

Stijns, Jean-Philippe; Borysko, Sofiia; Marchitto, Barbar

## Research Report

# Banking in Sub-Saharan Africa: Interim report on digital financial inclusion

Regional Studies and Roundtables

## Provided in Cooperation with:

European Investment Bank (EIB), Luxembourg

*Suggested Citation:* Stijns, Jean-Philippe; Borysko, Sofiia; Marchitto, Barbar (2017) : Banking in Sub-Saharan Africa: Interim report on digital financial inclusion, Regional Studies and Roundtables, European Investment Bank (EIB), Luxembourg

This Version is available at:

<https://hdl.handle.net/10419/179452>

### Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

### Terms of use:

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*



# Banking in sub-Saharan Africa

## Interim Report on Digital Financial Inclusion





# Banking in sub-Saharan Africa: Interim Report on Digital Financial Inclusion

November 2017

## **Banking in sub-Saharan Africa: Interim Report on Digital Financial Inclusion**

### **About the Report**

This report summarizes the discussions held in the context of the Roundtable on Digital Financial Inclusion in Africa during the 2017 EIB Africa Day, which was co-organized in Berlin on July 6th, 2017 by the EIB, Afrika-Verein der Deutschen Wirtschaft and the German Federal Ministry for Economic Cooperation and Development. It aims at providing an interim thematic update in between two editions of the EIB's Study of Banking Sectors in sub-Saharan Africa.

### **About the Economics Department of the EIB**

The mission of the EIB Economics Department is to provide economic analyses and studies to support the Bank in its operations and in the definition of its positioning, strategy and policy. The Department, a team of 40 economists, is headed by Debora Revoltella, Director of Economics.

### **Contributors:**

This report was prepared by Jean-Philippe Stijns, Senior Economist, with research assistance from Sofiiia Borysko, under the supervision of Barbara Marchitto, Head of Country and Strategy in the Economics Department of the European Investment Bank.

The EIB Economics Department is grateful to the panellists for their input and feedback on earlier drafts of this paper.

The EIB wishes to thank the following organisations for the use of photographs:

© Afrika-Verein Veranstaltung, © M-BIRR.

© European Investment Bank, November 2017.

### **Disclaimer:**

The views expressed in this publication are those of the authors, reflecting the contributions of roundtable panellists, and do not necessarily reflect the position of the EIB.

## Executive Summary

Mobile and digital technologies have helped boost financial inclusion in sub-Saharan Africa significantly in recent years. The percentage of adults with an account rose from 24% in 2011 to 34% in 2014.<sup>1</sup> Mobile money services provided by FinTechs and Telcos are increasingly filling the gaps left by traditional banks.<sup>2</sup> Mobile money services do not require the same investment in branch infrastructure as traditional banks and agent banking serves low-population density areas at a significantly lower cost than traditional banks. Digital finance still has untapped potential in SSA, provided financial services are tailored to local context and end-user characteristics.

The EIB roundtable on Digital Financial inclusion in SSA addressed how to engage the bottom of the pyramid, including female entrepreneurs and MSMEs. There is a need to strike the right balance between leveraging opportunities and managing risks. Issues of trust, financial capability, regulation, compliance and inter-operability loom large. The role that FinTechs and banks can play in inclusive finance crucially depends on the features of the market in which they operate. Reaching the bottom of the pyramid requires client-centred innovation and the design of products targeting minorities and vulnerable segments of society, including older and disabled people and recognising gender as an additional layer of inequality. Innovative uses of transactional and alternative data can cater digitally to entrepreneurs, and new forms of collaboration between banks, supply chains and FinTechs will continue to emerge.

Reaping the full benefits of digital financial inclusion in SSA requires a comprehensive and coherent multi-stakeholder approach. Such an approach must include the development of a shared vision for digital finance, in which partners play to their different strengths, with support from national government and the aim of providing inter-operable, adaptive and scalable solutions. To build trust between the stakeholders, policy-makers need to articulate and clearly communicate policy objectives and foster domestic and international collaboration, including in terms of peer learning. Consumer protection and supervision ought to keep pace with the rapid changes in the industry. Policy-makers should be pro-technology whilst remaining technologically neutral. This means that regulators should encourage technological innovation with an eye to consumer protection and financial stability but refrain from using regulations as a means to push the market towards a particular structure. Rather, they should leave it to market players to adopt whatever technology is most appropriate, making sure that the same regulatory principles apply to all types of market players.

Platforms such as the G20's GPMI have the potential to identify and share promising examples, strengthen networks, promote collaboration and peer-to-peer learning and pave the way for successful implementation. IFIs/DFIs should take part in the global dialogue on digital financial inclusion and support the development of digital finance infrastructure.

---

<sup>1</sup> For 2011, this figure covers accounts at a bank or other types of financial institution, and for 2014 it also covers mobile accounts.

<sup>2</sup> FinTech is used in this paper in its broadest definition as any new technology, software and innovation used to support or enable banking and financial services, typically via mobile phones, in sub-Saharan Africa. Telco is short hand for Telephone Company, a provider of telecommunications services, such as telephony and data communications.



## Introduction

Marking the 2017 Africa Day co-hosted in Berlin on 6 July by the EIB, Afrika-Verein der deutschen Wirtschaft and the German Federal Ministry for Economic Cooperation and Development, the EIB organised a roundtable on Digital Financial Inclusion in Africa. Digital solutions have helped expand financial inclusion. A lot has been achieved in a relatively short time. However, much remains to be done and the pace of digital financial inclusion has varied in different African countries. Against this backdrop, the panel addressed the key challenges and opportunities associated with digital financial inclusion from the perspective of consumers, SMEs, financial market players and policy-makers.

