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FinTech Regulation in SUB-SAHARAN AFRICA

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The UK is pleased to partner with the Cambridge Centre for Alternative Finance (CCAF) to support their expert work on financial innovation and enabling regulatory environments. This is essential to expand the reach of inclusive digital financial services across Sub-Saharan Africa (SSA).

Financial Technology (FinTech) has allowed developing countries to leapfrog the traditional model of bricks-and-mortar banks and make substantial progress in increasing the reach of financial services to the most vulnerable people and enterprises. These innovations would not have been possible without the dedicated efforts of authorities across the SSA region to provide regulatory frameworks that enable novel providers and services as well as safeguard consumers.

The FinTech Regulation in Sub-Saharan Africa report provides an excellent evidence-based summary of how central banks and other financial regulators have responded to financial innovation in the region. The report draws on longitudinal data collected by the CCAF on Regulatory Innovation Initiatives and bespoke FinTech regulatory frameworks and presents, for the first time, a regional view of cross-cutting regulatory frameworks related to data privacy, cybersecurity, open banking and remote customer onboarding.

The report highlights the continued efforts of SSA financial authorities to accommodate and shape the contribution of financial innovation in the region, despite disruption due to the ongoing COVID-19 pandemic. The report reveals how regulators have responded to the impact of COVID-19 on FinTechs and consumers through the introduction of permanent and temporary regulatory measures related to electronic Know Your Customer (eKYC), digital payments, international remittances and consumer protection.

I hope this report will bring greater awareness of the state of FinTech regulation in SSA, and inspire further work to ensure the benefits of financial innovation reach the financially excluded and helps accelerate economic growth.

Moazzam Malik CMG
Director General Africa
Foreign, Commonwealth and Development Office

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The proliferation of FinTech actors and activities presents many regulatory challenges, particularly for emerging and developing economies. When appropriately regulated these financial innovations can contribute to regulatory objectives, such as extending financial inclusion in unprecedented ways. Across Sub-Saharan Africa (SSA), regulators have responded to the rapid growth in the FinTech market through a range of regulatory innovation initiatives and bespoke FinTech regulations. Timely data on emerging regulatory approaches to FinTech, as presented in this report, allows for more effective regulatory benchmarking and knowledge sharing between regulatory practitioners and the wider FinTech ecosystem.

This landscaping study seeks to answer the following questions: How are different FinTech activities regulated in the region? Which regulators have a mandate for FinTech activities? Are FinTechs regulated by bespoke, more general, or existing frameworks? What examples of positive practices in FinTech regulation can be seen in SSA and what gaps remain? How have regulators in SSA jurisdictions responded to both the opportunities and challenges associated with FinTech during the COVID-19 pandemic?

To answer these questions, the study draws on data from the *Global COVID-19 FinTech Regulatory Rapid Assessment Study* (CCAF and World Bank, 2020), *Regulating Alternative Finance* (CCAF and World Bank, 2019), as well as direct surveys with a select number of regulators. It is based also on a qualitative review of regulatory frameworks, including the laws, regulations, directives, guidelines and other hard and soft rules relating to FinTech activities.

The comprehensive dataset generated through this study offers a unique view into the regulatory landscape governing FinTech including, for the first time, cross-cutting regulatory frameworks that impact FinTech activities such as cybersecurity, data protection, consumer protection and eKYC. This study forms part of a series of three regional FinTech regulation landscaping studies that includes the Middle East and North Africa (MENA) and the Asia Pacific (APAC) regions. By comparing experiences across jurisdictions within SSA and across regions using consistent frameworks, this study seeks to shed new light on the dynamic and evolving landscape of FinTech regulation.

At the CCAF we remain grateful for the foundational funding provided by the UK Foreign, Commonwealth & Development Office (FCDO) through the Prosperity Fund Global Finance Programme to support this research. We are further grateful to the regulators who contributed their time and knowledge to provide the evidence base for this study.

