savings, credit and insurance – delivered in a responsible and sustainable way.”<sup>2</sup> The Bank’s Universal Financial Access by 2020 (UFA2020) initiative aims for all adults – a third of whom do not now have a basic transaction account – to have “access to a transaction account or an electronic instrument to store money, send payments and receive deposits as a basic building block to manage their financial lives” by 2020.<sup>3</sup>

The many barriers to universal financial inclusion, including access, cost and complexity, are high. A traditional retail bank spends hundreds of dollars to obtain each new customer, and does not view the unbanked poor as a viable demographic. The advent of mobile financial services (MFS) promises to overcome these barriers. The ubiquitous, relatively cheap and easy to use mobile phone provides a platform for the delivery of financial services. MFS has a powerful potential to enable financial inclusion.

Published academic research focuses on payments & remittances and the early stages of the MFS value chain, such as readiness. Little is known about savings & loans services and the later value chain stages of availability, uptake and impacts. The jury is still out on whether MFS actually addresses the needs of the unbanked poor.<sup>4</sup> Evidence supporting the positive effects of MFS on financial inclusion in Africa is largely anecdotal.

Studies reveal that the same factors motivate adoption of mobile financial services and traditional banking. MFS adopters tend to already have a relationship with a formal financial institution.<sup>5</sup> Thus, the

unbanked poor may not find MFS either accessible or advantageous.<sup>6</sup> Little wonder that many MFS initiatives in developing countries have performed below expectations.<sup>7</sup>

This article takes a critical look at developments in two key regional economies: Nigeria and Kenya. The former recently enacted a new policy on payments, while the latter faces several serious issues arising from weak governance of digital credit.

### The decision tree framework

The Claessens & Rojas-Suarez (2020) “*Decision Tree for Digital Financial Inclusion Policymaking*” is an analytical framework (or “*decision tree*”) used to evaluate the barriers to financial inclusion in country-specific settings. This tool can be used to assess both supply and demand factors that drive digital financial services. An assessment of the market structure, infrastructure and returns allows insights into the supply dynamics for a particular DFS type (payments, store of value or credit) for a specific country. Similarly, the framework explores how consumers view the benefits of DFS, their level of trust in providers, and their level of income. These factors enable identification and assessment of the drivers of demand for DFS in a specific country.

Application of the framework also identifies the binding constraints on either side and provides clarity on the fit between current policies and issues weighing on increasing financial inclusion in the subject country. This provides a basis for considering new measures to tackle current constraints. Firms considering investment in the sector can also use the decision tree framework to assess DFS opportunities in countries of interest.

<b>Box 1: Claessens &amp; Rojas-Suarez (2020) “Decision Tree for Digital Financial Inclusion Policymaking</b>		
	<b>Supply</b>	<b>Demand</b>
<b>Constraint</b>	Limited provision of financial services by banks & digital service providers (DSPs) to large segments of the population	Limited demand for financial services
<b>Factors</b>	<ol style="list-style-type: none"> <li><b>1. Market structure of banks, telecoms &amp; other DSPs</b> <ol style="list-style-type: none"> <li>a. Uneveled playing field, inadequate rules               <ul style="list-style-type: none"> <li>- <i>Country-specific rules (laws, restrictions, etc.)</i></li> </ul> </li> <li>b. Limited competition               <ul style="list-style-type: none"> <li>- <i>Bank concentration (H statistic, HHI, etc.)</i></li> <li>- <i>Interoperability (ATMs, POS, etc.)</i></li> </ul> </li> </ol> </li> <li><b>2. Insufficient or poor private digital infrastructure</b> <ol style="list-style-type: none"> <li>a. <i>Mobile coverage</i></li> <li>b. <i>Reliability of mobile networks</i></li> <li>c. <i>Spread of internet,</i></li> <li>d. <i>POS spread</i></li> <li>e. <i>Number &amp; spread of ATMs</i></li> <li>f. <i>Cost of internet</i></li> </ol> </li> <li><b>3. Low appropriability of returns</b> <ol style="list-style-type: none"> <li>a. Poor institutional quality &amp; governance</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li><b>1. Perceived low or no benefits of usage</b> <ol style="list-style-type: none"> <li>a. Financial literacy               <ul style="list-style-type: none"> <li>- <i>World Bank digital adoption index</i></li> <li>- <i>Networked readiness index</i></li> </ul> </li> <li>b. Findex data</li> <li>c. Country surveys</li> </ol> </li> <li><b>2. Low trust in providers</b> <ol style="list-style-type: none"> <li>a. Country surveys</li> <li>b. Reported theft at ATM, bank branch</li> <li>c. Fraud</li> <li>d. Macroeconomic instability</li> </ol> </li> <li><b>3. Low income, geography</b> <ol style="list-style-type: none"> <li>a. Country financial inclusion surveys</li> <li>b. Findex survey</li> <li>c. Average time to ATM, bank branch</li> </ol> </li> </ol>