The session was moderated by Barbara Marchitto, Head of Country and Financial Sector Analysis at the EIB Economics Department. Six panellists took turns to deliver key messages from their different perspectives and to answer questions from the floor. Volker Hey (Senior Policy Officer, BMZ) explained the role of the Global Partnership for Financial Inclusion (GPFI) and the G20 on the eve of the 2017 G20 Hamburg meeting. David Ashiagbor (Coordinator, Making Finance Work for Africa) highlighted the broad trends, opportunities and challenges regarding digital financial inclusion in sub-Saharan African countries. Thierry Artaud, (Executive Chairman, M-BIRR), shared his company's experience of promoting digital financial inclusion in Ethiopia. Louise Holden (Head of Public Private Partnerships, MasterCard) discussed the role of public-private partnerships in promoting digital financial inclusion in sub-Saharan Africa (SSA). Kennedy Komba (Head of Strategy and Member Relations, Alliance for Financial Inclusion –AFI) laid out policy options to make financial services more accessible to the world's unbanked and to empower policy makers to increase access to quality financial services for the poorest populations. He also discussed trade-offs between stimulating innovation, providing an enabling environment and consumer protection, and made the case for the importance of institutional capacity-building. Minerva Kotei (Financial Sector Specialist, SME Finance Forum) focused on how digitalization can help to expand access to finance for small and medium-sized businesses, including women entrepreneurs.

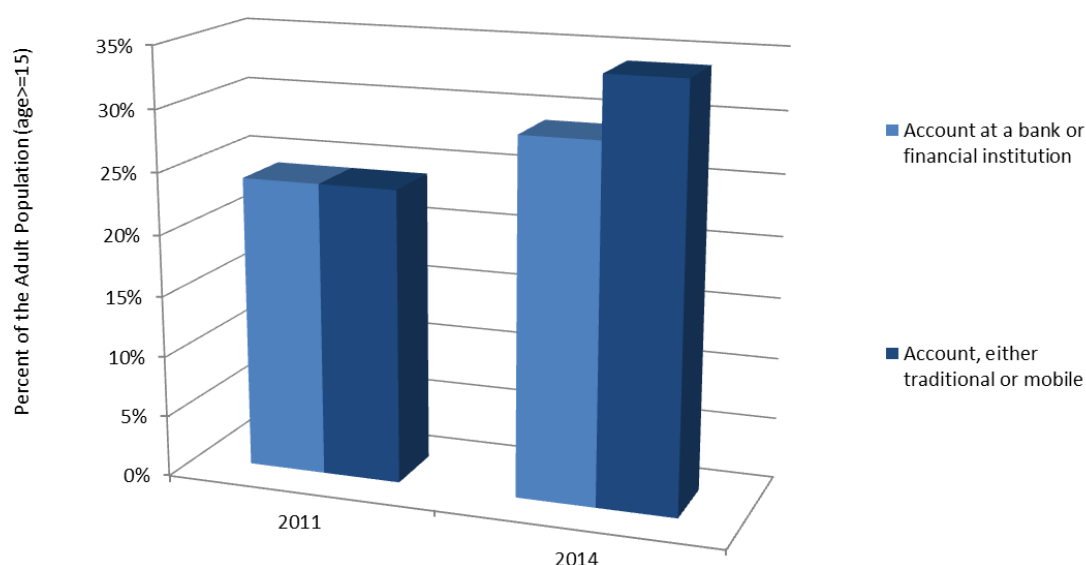




## Taking Stock of Financial Inclusion in SSA

**David Ashiagbor (MFW4A) set the scene for the discussions by indicating that out of 590 million adults in SSA, 350 million do not have access to an account at a bank or with another type of financial institution.** According to Global Findex data, financial exclusion affects a particularly high proportion of women, young people and people living in rural areas. For traditional banks, building brick-and-mortar branches in low-population density areas is typically not economically viable. Even those who do have a current account often lack access to other basic financial services, including savings accounts, loans and insurance products. With only 34% of adults formally banked, there is huge potential for the development of financial services in Africa to meet the needs of the unbanked.

**Figure 1: Account Ownership in SSA**



Source: Global Financial Inclusion Database (FINDEX) data.

**The gap is increasingly filled by FinTechs and Telcos, mainly through mobile money services. They provide a solution to the lack of infrastructure – via mobile banking – and in terms of last mile services, via agent banking.** The spread of mobile and digital technologies has already helped to significantly boost account ownership in SSA. The proportion of adults with an account, either traditional or mobile, rose from 24% in 2011 to 34% in 2014. Over the same period, the share of adults with an account at a bank or a financial institution increased from 24% to 29%. Therefore, about half of the improvement in financial inclusion is due to the expansion of the traditional banking sector, the other half to that of mobile accounts (Figure 1). This trend is accelerating and by December 2016, there were 277 million registered mobile money accounts in SSA – more than the total number of bank accounts in the region.<sup>3</sup> More than 40% of the adult population in a number of countries, including Kenya, Tanzania, Zimbabwe, Ghana, Uganda, Gabon and Namibia, use mobile money on an active basis.<sup>4</sup>