Robert Wardrop
Faculty (Professor level) in Management Practice
Director & Co-founder of the Cambridge Centre for Alternative Finance (CCAF)

Regional studies play an important role, providing insights that enhance our understanding of cross-country trends, contextual nuances and the application of good practice. This particular study profiles the state of regulatory innovation across twenty countries in sub-Saharan Africa (SSA), highlighting the increasing adoption of initiatives such as innovation offices and sandboxes as well as RegTech and SupTech. It reviews how, during unparalleled times, jurisdictions in the region have responded to both the opportunities and challenges associated with FinTech and digital financial services through these emerging regulatory practices and innovation initiatives.

FinTech, when focused on addressing real market needs and when appropriately nurtured and regulated, has the potential to extend the benefits of finance to millions of underserved people and businesses worldwide. Sub-Saharan Africa has demonstrated this potential through the mass adoption of mobile payments in multiple jurisdictions. Regulators in SSA are increasingly appreciating the role that FinTech plays in supporting policy and regulatory objectives, not only in relation to financial inclusion, but inclusive economic development more broadly. However, the ongoing expansion and evolution of FinTech activity does present a set of regulatory challenges that need to be better understood before suitable regulatory responses can be designed and rolled out.

In SSA, there are proportionally less regulatory frameworks for more innovative form of finance than in the MENA and APAC regions. There are also fewer jurisdictions where frameworks are in place for cross-cutting regulatory considerations, such as cybersecurity and open banking. Much work remains but, as the study highlights, this work is now getting well underway in SSA, with regulators rising to the challenge and often doing so in ways that aim to nurture rather than stifle the opportunity that FinTech can bring.

Understanding this current state of innovation-focused regulatory activity is certainly helpful to FSD Africa as we advance our financial sector deepening work in the region, as I'm sure it is for many others working in this field. Building on the 2020 Global Covid-19 Fintech Regulatory Rapid Assessment Survey, this study is part three in a series of regional FinTech regulation landscaping studies. By comparing experiences within SSA and across MENA and APAC regions, it sheds light on the evolving landscape of FinTech regulation in SSA, providing much needed evidence to inform future policy and industry development for the benefit of all of us.

Juliet Munro
Director Digital Economy
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Research Team

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Acronyms

AML/CFT	Anti-Money Laundering/ Combating the Financing of Terrorism
APAC	The Asia-Pacific
CDD	Customer Due Diligence
COVID-19	Coronavirus Disease 2019
DFS	Digital Financial Services
FATF	Financial Action Task Force
GFIN	Global Financial Innovation Network
IFWG	Inter-Governmental FinTech Working Group, South Africa
KYC	Know Your Customer; electronic-KYC (eKYC)
LAC	Latin America and the Caribbean
MoU	Memorandum of Understanding
MENA	Middle East and North Africa
MNO	Mobile Network Operator
MSMEs	Micro, Small and Medium Enterprises
SSA	Sub-Saharan Africa
TPP	Third Party Providers
UNSGSA	UN Secretary-General's Special Advocate for Inclusive Finance for Development

Glossary

Agent(s): a third party acting on behalf of a financial service provider to deal with customers.

Cybersecurity: the practice of defending electronic infrastructure and networks, as well as data, from malicious attacks.

Digital Payments: entails the transfer of value from one payment account to another using a digital device such as a mobile phone, or computer. This may include payments made by traditional financial institutions and FinTechs via bank transfers, e-Money and payment cards.

Data Protection: laws and/or regulations designed to protect people's personal data.

Digital Financial Services (DFS): financial products and services, including payments, transfers, savings, credit, insurance, securities, financial planning and account statements that are delivered via digital/electronic technology, that can incorporate traditional financial service providers.

Digital Infrastructure: the enabling digital structures, facilities, ecosystem and capabilities surrounding the provision of FinTech/DFS, but can be widely applicable beyond financial services. For the purposes of this study, this typically includes infrastructure related to identity (e.g. digital identity initiatives), data analytics and sharing, credit information and/or payment systems and risk mitigations. While these may be directly or indirectly relevant for the regulation and supervision of FinTech/DFS, not all of these may be under the remit or influence of financial regulators.