	<ul style="list-style-type: none"> <li>- <i>World Bank governance indicators</i></li> <li>- <i>World Bank doing business ranking</i></li> <li>- <i>WEF competitiveness report</i></li> <li>- <i>PRS Group country risk guide</i></li>   <li>b. Distortionary policies <ul style="list-style-type: none"> <li>- <i>Distortionary taxes (VAT, stamp duty, etc.)</i></li> </ul> </li>   <li>c. Problems identifying customers <ul style="list-style-type: none"> <li>- <i>Digital IDs</i></li> <li>- <i>KYC requirements</i></li> <li>- <i>Documentation required</i></li> </ul> </li> </ul>	
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Source: Adapted from Claessens & Rojas-Suarez (2020)

The decision tree framework provides the lens used in this paper to identify binding constraints on financial inclusion in two countries of interest, Nigeria and Kenya. For Nigeria, we assess developments up to the point that led to the licensing of payment service banks (PSBs), and evaluate whether they would actually be able to overcome these constraints. For Kenya, we apply the framework to assess the authorities' plans to curb the predatory practices of digital lenders.

### Curbing predatory digital lending in Kenya

Eighty-three per cent of Kenyans are now engaged in the formal financial system, up from 27 per cent in 2006.<sup>8</sup> Mobile money, financial innovation and supportive government policies enabled this remarkable success. Kenya's pioneering M-Pesa mobile money service, launched in 2007 and a huge factor in this remarkable story, exemplifies this feat.<sup>9,10</sup> The new service enjoyed support from the telecoms-led regulatory regime from the outset. An adaptable customer-centric business model and emotive marketing also played roles. Just one year after launch, the 2008 electoral violence in Kenya left the M-Pesa service as the only viable channel for payments to rural areas and beyond.

Unsurprisingly, Kenya is currently enjoying a boom in digital mobile lending. This is the next logical stage after payments. According to the 2019 FinAccess household survey, about 14 present of Kenyan adults have taken a digital loan at one point or another, via either mobile banking or an app. There are downsides, however. With loans easily accessed at the press of a button, what should be good news on the financial inclusion front is increasingly a source of concern.

<b>Table 2: Borrowing behaviour of Kenyans</b>	
<b>Type of borrowing</b>	<b>% Adults that borrowed</b>
<b>Borrowed or attempted to borrow in the past year from any source</b>	56.8
<b>Borrowed from a bank or non-bank financial intermediary in the past 12 months (non-digital)</b>	8.6
<b>Borrowed from social network, shopkeepers, chama, employer or buyer in the past 12 months</b>	45.5
<b>Borrowed digitally in past 12 months</b>	13.6

Source: 2019 FinAccess Household Survey

Digital loan defaults are on the rise. Nearly 30 per cent of the total become defaults, according to a recent FinAccess survey. When asked, 26 per cent of mobile phone banking loan defaulters attribute their default to a lack of understanding of the terms, with another 28 per cent reporting failure to meet their obligations because interest or repayment rates went up. Digital app loan defaulters, at 7 per cent and 12 per cent respectively also cited these reasons. The Central Bank of Kenya (CBK) has raised concerns about the seemingly predatory practices of digital lenders. Their mostly poor customers, who must pay exorbitant interest rates, increasingly find the debt burden beyond their capacity.<sup>11</sup>

Digital loans are the most used type in Kenya, with an average of eight loans per borrower. This is significantly higher than the 1.2 loans per borrower at commercial banks.<sup>12</sup> Digital borrowers attribute convenience for their patronage. Borrower trust for digital banks is no greater than for traditional banks; which is very little. The demographics of Kenyan digital borrowers are distinctive: male (60 per cent), urban (67 per cent) and young, aged below 35 (62 per cent). Digital borrowers reportedly borrow more, sell assets, or cut expenditure on crucial needs to repay loans.