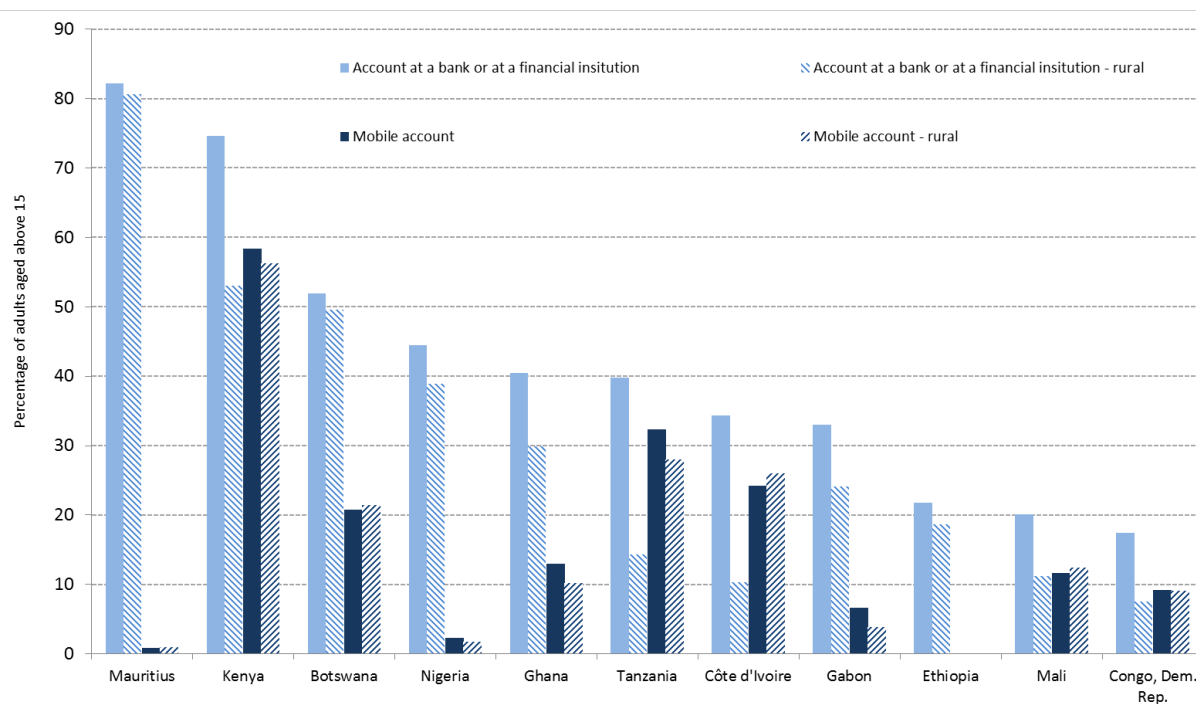
<sup>3</sup> GSMA State of the Industry Report – Decade Edition

<sup>4</sup> An active account is defined as an account that has had a transaction in the last 90 days.

**SSA is the leading region in terms of digital financial inclusion on several accounts.** In 2014, 12% of Africans had a mobile money account, compared to a global figure of 2%. Around half of the world's mobile money providers operate in SSA. Of the 35 mobile money markets of the world that have reached 1 million active accounts, more than half are in SSA. The region is not only leading in numbers, but also in innovation and knowledge-sharing. For instance, Kenya is sharing its learning with regulators and commercial banks from Latin America through the Alliance for Financial Inclusion (AFI) platform. As regards SSA, the concept of agent banking illustrates how FinTechs and traditional banks are competing and/or collaborating. The term 'agent banking' refers to a situation where a financial service provider engages third parties – including shops, service stations and post offices – to deliver financial services on their behalf. In practice, when the end-user is several kilometres away from the nearest bank branch, being able to conduct a financial transaction in a shop is extremely convenient. Mobile accounts are evolving constantly and end-users can not only transfer money but they can also obtain a loan, pay it back, save etc. As such services keep on evolving, mobile account users may never go back to or adopt traditional banking services. In some cases, it is a traditional bank that is the ultimate principal behind mobile accounts provided and serviced by agents. In other cases, Telcos or FinTechs lead the way and offer digital financial services either directly or via their own network of agents.