E-Money: encompasses the issuance of electronic funds and the provision of digital means of payment to access these funds. It includes mobile money which entails the use of a mobile phone to transfer funds between banks or accounts, deposit or withdraw funds or pay bills.

FinTech: encompasses advances in technology and changes in business models that have the potential to transform the provision of financial services through the development of innovative instruments, channels and systems. For the purposes of this study, FinTech refers to a set of activities (which may be either regulated or unregulated, according to each jurisdiction) contributing to the provision of financial products and services facilitated predominately by entities emerging from outside of the traditional financial system.

FinTech Market: the provision, transaction and facilitation of financial activities across emerging verticals including digital lending (e.g. Peer-to-Peer (P2P) lending), digital capital raising (e.g. equity-based crowdfunding), digital banking, digital savings, digital payments and remittances, digital custody, InsurTech, WealthTech, cryptoasset exchanges and the supply of enterprise technologies, RegTech, alternative data analytics and other services.

Innovation Office: a dedicated office within a regulator which engages with and provides regulatory clarification to innovative financial services providers. These may also be known as Innovation or FinTech Hubs.

Open Banking: the process whereby banks and other traditional financial institutions give customers and third parties easy digital access to their financial data. This often takes place through the use of application programming interfaces (APIs).

RegTech/SupTech: for the purposes of this study, SupTech refers to the use of innovative technologies by *regulators* to tackle regulatory or supervisory challenges. It is a subset of

RegTech, which includes any use of technology to match structured and unstructured data to information taxonomies or decision rules that are meaningful to both regulators and the regulated entities, in order to automate compliance or oversight processes. The two terms are used interchangeably in this study given their varying usage by regulators, and the potential for commonly adopted definitions, standards and protocols.

Regulatory Framework: for the purposes of this study, this is an umbrella term that includes laws, regulations, directives, guidelines, recommendations and procedures, issued by legislators and regulators. These could be standalone or contained within a wider regulatory framework.

Regulatory Innovation Initiatives: a broad set of activities carried out by regulators to innovate regulatory and supervisory functions, processes, organisations and applications, which often but not necessarily involve the use of technological solutions.

Regulatory Sandbox: formal regulatory programmes within a regulatory agency that allow market participants to test new financial services or models with live customers, subject to certain safeguards and oversight.

1. Executive Summary

When sustainably developed and appropriately regulated, FinTech has the potential to extend the benefits of finance to millions of unbanked and underbanked people and businesses worldwide. Sub-Saharan Africa (SSA) has in many ways demonstrated this potential through the successful mass adoption of digital payments offered through mobile network operators in many jurisdictions across the region. However, the continued rise and diversification of FinTech actors and activities presents many regulatory challenges, particularly for emerging and developing economies. This landscaping study reviews how SSA jurisdictions have responded to both the opportunities and challenges associated with FinTech and wider Digital Financial Services (DFS) through regulatory efforts and processes, as well as regulatory innovation initiatives. This study forms part of a series of three regional FinTech regulation landscaping studies that includes the Middle East and North Africa (MENA) and the Asia Pacific region (APAC). By comparing experiences across jurisdictions within SSA and across regions, this study seeks to shed light on the dynamic and evolving landscape of FinTech regulation and provide evidence and insights to inform policymaking and industry development.

This study draws on data from the *Global COVID-19 FinTech Regulatory Rapid Assessment Study* (CCAF and World Bank, 2020), *Regulating Alternative Finance* (CCAF and World Bank, 2019), and direct surveys of a selective number of regulators and a qualitative review of regulatory frameworks (laws, regulations, directives, guidelines and other regulatory information) relating to FinTech activities in respective jurisdictions across SSA. The FinTech verticals of particular interest in this study are digital payments, e-Money, international remittances, Peer to Peer lending (P2P) and Equity Crowdfunding (ECF). However, this study also examines cross-sectoral regulatory frameworks that affect the financial sector as a whole, such as data protection, cybersecurity, anti-money laundering, and consumer protection, as well as open banking and Electronic Know Your Customer (eKYC).