Source of loan	Number of loans per person
Mobile bank/app	8.0
Social network	2.9
Money lender	2.0
Chama	1.9
Government	1.4
SACCO/MFI	1.3
Commercial bank	1.2
Hire purchase	1.0
Shopkeeper	0.3

Source: FSD Kenya

Therefore, even as financial inclusion increased to much acclaim, the financial health of Kenyans has decreased, with only about a fifth of the adult population believed to be in good financial health. Additionally, regulatory authorities find increasing use of mobile lenders as conduits for money laundering.<sup>13</sup> To address these concerns, the central bank and finance ministry plan to use law to sanitize the system.<sup>14</sup> However, this path carries the risk of disabling the very elements that made the Kenyan financial inclusion revolution remarkable. Might tighter regulation create a reversal of fortunes? We can use the decision tree framework to answer this question.

	Supply	Demand
<b>Constraint</b>	Predatory supply of digital loans by DSPs to a large segment of the population	Ample demand for digital financial services
<b>Factors</b>	<p><b>Domestic savings: Low</b> 5.3% of GDP (2018)<sup>15</sup></p> <p><b>Access to international finance: High</b> Foreign debt: 52% of total debt (Sept 2019)</p> <p>Financial markets: Efficient - <i>Relatively advanced for the continent</i><sup>16</sup></p>	<p><b>High costs</b> Interest rate of 9% by banks per annum vs. rates as high as 43% or more per month by digital lenders<sup>17,18</sup></p> <p><b>Perceived low or no benefits of usage</b></p>

<p>- <i>No controls on foreign exchange; control laws repealed in 1993</i><sup>19</sup></p> <p><b>Market structure of banks, telecoms &amp; other DSPs</b></p> <p><u>Playing field &amp; Rules: Not level</u></p> <p>- <i>Digital lenders have significant leeway; not regulated like banks.</i><sup>20</sup>          - <i>Customers have little or no protections.</i><sup>21</sup>          - <i>Proposed CBK law seeks to change that.</i><sup>22</sup></p> <p><u>Level of competition: High</u></p> <p>- <i>Bank concentration (37% in 2017)</i><sup>23</sup>          - <i>Good interoperability (ATMs, POS, etc.) in Kenya &amp; with switches in Rwanda, Tanzania &amp; Uganda</i><sup>24</sup></p> <p><b>Digital infrastructure: Above Average</b><sup>25</sup></p> <p><i>Mobile coverage (SIM penetration level &gt; 100%)</i></p> <p><i>Reliability of mobile networks</i></p> <p><i>Spread of internet (c. 100%)</i></p> <p><i>Cost of internet (7<sup>th</sup> cheapest in Africa)</i><sup>26</sup></p> <p><b>Appropriability of returns: High</b></p> <p><u>Institutional quality &amp; governance: Average</u></p> <p>- <i>World Bank governance indicators (Score from -2.5 to 2.5, Rank from 0 to 100)</i><sup>27</sup></p> <ul style="list-style-type: none"> <li>- <i>Regulatory quality (-0.23, 43.75)</i></li> <li>- <i>Government effectiveness (0.41, 38.94)</i></li> <li>- <i>Rule of law (-0.41, 37.98)</i></li> <li>- <i>Control of corruption (-0.85, 19.23)</i></li> </ul> <p>- <i>World Bank doing business 2020 score &amp; ranking (73.2, 56/190)</i><sup>28</sup></p> <p>- <i>WEF global competitiveness report 2019 score &amp; ranking (54.1, 95/141)</i><sup>29</sup></p>	<p><u>Financial &amp; digital literacy</u></p> <p>- <i>World Bank digital adoption index (0.45)</i><sup>30</sup></p> <p><b>Low trust in providers</b></p> <p><u>Reported theft at ATM, bank branch</u></p> <p>- <i>Brazen thefts reported</i><sup>31</sup></p> <p><u>Fraud</u></p> <p>- <i>58% of Kenyans experienced economic crimes in the past 2 years (vs global average of 47%)</i><sup>32</sup></p> <p><u>Macroeconomic trend &amp; outlook</u></p> <p>- <i>Stable</i><sup>33</sup></p> <p><b>Low income, geography</b></p> <p><u>Poverty level</u></p> <p>- <i>35.6% below poverty line (2015/16)</i><sup>34</sup></p>
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	<p><u>Distortionary policies: Average</u></p> <ul style="list-style-type: none"> <li>- <i>Taxes: VAT (0-16%), stamp duty (0-4%)<sup>35</sup></i> <i>(Compare – South Africa: VAT (15%), stamp duty (N/A))</i></li> </ul> <p><u>Problems identifying customers: Average</u></p> <ul style="list-style-type: none"> <li>- <i>Digital IDs (“Huduma Namba” registration ongoing; delays on litigation, covid-19, etc.)<sup>36</sup></i></li> <li>- <i>KYC &amp; documentation requirements relatively standard</i></li> </ul>	
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Source: Adapted from Claessens & Rojas-Suarez (2020), Communications Authority of Kenya