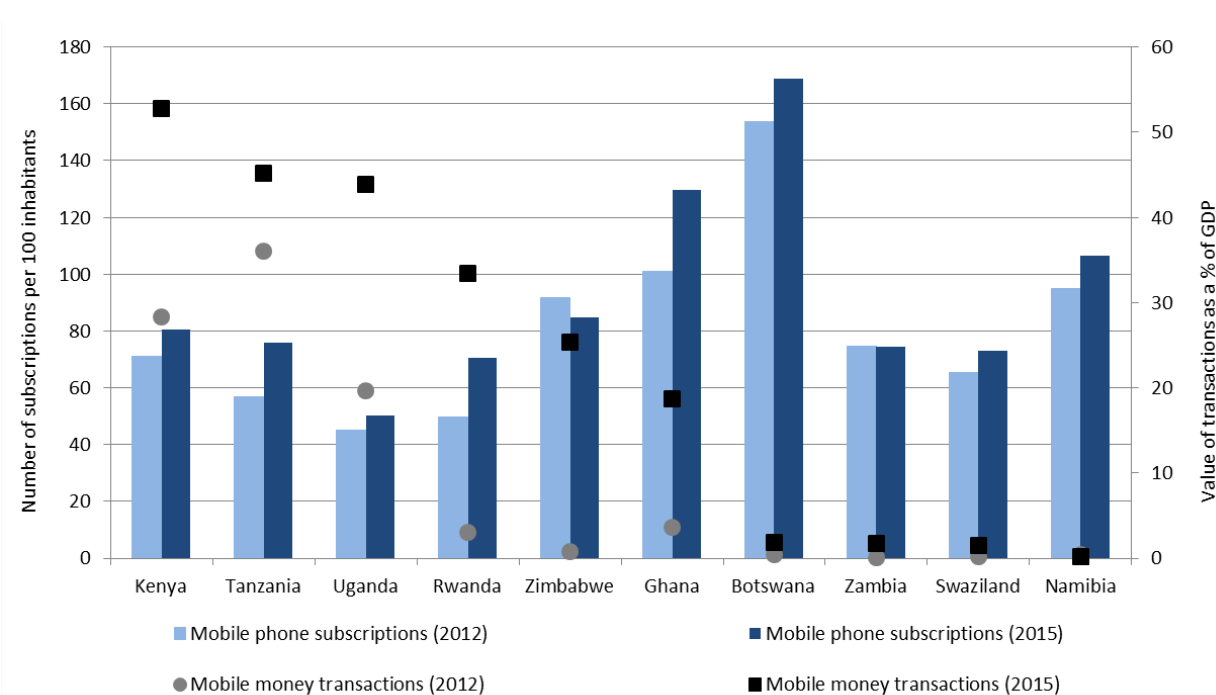
**There is, however, a striking diversity of situations with respect to financial inclusion throughout SSA. The degree and nature of financial inclusion challenges vary significantly from country to country and call for tailored financial inclusion strategies.** The case of Mauritius is rather exceptional (Figure 2 below). There, the under-development of mobile accounts can be attributed to very extensive reach through bank accounts, both in urban and rural areas. In Kenya and Botswana bank coverage is relatively good but not in rural areas where mobile accounts offer significant potential. Other countries like Tanzania and Côte d'Ivoire are compensating their rural bank account gap with rising mobile account coverage. In contrast, in countries like the DRC, Ghana, Gabon and Nigeria the rural bank account gap still represents a largely untapped opportunity in terms of digital financial inclusion. In Ethiopia, the deployment of mobile accounts is an even lower hanging fruit. Efforts to enhance digital financial inclusion in Ethiopia are discussed in detail in a later section on pp. 8-9. Correspondingly, there is a wide variety of country circumstances in terms of both mobile phone penetration and volume of mobile transactions (Figure 3 below). Most countries have seen a rise on both accounts but mobile phone subscriptions do not necessarily translate into mobile money transactions. In fact, the highest shares of mobile transactions in GDP are observed in countries like Kenya, Tanzania and Uganda, which do not stand out particularly in terms of mobile phone penetration. Conversely, in countries like Botswana and Namibia where less than two thirds of adults have a bank account, there are already more mobile phone subscriptions than inhabitants and yet the volume of mobile money transactions is strikingly low. Mobile infrastructure is not the main bottleneck everywhere and digital financial inclusion has a high unrealised potential in many countries.

**Figure 2: Bank Account vs. Mobile Account Ownership in select SSA countries (2014)**



Source: Global Financial Inclusion Database (FINDEX) data.

**Figure 3: Value of Mobile Money Transactions vs. Mobile Phone Subscriptions in select SSA countries**



Source: Financial Access Survey (FAS), IMF; International Telecommunication Union (TBC).

## Digital Financial Inclusion of SMEs and Female Entrepreneurs

**Minerva Kotei (SME Finance Forum) remarked that the SME financing gap continues to be a structural feature of developing economies.** Even in countries that have policy measures to support SMEs, the problem still prevails. According to IFC, there are about 400 million SMEs that have unmatched credit needs. About half of these are from developing markets, representing 175-220 million SMEs in developing countries with unmatched credit needs of USD 2.1-2.6 trillion. Of these, it is estimated that 81 million SMEs are based in SSA, with an outstanding credit gap of USD 132 billion. This gap represents a major credit opportunity for FinTechs, non-bank SME lenders and banks to explore. McKinsey estimates that SME banking revenues in developing markets globally totalled USD 377 billion in 2015 (Manyika, Lund, Singer, White and Berry, 2016). A profitable SME banking model that tackles key SME-financing challenges simultaneously is needed for banks to benefit from this opportunity. The key risk of SMEs, credit risk, is well known. In addition, SMEs are expensive for banks to serve, especially given the small average size of transactions and corresponding revenue per account, generating opportunities for digitization. Transactional and alternative data can help to address the SME financing conundrum (GPFI, SME Finance Forum, Germany 2017, World Bank, 2017).

**Many non-bank SME lenders are leapfrogging commercial banks by providing funding to SMEs utilising alternative data.** However, there have also been collaborations between SME lenders and banks. Both sides recognise that they have limits individually but that if they come together, opportunities arise. Digital SME lenders also partner amongst themselves, with other alternative lenders from the non-bank financial sector, and with cloud-based providers.

**There are four institutional models that rely on alternative data streams for SME lending.** The first are SME marketplace lenders. These non-bank digital lenders originate SMEs loans via platforms connecting SME borrowers to their own balance sheet or to third party investors. Their use of alternative SME data allows them to increase the pool of eligible SMEs and to simplify, speed up and lower the cost of SME credit. The second model is provided by global digital corporates who leverage their proprietary big data to offer SME finance. The third is mobile database lending platforms (e.g. Saficom, CBA's M-Shwari, Sanctuary, KCB's M-PESA, and Zuna in Zambia), which use mobile and mobile e-money services transaction history to score the creditworthiness of first-time borrowers. The fourth model is supply-chain finance platforms, which are becoming increasingly common in SSA. GoFinance in Tanzania, for instance, analyses the supply-chain structure as well as sales and delivery data within a given supply chain to provide financial solutions for SMEs. They can lend as much as USD 30k to SMEs, utilising alternative data to manage risk. Existing bank players have also launched their own database platforms, including Kenya's Equity Bank and Airtel's Equitel.

**Of the 81 million SMEs in SSA with a financing gap, 12 million have one or more female entrepreneurs.** Women-owned SMEs encounter the many challenges SMEs face to an even greater degree. It is therefore important to focus on female-owned businesses and entrepreneurs to avoid 'losing' them in the system, with the attendant opportunity costs for the economy. For women entrepreneurs, a world research ecosystem is needed to address the barriers that women face in accessing financial services. There is a need to go beyond solely reaching existing women entrepreneurs to actually make it easier for more women to become entrepreneurs by breaking down some of the barriers that they face. The SME Finance Forum is working with its FinTech

members to see how they can partner with banks to apply technological innovation to boost financial access for women entrepreneurs.