This study proceeds to discuss the current state of regulatory innovation in SSA, highlighting recent initiatives such as the development of innovation offices and regulatory sandboxes, and the adoption of RegTech/SupTech. The study concludes with a discussion of some of the key regulatory challenges and identifies further research areas, as well as presenting two detailed country case studies on the regulatory approaches to FinTech adopted by Kenya and Nigeria.

The observed impact of COVID-19 on FinTech and regulation in the SSA region

The COVID-19 pandemic has accelerated the adoption of FinTech and 70% of surveyed regulators in SSA reported an increase in the priority of this sector in their work. Regulators highlighted the supportive role of FinTech in achieving regulator objectives related to financial inclusion (76% considered it supportive), market development (52%) and the adoption of digital financial services (52%), among others. The pandemic has further increased the importance of remote onboarding and eKYC, with 40% of regulators in SSA who responded to our survey introducing specific measures for these. In addition, during the pandemic, 72% of SSA jurisdictions implemented measures in respect of digital payments and international remittances, as compared to 61% globally. This perhaps reflects the prominence of these specific FinTech verticals within SSA.

40% of SSA regulators who responded to the COVID-19 survey perceived an increase in consumer protection risk related to FinTech during the pandemic. This was in addition to a perceived increase in market integrity and financial stability risk (reported by 24% and 16%

of surveyed regulators respectively). It is notable that in SSA, the perceived harmful impact of FinTech on consumer protection in light of COVID-19 (40%) was far higher than the global average (13%). The regulators surveyed in SSA considered that COVID-19 increased risks related to cybersecurity (69%), operational risks (35%) and consumer protection (23%). Finally, regulators have cited several factors related to the pandemic which are affecting their ability to effectively develop responses to FinTech, with 38% of surveyed regulators identifying challenges in performing core functions while working remotely (e.g. carrying out on-site visits) and 28% highlighting an increased demand on resources.

FinTech vertical specific regulatory frameworks

95% of sampled jurisdictions in SSA have established regulatory frameworks for digital payments. This is in part due to the SSA being one of the fastest growing digital payments markets globally. This trend has been accelerated due to the COVID-19 pandemic: SSA reported a 25% increase in transactions and volumes in the Global Covid-19 FinTech Market Rapid Assessment Study relative to the previous reporting period (CCAF, WEF and World Bank, 2020).

All of sampled jurisdictions in SSA have established a regulatory framework for e-Money. In those jurisdictions with a framework, 42% regulate e-Money through a general payments framework with specific provisions for e-Money and 58% have created a specific e-Money framework to cover such activity. Agents acting on behalf of financial service providers play a pivotal role in broadening the use of digital payments and are permitted in the regulatory frameworks of 90% of the sampled SSA jurisdictions. Of the sampled jurisdictions in SSA, 74% have a framework for international remittances under their general payments framework and 16% have a specific framework for international remittances.

35% of sampled jurisdictions in SSA have a framework that regulates P2P lending and a further 15% of jurisdictions are planning to introduce a framework. The coverage of regulatory frameworks for P2P lending is relatively low in SSA in comparison to MENA (58%) or APAC (72%) regions. Although four SSA sampled jurisdictions regulate P2P under an existing framework, only two jurisdictions have bespoke frameworks for P2P lending in place, compared to six in MENA and nine in APAC. Another major difference in SSA is that central banks are more likely than securities regulators to have a mandate to regulate P2P lending. In the limited number of SSA jurisdictions that do license P2P lending, only 66% of them have minimum capital requirements in place for platforms to acquire a licence.