In Kenya, supply constraint on financial inclusion through digital credit services relates to the predatory practices of digital lenders. While banks also provide digital loans and follow the same rules as they would for traditional loans, non-bank digital lenders do not face similar constraints. As shown in Box 2, Kenya’s low domestic savings is more than offset by its relatively easy access to international finance for both its public and private sectors. Its financial markets are quite efficient and relatively advanced for the continent. Kenya does not control the flow of capital in and out of the country, having abandoned its restrictive foreign exchange laws around 1993.

Continuing predatory practices by digital lenders suggests the perpetrators of abuse do not fear punishment. It seems abundantly clear such negative behaviour would be likely to change in the face of stricter regulations. In this sense, our analysis does support the need for the robust rules the Kenyan financial authorities seek to put in place.

The evidence also suggests limited choice for consumers, perhaps due to cartel behaviour. There is certainly abundant room for more competition. A digital lender that abides by the strict rules to which banks are subject would clearly have a competitive advantage in the current no-holds barred regulatory environment. Even when the new rules are in place, firms that hold themselves to a higher standard would likely be rewarded by customer loyalty and perhaps by more influence with the authorities.

Kenya’s digital infrastructure is above average by the continent’s standards, despite its shortcomings. Internet coverage is wide and data subscription costs are relatively low. Institutional quality and governance are among the best in East Africa. Tax policies are no more distortionary than for African peer countries. Every Kenyan will have a digital identification number linked to biometric data in the not too distant future. Thus, due-diligence and Know-Your-Customer (KYC) requirements will not be significant constraints.

There is ample demand for digital credit services in Kenya, especially among male and young urbanites. Nevertheless, the high cost of acquiring credit is clearly a major drawback. While prohibitive digital lending rates (more than 40% a month in some cases) should be a huge disincentive, custom remains buoyant. However, default rates are rising. There is an urgent need for greater financial and digital literacy. Even if digital borrowers actually read and understand the (often obscure) fine print, they probably have little choice in the matter. Stricter regulation is a common sense solution.

In sum, the analysis suggests that with rules that are more robust and lower costs, digital credit services will bring greater financial deepening to Kenya. Digital credit, if properly governed and executed, is a

potentially lucrative gap that more responsible firms can fill. Mobile credit is a natural step to follow the prior success with digital payments.