**Once again, the key is to balance equity and innovation and to ensure that there is a competitive market where SMEs can thrive and banks can add value to SMEs.** The good news is that market players have really stepped up to capture opportunities available to cater to SMEs and that the market is growing very fast. They are able to circumvent problems using machine learning and digital data to manage risk, and they are able to provide financial services very quickly and effectively. Increasingly innovative uses of transactional and alternative data to cater digitally to native entrepreneurs are to be expected. New forms of collaboration between banks, supply chains and FinTechs will continue to emerge.

## Digital Financial Inclusion: Opportunities and Challenges

**One key achievement of the G20's GPFI has been to establish a consensus that digital financial inclusion is desirable and a priority because it can boost productivity and growth, improve transparency, increase tax revenues and enhance the efficiency of public expenditure and transfers** (Better Than Cash Alliance, 2016). The four High-Level Principles for Digital Financial Inclusion are: (1) promoting a digital approach to financial inclusion, (2) balancing risk and innovation to achieve financial inclusion, (3) creating an enabling legal and regulatory framework, and (4) expanding the digital financial services infrastructure ecosystem (GPFI, 2016).

**Volker Hey (BMZ) underscored that financial inclusion empowers individuals and businesses to fully tap their potential and goes far beyond simply providing better access to financial services for individuals and SMEs.** Increasing access to adequate financial services enables people to better manage their economic lives and gives people the freedom and capability to make their own decisions so as to shape their own lives. Financial inclusion contributes to tackling inequality in an era when in-country social and economic inequalities are on the rise in many countries. It can help to reduce poverty at a time when 10% of the world's population still lives on less than USD 2/day and livelihoods are increasingly endangered by climate-related risks like floods or drought.

**For digital financial solutions to open up new opportunities, products have to be designed with the end-user in mind.** The arrival of new actors – including Telcos and FinTechs – and changing business models (based on big data, agents instead of bank branches etc.) brings new challenges and risks, both from a private sector and policy-maker's perspective. Originally, FinTechs were expected to disrupt or even supplant traditional banking models. Incumbent financial institutions are indeed under enormous pressure to cut the cost of their services (World Economic Forum, 2017). However, collaboration between banks and FinTechs is becoming the norm rather than the exception as FinTechs leverage banks to achieve scale and banks acquire FinTechs to obtain innovative technology at between a third and a quarter of the cost of in-house development (Kelly, Ferenzy and McGrath, 2017).

**From a regulatory and supervisory perspective, a first set of challenges concerns trust and consumer confidence. Striking the right balance between leveraging opportunities and safeguarding against risks is critical to reaping the benefits of digital finance.** Unfortunately, regulatory and supervisory capacity has generally not kept pace with changing market dynamics. Trust in digital financial services is under threat by a number of challenges including agent fraud, system failure, weak data security and privacy, and questionable safety of customer funds, particularly where non-bank players are involved. Technological advances carry with them significant compliance issues, including Know Your Customer and AML-CFT procedures, especially in countries with ineffective identification. These advances also create challenges in terms of maintaining a level playing field for service providers.

**Consumer data protection, privacy and insolvency risks need to be addressed, especially given the vulnerability of customers and the common lack of financial education and awareness.** Consumers need to gain trust as this is new technology for most of them and they need to understand what will happen to their funds in the event of insolvency. For instance, in the case of a non-bank financial intermediary with funds sitting in a trust account, what happens with the funds in case the Telco runs into insolvency issues? Further, the integration of Telcos and non-banks in the financial system

raises the question of the ownership of the data created by mobile banking. Where regulation of market conduct is ineffective, digital financial service agents may abuse the process or have a negative customer relationship. This can have negative effects on the ecosystem and on future adoption of similar services or products.

**Supervising the agent-principal relationship is also a challenge, considering the importance of market behaviour and consumer protection.** Generally, in the agent-principal relationship, monitoring and penalties are supposed to be provided by the principal. As agents are managed by the principal, the latter should therefore be liable in the event of any misconduct committed by the agent. However, the wider the network of agents, the more challenging the monitoring of agent behaviour becomes and the higher the odds of abusive practice affecting end-users. In response, regulators and supervisors have innovated and started sampling agents, penalising those that get caught, and creating reporting mechanisms through which consumers can lodge a complaint. There are good examples of Memoranda of Understanding (MoU) between the Central Bank, which regulates financial intermediaries, and MNO regulators, which regulate the digital side of the product. In most SSA countries, the court system may not provide an efficient mechanism to resolve commercial or consumer-related disputes. Alternative dispute resolution mechanisms codified in the regulation can offer solutions to these inefficiencies.

**The second set of challenges has to do with inclusion. Distribution outlets can be insufficiently accessible and acceptance by target populations low.** Banks have been slow to engage with Telcos to develop more inclusive services and products. A third of all mobile money accounts are inactive, meaning that they have not seen any transactions for 3 months. This raises the question as to whether inclusion should be defined as having a point-of-access or, rather, services that customers actually use, be they savings, credit or insurance services. Trust in digital financial services can be enhanced by paying attention to financial risks and the take-up of digital financial services at the bottom of the pyramid, boosted by ensuring that regulation safeguards the interests and rights of the poorest end-users. Biometrics can address many of the issues associated with the lack or unreliability of identity mechanisms while digital footprints can be used as a source of credit referencing. As a corollary, regulators need to ensure that digital identities are not abused. Regulatory supervision for data management, i.e. the collection, storage and protection of data, must be provided. The issues of identity protection and cybersecurity are critical.