There is an Equity Crowdfunding (ECF) regulatory framework in 34% of sampled SSA jurisdictions. The coverage of regulatory frameworks for ECF is relatively low in SSA in comparison to MENA (77%) or APAC (78%) regions. Despite the low coverage, there has been notable growth in regulatory frameworks from 12% in 2019 (CCAF and World Bank, 2019) to 34% in 2021. A further 33% of jurisdictions in our sample are planning to introduce a framework. In those jurisdictions where there is a framework, there are minimum capital requirements and often a limit on the amount of a retail investor’s portfolio that can be invested through ECF. For example, in Nigeria, an investor cannot invest more than 10% of their annual income.

Cross-sector regulatory frameworks that impact FinTech

85% of sampled jurisdictions in SSA have a general regulatory framework for cybersecurity in place. It is also notable that 55% of the sampled jurisdictions have introduced additional measures on cybersecurity since the start of the COVID-19 pandemic, mainly focusing on raising awareness of ongoing cybersecurity threats among market participants. In addition, 55% of sampled jurisdictions have implemented financial services sector specific cybersecurity by at least one of the financial regulators in the jurisdiction.

Concerns regarding fraud and cyber risk have led to increased activity by regulators to ensure financial sector data protection and cybersecurity frameworks are in place. Relevantly, **65% of sampled SSA jurisdictions have a general data protection framework in place, with a further 20% planning to introduce one.** In addition, 85% of sampled jurisdictions have implemented a financial services sector specific data protection framework by at least one of the financial regulators in the jurisdiction.

Financial consumer protection frameworks are in place in 82% of sampled jurisdictions, with examples of jurisdictions, such as South Africa's Financial Sector Conduct Authority (FSCA), creating a dedicated financial consumer protection authority. Financial consumer protection is an area of concern elevated by the COVID-19 pandemic, with 45% of surveyed jurisdictions introducing additional financial consumer protection measures. Such measures focused on ensuring fees on transactions were transparent and charges for e-Money transactions were kept low or eliminated during the peak of the pandemic.

In terms of Anti-Money Laundering (AML) and Combatting the Financing of Terrorism (CFT), all sampled jurisdictions have a framework. It is notable that Burundi is not part of the Financial Action Task Force or any of the regional bodies affiliated with it. There is a greater propensity in the SSA sample to have the central bank (55%) as the main regulator of AML/CFT issues than in the MENA or APAC regions.

Two jurisdictions in the SSA sample have regulatory frameworks in place for open banking and a further five are planning to introduce such a policy. While this could be a positive development, promoting greater adoption of DFS, the SSA region still lags MENA and APAC in establishing open banking regulatory frameworks. The nature of open banking necessitates robust data protection and cybersecurity frameworks in the broader financial sector, to ensure that data and information sharing is undertaken securely. While there are eleven jurisdictions where financial sector cybersecurity frameworks were in place, we note that three jurisdictions with existing or planned open banking regulatory framework do not have financial service specific cybersecurity frameworks in place.

Market firms in SSA noted that regulatory support for eKYC and remote onboarding are key demands of market participants in SSA from regulators. **While only 10% of sampled jurisdictions expressly forbid eKYC, only 55% of jurisdictions have a framework in how to accommodate eKYC.** In the majority of cases in the sample where eKYC is permitted (55%), there is no use of a centralised digital identity system to provide validation.

Regulatory innovation initiatives

A review of all SSA jurisdictions for regulatory innovation initiatives reveals a significant increase in activity in the last two years. **The study identified nine innovation offices, up from zero in 2019. There are also ten regulatory sandboxes in place, with a further six being planned.** These initiatives may help to facilitate increased engagement between regulators and FinTech firms, while helping to create an environment that is more conducive to the growth of the FinTech sector. They may also be useful in streamlining authorisation processes and reducing the time it takes for firms to get to market. This is reflected in the high demand for regulatory innovation initiatives, with 63% of FinTech firms surveyed in SSA suggesting they 'urgently need' faster authorisation and/or licensing processes for new activities, and over half the respondents saying they urgently need streamlined product/service approval.