### Will Nigeria's payment service banks fill the gap?

West African countries, once considered laggards, are now the continent's new growth markets.<sup>37</sup> In 2012, Nigeria aimed to bank over 80 per cent of its adult (15 years or older) population by 2020.<sup>38</sup> Despite myriad initiatives in this regard, like microfinance banking, agent banking, tiered Know-Your-Customer (KYC) requirements and mobile money operations, only about 60 per cent have been financially included.<sup>39,40</sup> In furtherance of its 2020 objective, the Nigerian central bank announced guidelines for so-called payment service banks (PSBs) in October 2018. In this regard, telecommunications companies and other non-bank firms would be allowed to provide financial services along set parameters, with licenses issued from about a year later.<sup>41,42</sup>

	Focus Areas	Target by 2020	2010	2012	2014	2016	2018	Variance to 2020 target
% of Total Adult population	Payments	70%	22%	20%	24%	38%	40%	-30%
	Savings	60%	24%	25%	32%	36%	24%	-36%
	Credit	40%	2%	2%	3%	3%	2%	-38%
	Insurance	40%	1%	3%	1%	2%	2%	-38%
	Pension	40%	5%	2%	5%	7%	8%	-32%
	<b>Financial Exclusion</b>	<b>20%</b>	46.3%	39.7%	39.5%	41.6%	36.8%	-16.8%

Source: EfnA Access to Financial Services in Nigeria Survey<sup>43</sup>

Payment service banks will provide most financial services, except giving out loans, trading foreign exchange other than payments and remittances, and underwriting insurance. Payment service banks (PSBs) target the financially excluded and operate mostly in unbanked rural areas. They provide access to deposit and payments services through a secured technology-driven environment. PSBs can deploy automated teller machines (ATMs) as well as point of sale (POS) devices in their target areas. The major policy shift, however, is that non-bank or non-financial institutions can be PSBs. There are currently (at the time of writing) three approved PSBs. Their number is likely to increase in the near future, with mobile phone firms signalling intent.<sup>44</sup> Much of the excitement around PSBs revolves around mobile telecom firms. With 184 million active subscribers, they reach about 92 per cent of the country's estimated 200 million people.<sup>45</sup>

Permissible Activities	Non-permissible activities
Savings accounts	Loans, advances & guarantees
Deposits	FX trading ex-payments & remittances
Payments & Remittance	Insurance underwriting
Debit & pre-paid cards	
Electronic purse	
Invest in government securities	

Source: CBN

Enthusiasm for universal financial inclusion is high, with the plans to bring the remainder of Nigeria's still significantly unbanked adult population to join the financial system.<sup>46</sup> Will this really come to pass? After all, previous initiatives proved to be disappointing. Besides, bank-led regulatory models, as adopted by Nigeria and many other African economies, have not been as successful as the telecoms-



led model. While the Kenyan case shows digital lending as fraught with myriad risks, would barring PSBs from lending not constrain the financial inclusion objective? We proceed to answer these questions.

<b>Box 3: Determinants of inadequate financial inclusion using digital payment/transfer services &amp; regulatory solutions in Nigeria</b>		
	<b>Supply</b>	<b>Demand</b>
<b>Constraint</b>	Limited provision of digital payment services	Limited demand for digital payment services
<b>Factors</b>	<p><b>Market structure of banks, telecoms &amp; other DSPs</b></p> <p><u>Playing field &amp; Rules: Not level</u></p> <ul style="list-style-type: none"> <li>- Rules are more favorable to banks (PSBs are not allowed to issue loans, for instance)</li> </ul> <p><u>Level of competition: High</u></p> <ul style="list-style-type: none"> <li>- Bank concentration: High; 7 banks hold more than half of assets, with single largest bank market share of 14-15%. But HHI less than 800 suggests industry is still competitive<sup>47 48</sup></li> <li>- Good interoperability (ATMs, POS, etc.)<sup>49</sup></li> </ul> <p><b>Digital infrastructure: Above Average</b><sup>50</sup></p> <p>Mobile coverage (98% teledensity)</p> <p>Reliability of mobile networks (Good)</p> <p>Spread of internet (129 million subscribers vs. 200 million population)</p> <p>Cost of internet (Average)</p> <p><b>Appropriability of returns: High</b></p> <p><u>Institutional quality &amp; governance: Average</u></p> <ul style="list-style-type: none"> <li>- World Bank governance indicators (Score from -2.5 to 2.5, Rank from 0 to 100) <ul style="list-style-type: none"> <li>- Regulatory quality (-0.88, 17.31)</li> <li>- Government effectiveness (-1.02, 14.9)</li> <li>- Rule of law (-0.88, 18.27)</li> <li>- Control of corruption (-1.04, 13.46)</li> </ul> </li> </ul>	<p><b>Perceived low or no benefits of usage</b></p> <p><u>Financial literacy</u></p> <ul style="list-style-type: none"> <li>- World Bank digital adoption index (0.42)</li> </ul> <p><b>Low trust in providers</b></p> <p><u>Fraud</u></p> <ul style="list-style-type: none"> <li>- High fraud incidents across payment channels<sup>51</sup></li> </ul> <p><u>Macroeconomic trend &amp; outlook</u></p> <ul style="list-style-type: none"> <li>- Stable</li> </ul> <p><b>Low income, geography</b></p> <p><u>Poverty level</u></p> <ul style="list-style-type: none"> <li>- 69% live below national poverty line<sup>52</sup></li> </ul>