**Kennedy Komba (AFI) emphasised the importance of clearly articulating the policy objectives, of promoting proportionality and a risk-based approach to regulation, and of data in decision-making, product design and policy reforms.** Some countries have articulated their policy objectives within the law itself, giving the Ministry of Finance or the Central Bank the remit for working on financial inclusion. Indeed, financial inclusion is increasingly becoming part of the mandate of Central Banks. Transparency is important: the public needs to be able to know what the Central Bank is doing for financial inclusion. This ensures certainty and consistency, a prerequisite for private sector confidence and investment.

**Central banks are mandated to promote and protect financial stability, but they need to balance this mandate with the need to foster financial inclusion.** An enabling environment needs to be proportional and risk-based so that the cost of compliance is not excessive. Regulation needs to be flexible and broad-based. A very detailed regulation will soon be overtaken by market changes and thus require frequent reviews and amendments that involve a lengthy legislature process. New

underwriting models may impact credit quality and macroeconomic variables as well, including new risk management practices. Against this background, it is crucial to foster collaboration at the international level, including in terms of peer learning about what works best to build trust amongst private actors and amongst regulators who may not want to allow certain products on the assumption that inherent risks may affect financial stability.

**A third set of challenges has to do with interoperability, and how to connect the various market players to allow for seamless transactions.** The key is to consider the value proposition for both the private and the public sectors, including in terms of interoperability. When a regulatory framework does not take into consideration the different value propositions, conflicts can arise within the market about whether the service should be offered through a bank-led model or a non-bank model. In some markets, there is competition between several players while in others there is a single dominant player. In some countries, the lion's share of growth in financial transactions has taken the form of Over-the-Counter (OTC) activity, where a mobile money agent performs transactions on behalf of customers.

**As a country's mobile money market develops, attention should shift from facilitating investments to ensuring appropriate competition, aligning competition between banks and non-banks to enhance financial inclusion and making the regulatory frameworks of both sectors compatible.** In a world of connected products, systems and people, it is necessary to make connected solutions for financial inclusion. FinTechs encompass a wide array of business processes, including payments, investments, lending, insurance, wealth management, digital currency and big-data analysis in the form of B2C, B2B, C2C that may complement, overlap, compete, or disrupt banking operations. Indeed, banks are concerned that non-banking institutions have an advantage over them while some non-banks are currently complaining that banks are presenting obstacles for them to interact with clients through banking operations. Therefore, regulators should be pro-technology but remain technologically neutral. Technology neutrality means that regulation designed to ensure consumer protection and financial stability should describe the result to be achieved, but should allow market players to adopt whatever technology is most appropriate to achieve the result. The same regulatory principles should apply to all types of market player and regulators should refrain from using regulations as a means to push the market towards a particular structure. Some financial inclusion products may look cost-effective at a low scale and yet lock domestic end-users into out-of-date and localised payment systems, preventing them from benefiting from innovation.





## Going the Extra Mile: Engaging the Bottom of the Pyramid

The role that FinTechs and banks play in inclusive finance is determined by a number of factors, including financial sector and Telco regulation. The market environment also matters, in terms of infrastructure, urban/rural split, literacy and poverty levels and mobile penetration. Finally, government policies also play a role. The case of Ethiopia can be used to illustrate the role played by these three elements and how they need to be taken into consideration to extend financial inclusion at the bottom of the pyramid.

**Thierry Artaud (M-BIRR) illustrated how M-BIRR aims at contributing to financial inclusion in the Ethiopian environment through a multi-stakeholder partnership.**<sup>5</sup> It uses a bank-led model whereby its services are provided by financial institutions. In practice, six local financial institutions have a partnership with M-BIRR, and with Ethiopia Telecom. The agents are the agents of the partnering banks and MFIs, not of the Telco. Regardless which of the six banks the customer is with, M-BIRR mobile money services are completely inter-operable, as in the case of M-PESA. He praised the Government of Ethiopia for taking some important decisions in favour of financial inclusion. Ethiopia's Growth and Transition Plan II foresees a rise in the number of bank branches from 2 868 in 2014/15 to 5 736 by 2019/20. Similarly, MFIs are expected to create roughly 15k points-of-presence within five years. These targets are impossible to achieve using a brick-and-mortar approach – only an agent banking model will enable these financial institutions to meet these targets.



**Exhibit 1: Digital Financial Inclusion via an NFC Bracelet**

### **Problems associated with local market conditions**

**also have to be addressed for digital financial services to succeed.** Agent banking works well in Ethiopia where 85% of the population is rural. With only 22% of the population formally banked, mobile banking can in principle significantly help financial inclusion. However, as Ethiopia has one of the lowest rates of mobile phone penetration in the world, M-BIRR has innovated by allowing customers to have a mobile account without a mobile phone. The way around the low rate of mobile penetration is through a so-called “PIN card”, which is a Personal Identification Number combined with a beneficiary card. End-users can go to their agent and conduct financial transactions using their PIN card via their agent's mobile phone. M-BIRR has also partnered with the Ethiopian Ministry of Finance and with International Organisations to enable social and aid payments via electronic

<sup>5</sup> Ethiopia is the second-largest country in SSA, with an estimated population of 93 million inhabitants in 2017. Private mobile operators are not allowed in Ethiopia under current regulations. Only financial institutions, i.e. banks and micro-finance institutions (MFIs), which must also be wholly Ethiopian-owned, are authorised to provide financial services. In Ethiopia, Telcos must therefore partner with a local financial institution if they wish to provide digital financial services.

means. Personal identification helps to prevent transfers to “ghost users”, i.e. fake multiple accounts.