Hurdles faced by regulatory authorities in SSA when establishing regulatory frameworks and innovation initiatives

SSA regulators that responded to a CCAF survey reported a number of hurdles in the establishment of regulatory frameworks and innovation initiatives. The obstacles in forming regulatory frameworks include limited technical skills (reported by 75% of surveyed regulators), lack of clear mandates, and limited resources (reported by 65% and 50% of regulators respectively). For regulatory innovation initiatives specifically, the identified challenges included coordination with other agencies (55%), reprioritisation of resources (41%) and difficulty with external communications (41%).

The COVID-19 pandemic has introduced new and exacerbated pre-existing challenges faced by SSA regulators in regulating FinTech. Of the surveyed regulators, 38% responded that it was more challenging to perform core functions during COVID-19. They also indicated that COVID-19 made it more challenging to coordinate other domestic agencies (34%) and to access accurate and/or timely data for regulation or supervision (34%). It is also notable that surveyed SSA regulators stated they were less likely to have had a high level of preparedness for the COVID-19 pandemic relative to our global sample (46% relative to 54% globally), while 25% stated there was a low adequacy of resources to respond to the COVID-19 pandemic.

Country case studies:

This study also includes two detailed country case studies on Kenya and Nigeria. These two case studies provide insights on FinTech market development, the applications of regulatory frameworks and the challenges in creating an enabling FinTech ecosystem for other jurisdictions in SSA and beyond.

Kenya: The regulatory approach to FinTech in Kenya can be traced to its early regulatory approach to mobile payments and mobile money, which largely consisted of a 'test-and-learn' strategy. This approach eventually led to the enactment of a dedicated payments regulatory framework. Kenya is also an early-adopter of regulatory sandboxes and innovation offices within the SSA region.

Nigeria: Nigeria is recognised as a FinTech hub in the SSA region and, in contrast to most other SSA jurisdictions, it has frameworks that enable P2P lending activities and ECF. Nigeria is one of the two jurisdictions in the region that have established an open banking framework. There are several examples of positive practice observable in this jurisdiction, including its regulatory approach to eKYC with its tiered KYC requirements and the enactment of a centralised biometric identification system.

2. Introduction

2. Introduction

The regulation of FinTech and its importance

Technology is not only transforming the provision of financial products and services by altering traditional financial sectors, but also by facilitating the creation of alternative financial products and services (commonly referred to as FinTech) by entities emerging from outside of the traditional financial system. In this SSA regional study, we explore the changing regulatory environment for FinTech activities in payments, ECF and P2P lending, as well as regulatory responses to cross-cutting topics, such as data protection, cybersecurity and AML, that can affect advancements in FinTech. This study further explores the use of regulatory innovation initiatives by mapping such initiatives using publicly available information. By understanding the current regulatory framework in key jurisdictions, we can share region-specific insights as well as identify the varied regulatory responses to common challenges.

FinTech has been transformative to the SSA region, providing new solutions to financial inclusion, economic growth, and poverty reduction (CCAF and World Bank, 2019). Market solutions have developed in the region to address important obstacles to economic development, reducing barriers to financial inclusion, and increasing competition in payments, international remittances, and other financial services. At the same time, the evolution of FinTech has led to challenges for regulators, who are responding by changing their existing regulatory frameworks and creating regulatory innovation initiatives that are designed to support new approaches, while protecting consumers from harm. We provide a more detailed analysis in two country-specific case studies, that consider the regulatory landscape of Kenya and Nigeria. These two jurisdictions are leading FinTech hubs in the region and demonstrate how regulatory frameworks and innovation initiatives can be applied to specific FinTech verticals and other cross-cutting issues.

SSA is an important region for FinTech, particularly in terms of digital payments and mobile money. This study builds on CCAF's body of work in the region and aims to contribute to regional comparative research[1]. It identifies the current state of regulation and regulatory innovation initiatives using an extensive sample of SSA jurisdictions and provides evidence that indicates regional variation, but also an acceleration of efforts to overcome gaps in legal and regulatory frameworks in specific FinTech verticals.

SSA regulators have also identified the need to create initiatives that can provide guidance and enable the development and launch of innovative projects. Some regulators have gone further in stimulating innovation through the creation of a structured environment for testing, such as regulatory sandboxes, although some efforts were impacted by the COVID-19 pandemic.