	<ul style="list-style-type: none"> <li>- <i>World Bank doing business 2020 score &amp; ranking (56.9, 131/190)</i></li> <li>- <i>WEF global competitiveness report 2019 score &amp; ranking (48.3, 116/141)</i></li> </ul> <p><u>Distortionary policies: Average</u></p> <ul style="list-style-type: none"> <li>- <i>Taxes: VAT (7.5%), stamp duty (0.75%)<sup>53</sup></i></li> </ul> <p><u>Problems identifying customers: Average</u></p> <ul style="list-style-type: none"> <li>- <i>Digital IDs (None; but Bank Verification Numbers (BVNs) are reliable)</i></li> <li>- <i>KYC requirements (Tiered KYC requirements to ease inclusion)</i></li> </ul>
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Source: Adapted from Claessens & Rojas-Suarez (2020)

Our analysis in Box 3 suggests PSBs may not necessarily offer anything that banks do not already provide via the same channels. DFS users already have a bank account or formal relationship with a financial institution. PSBs might find it hard to compete if the rules were more favourable to banks. Still, while Nigeria has a highly concentrated banking industry, with seven banks controlling more than half of the industry's assets, its Herfindahl-Hirschman Index (HHI) of less than 800 suggests the industry is competitive.

The country's digital infrastructure is also above average, with good Internet reach and reasonable costs. Digital identification numbers are not yet in place. However, the banking industry already has a system in place called "bank verification numbers" (BVNs) for its own use. Requirements at the lower end of Nigeria's three-tier KYC model were relaxed for greater financial inclusion. The evidence suggests these initiatives did not spur growth in activity at the desired pace.

With more than half of the Nigerian population living below the national poverty line, low income is clearly a binding constraint on greater financial inclusion. Financial and digital literacy levels are relatively low as well. There are also issues of low trust in the providers of financial services in general. There is evidence of high incidence of fraud across all payment channels, for example.

In light of the binding constraints as identified, the key question is then whether PSBs are a viable solution. The answer is that clearly they are not viable in their present form. Yes, mobile telecom firms also have their biometric database, with more registrants than in the banking system. However, they will not help achieve the government's financial inclusion objectives unless they offer something significantly different from banks, and focus on potential customers likely not to already have a bank account.

PSBs would offer a far better value proposition if they could make loans. Thus, already licensed PSBs should make the case for a broader bouquet of services to the authorities. Firms looking to venture into the sector might wait until the regulations allow for this.

## Conclusions

Digital financial services are engendering greater financial inclusion in Africa. Of course, the pace could be faster. Still, some countries are succeeding more than others. Kenya is an exemplar, seeking to replicate its significant progress in payments in credit services.

Unsavoury practices by Kenyan digital lenders are a barrier to progress, however. As our analysis reveals, the authorities' recent move to regulate digital lending more strictly is justified. Our analysis also suggests there are opportunities for more responsible digital lenders in Kenya.

For Nigeria, we find PSBs may not be correctly positioned to drive financial inclusion under the current regulatory regime. First, low incomes are a major binding constraint. A tilted playing field, with banks holding most of the cards, is another. PSBs should be allowed as much or more leeway as banks. Thus, firms interested in this dynamic sector might best wait for new and more favourable rules.

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