**Persons with disabilities in SSA are often the poorest of the poor.** When they are excluded, they are not productive, do not pay taxes, and become dependent. Even those who support them will not progress as fast as they otherwise could. M-BIRR’s NFC bracelet (Exhibit 1), called ‘the watch’ is designed for people who cannot operate a phone, and is particularly targeted at disabled people. NFC is a set of communication protocols that enable two electronic devices, one of which is usually a portable device such as a smartphone, to establish communication by bringing them within 4 cm of each other. Agents assist people using the bracelet within their own local community, saving them from having to travel long distances. Older and disabled users can go to their regular shop and get help carrying out digital banking transactions. M-Birr won a UN award for this innovation.

**However, two significant and closely-related challenges to expanding financial inclusion remain financial literacy and consumer mindset.** Ethiopia is a cash-based society and customers do not necessarily understand the concept of accounts. According to the 2015 S&P Global FinLit Survey, less than a third of Ethiopian adults are financially literate. The challenge is to convince these customers to save their money in an account rather than to store it in cash form.

**Gender is a crucial factor of success.** In this respect, an enlightening example is the case of MasterCard’s financial inclusion programme in Nigeria launched in 2014. The initially unsatisfactory results came as a surprise to the programme designers. In particular, there was a real lack of take-up amongst women. Upon analysis, this was discovered to be due to the programme’s gender-neutral design. The number of registered female users soared once MasterCard understood that the majority of women worked with community-based organisations, and offered transportation to the identification (ID) centres through these organisations.

**GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit)’s experience with insurance in Ghana helps to illustrate the importance of a multi-stakeholder comprehensive and coherent approach to digital financial inclusion.** The project ‘Promoting Insurance in Ghana’ (PromIGH) aims to improve access to and usage of insurance products by low-income households and small-scale enterprises. The programme works on a number of levels. GIZ advises Ghana’s insurance regulator, the National Insurance Commission, on the development and implementation of a regulatory framework for insurance and micro-insurance, seeking to strike the right balance between compliance with international insurance standards, and tailoring regulation to the Ghanaian context while creating an enabling environment that does not stifle innovation. The programme also works with a large network of local and international partners to build expertise and technical know-how in the insurance industry. Finally, since end-users in Ghana are often insufficiently informed about the concept and benefits of insurance, the programme also supports insurance awareness campaigns including through print, radio and movie delivery channels. This helps build trust and empowers potential policyholders to make informed decisions.

**Partnerships are also essential to make the best of remittance flows. In SSA, remittances are playing an increasingly significant role for poverty alleviation and development finance.** AFI has entered into a partnership with Mastercard, GSMA, and VISA on cross-border digital transactions, where AFI is providing market knowledge. Mastercard is building on its work with refugees by supporting remittance flows. The remittance payment channel is an increasingly important channel for refugees and their families and Mastercard is working with several partners such as Western

Union and UNHCR, with the aim of easing access and reducing costs. There is also a partnership between Western Union and MTM.

**Louise Holden (Mastercard) reckoned that the challenges of universal financial inclusion cannot be met without strong multi-stakeholder partnerships: it is not without reason that partnerships are enshrined in the Sustainable Development Goals (SDGs), specifically SDG 17 ('Revitalize the global partnership for sustainable development') and particularly its 'multi-stakeholder partnerships target.** The active engagement and support of many stakeholders is needed, including the private sector, civil society, governments and a number of organisations. Partnerships enable partners to play to their strengths, and to share skills, people and assets. However, partnerships require a lot of work to develop and sustain.

**The first rule to strike a successful partnership is to build a shared vision.** Partners don't need to have the exact same goals but there needs to be a common vision that is driven by each partner's leaders from top to bottom. The second rule is for partners to play to their strengths. For instance, as a global technology company in the payments industry, Mastercard is good at digital payments, innovation and execution. But other organisations are more experienced and better equipped in other areas. For example UNHCR as well as all of the operational NGOs in the sector: Red Cross, Mercy Corps, are specialist in many areas including evaluating and assessing the needs of refugees. It's important for partners to be very clear about what they bring to the table and focus on their respective core strengths.

**The backing and sponsorship of the national government are also necessary as they are able to provide authorisation, funding and traction to drive the process.** There needs to be trust between the private sector and the public sector, all the more so when looking at market-wide scale-inclusive programmes like digitising social protection programmes. While not-for-profit organisations play an important role for financial inclusion, the bulk of the inclusion is actually carried out by for-profit organisations. For-profit players need a commercial business case to engage, even if the profit margins are not necessarily comparable to that of their core business. If there is a commercial business case, for-profit organisations are potentially able to commit investment and funds for longer periods – those periods often extend beyond a philanthropic period which can be subject to changing political or social agendas. Longer-term investments are sustainable investments, able to effect scale change.

### **Box 1: The Digital Agenda of the German Development Cooperation (GIZ) and the G20 High-Level Principles for Digital Financial Inclusion**

The *Digital Agenda* of the German Development Cooperation holds that responsible traditional and digital finance alike require an integrated “three-pillar approach”:

1. Consumer protection and supervision need to keep pace with the rapid changes in the industry. Rapid developments in the field of digital financial services require policymakers to re-think and adapt their consumer protection policies.
2. Through codes and standards, the digital financial industry can contribute to increasing financial inclusion in a responsible manner and complement the efforts of regulatory and supervisory bodies.
3. Financial literacy and capability need to be promoted amongst end-users: digital services are only useful if people understand and know how to use them.