The impact of COVID-19 on regulating FinTech

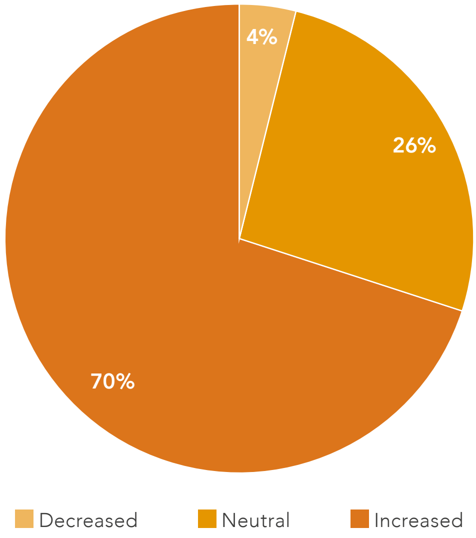
The COVID-19 pandemic has had a significant impact on consumers, regulators and market participants. The economic downturn and the challenges of the economic recovery have created pressures in financial markets and for their regulators. We outline some of the issues faced by regulators in SSA and note the differing responses across the region to common challenges and how they have affected regulators' perceptions of FinTech as well as their regulatory innovation efforts.

The COVID-19 pandemic has altered regulators' perceptions of the importance of FinTech within the SSA region.

1 For past research on the region see: (CCAF, 2017a); (CCAF, 2017b); (CCAF, 2018a); (CCAF, 2018b).

As **Figure 2.1** indicates, 70% of the regulators who responded to the COVID-19 survey reported that FinTech has increased as a regulatory priority due to the pandemic (CCAF and World Bank, 2020). This shift in regulatory opinion can be attributed to the substantial growth in FinTech transaction volumes and customer acquisition in SSA during the pandemic (CCAF, WEF and World Bank, 2020). This growth was more pronounced in SSA jurisdictions with more stringent lockdown measures. It is notable that growth in the SSA in FinTech transaction volumes and customer acquisition are higher than the global average (CCAF and World Bank, 2020).

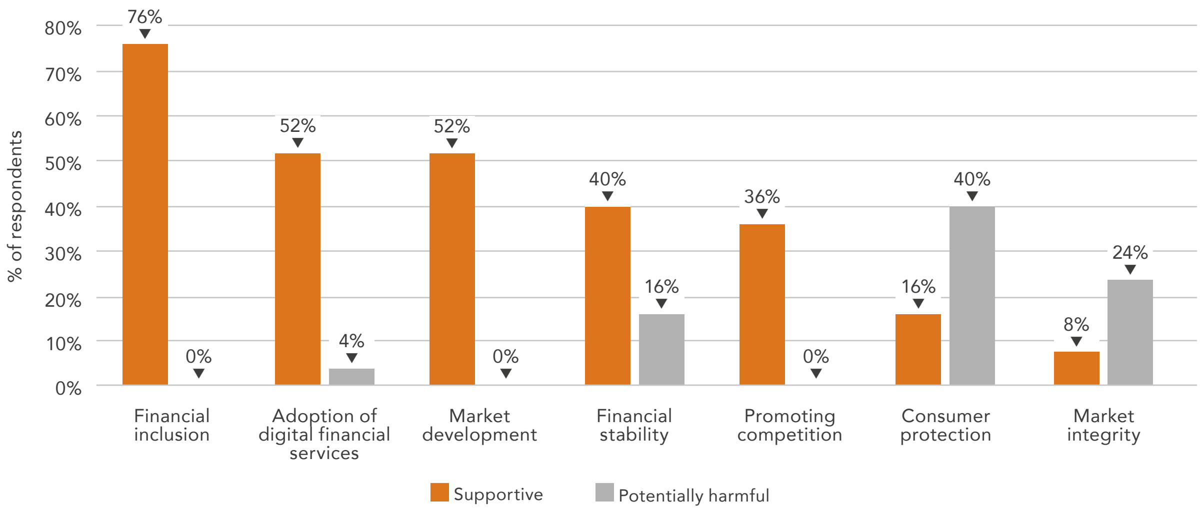
Figure 2.1: SSA regulator perception of FinTech priority in light of COVID-19 (N=23)