The G20 High-Level Principles for Digital Financial Inclusion adopted in 2016 in Hangzhou provide important guidance for concrete action:

- *Condense the existing evidence and the knowledge and experience of all stakeholders.* Platforms such as the G20 have the potential to identify and share promising examples, strengthen networks, promote collaboration and peer-to-peer learning between relevant stakeholders and thus pave the way for successful implementation.
- *Tailor programme design and policy to the country’s context and the characteristics and behaviour of the financially excluded.* In some markets, there is a failure to offer financial services beyond mobile transfers, such as small loans and savings accounts, to a large segment of excluded and underserved households. The case of Mastercard in Nigeria underlines the importance of being client-focused and of understanding end-users and how they take up and manage the services. International SME policy guidelines should apply to financial institutions and SME lenders and help them identify specific strategies for excluded entrepreneurs, including female entrepreneurs.
- *Create an enabling environment,* bearing in mind that inefficient regulatory and legal approaches can have an adverse effect on financial inclusion:
  - Offer a fair, open, level playing field;
  - Provide clear market participation rules;
  - Carefully assess the relevant risks from a market, provider and consumer perspective;
  - Regulate principal-agent and principal-client relationships to safeguard the consumer;
  - Ensure that a framework can be supervised with the required capacity and resources.
- *Support the development of the digital finance infrastructure.* In terms of mobile access and internet access, while urban areas are generally well served, in rural areas there is still a significant coverage gap.
- *Lead by example.* IFIs/DFIs and international platforms like the G20 can make an important contribution. However, the implementation rests with local players such as governmental authorities, private sector operators, etc. Governments can become mobile money customers themselves and that can have a significant impact if mobile payments increase formality and eventually the tax base. Government-to-Consumers and Government-to-Business e-payments increase administrative efficiency, limit room for corruption and leakages, help mobile payment platforms scale up and incentivise end-users to adopt them. They also reduce liquidity management issues and central banks benefit from lower currency management costs.

## Key Takeaways and the Road Ahead

**One of the key challenges of digital financial inclusion is how to harness the tremendous potential of digital solutions, while ensuring the protection of customers and the stability of the financial system** (Box 1). Through collective efforts, important progress has already been achieved but it is crucial that the momentum should be maintained. The panellists' recommendations for IFIs/DFIs are threefold:

1. There is a need to keep **building capacity** to continuously adapt to the realities in a very dynamic environment, especially in sub-Saharan Africa. Sound contextual analysis that includes a robust social and gender analysis provides the foundation of good market analysis. IFIs/DFIs need to improve the collective understanding of digital financial services so as to effectively design laws and rules to leverage the upsides of these developments, while managing the potential risks and burdens. Therefore, the existing evidence, knowledge and experience from all countries need to be condensed and shared in order to guide efforts in the field of digital financial inclusion.
2. IFIs/DFIs should therefore **take part in the global dialogue on digital financial inclusion**. Platforms such as the Alliance for Financial Inclusion, the G20 Global Partnership for Financial Inclusion (GPFI) and Making Finance Work for Africa can help to reap the benefits and address challenges at the same time.
3. Last but not least, IFIs/DFIs should **support the development of digital finance infrastructure**. Investments in infrastructure components need to be financed both at central level (e.g. hardware and software at the central hubs of national payment systems, national switches, clearing houses) and at industry level (e.g. investments in technology to be integrated into the new central infrastructure).

## References and further reading

Alliance for Financial Inclusion: <http://www.afi-global.org/publications/>

Better Than Cash Alliance, Accelerators to an Inclusive Digital Payments Ecosystem, September 2016.

Global Partnership for Financial Inclusion, Digital Financial Inclusion: Emerging Policy Approaches, July 2017.

Global Partnership for Financial Inclusion, SME Finance Forum, G20 Germany 2017, World Bank, Alternative Data Transforming SME Finance, May 2017.

Kelly, S., Ferenzy, D. and McGrath A. How Financial Institutions and FinTechs Are Partnering for Inclusion: Lessons from the Frontlines, Institute for International Finance and Center for Financial Inclusion, August 2017.

Manyika, J., Lund, S., Singer, M., White, O. and Berry, C., 2016. Digital Finance for All: Powering Inclusive Growth In Emerging Economies. McKinsey Global Institute.

Making Finance Work for Africa: <http://www.mfw4a.org/>

Mastercard Foundation's Financial Inclusion Program: <http://www.mastercardfdn.org/financial-inclusion-program/>

M-Birr: <http://www.m-birr.com/>

SME Finance Forum: <http://www.smefinanceforum.org/>

Villasenor, J.D., West, D.M. and Lewis, R.J., 2016. The 2016 Brookings Financial and Digital Inclusion Project Report: Advancing Equitable Financial Ecosystems.

World Economic Forum, Beyond Fintech: A Pragmatic Assessment Of Disruptive Potential In Financial Services, Part of the Future of Financial Services series | Prepared in collaboration with Deloitte, August 2017.










**European  
Investment  
Bank**

*The EU bank*



**Economics Department**

 [economics@eib.org](mailto:economics@eib.org)  
[www.eib.org/economics](http://www.eib.org/economics)

**Information Desk**

 +352 4379-22000  
 +352 4379-62000  
 [info@eib.org](mailto:info@eib.org)

**European Investment Bank**

98-100, boulevard Konrad Adenauer  
L-2950 Luxembourg  
 +352 4379-1  
 +352 437704  
[www.eib.org](http://www.eib.org)

**The European Investment Bank (EIB)  
is the European Union's financing institution**

Under its external mandates, the EIB helps to implement the financial pillar of the EU's foreign policy. It is active mainly in the pre-accession countries of South-East Europe, as well as in the neighbouring countries to the South and East. The Bank also operates in the African, Caribbean and Pacific countries and Asia and Latin America. Its financing activities are aimed at supporting local private sector development, improving social and economic infrastructure and climate change mitigation and adaptation.