Note: N denotes number of regulators in SSA who responded to a survey. Source: (CCAF and World Bank, 2020)

For SSA regulators, the COVID-19 pandemic heightened challenges related to achieving their regulatory objectives. **Figure 2.2** indicates that SSA regulators still perceive FinTech as supporting regulatory aims, but also that increased FinTech activity could have potentially harmful consequences for consumer protection and financial stability. SSA regulators surveyed recorded concerns in far higher levels than the global average (40% in SSA relative to 13% globally), with more SSA regulators considering the impact of FinTech on consumer protection to be more harmful than beneficial (CCAF and World Bank, 2020).

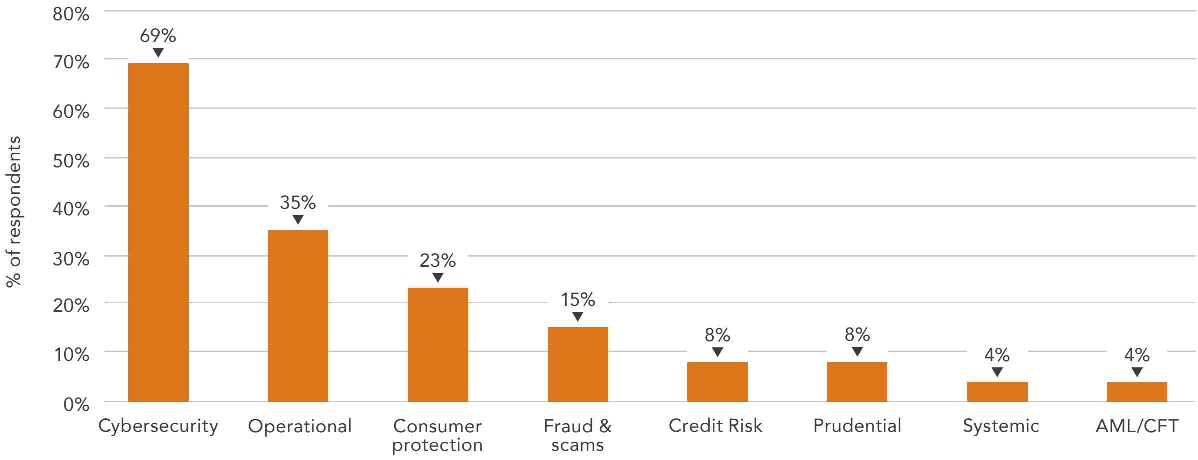
Figure 2.2: Perceived impact of FinTech on regulatory objectives in light of Covid-19 - SSA (N=25)



Note: N denotes number of regulators in SSA who responded to a survey. Source: (CCAF and World Bank, 2020)

SSA regulators identified cybersecurity, operational concerns and consumer protection as increasing risks of FinTech, as presented in **Figure 2.3**. These align with the risks that regulators globally considered to be increasing due to FinTech usage during the pandemic (CCAF and World Bank, 2020).

Figure 2.3: SSA regulator perceptions of COVID-19 increasing risks of FinTech (N=26)



Note: N denotes number of regulators in SSA who responded to a survey. Source: (CCAF and World Bank, 2020)

The pandemic has significantly accelerated efforts directed to regulatory innovation initiatives, with some regulators launching or prioritising digital infrastructure projects, RegTech/SupTech, innovation offices and regulatory sandbox initiatives. We map out the regional spread of regulatory innovation and identify the key challenges in promoting innovation in Chapter 6.

3. Literature review and methodology

3. Literature review and methodology

Literature review: The regulatory approach to FinTech in SSA

There is limited research that explores the regulatory approach to FinTech specifically in the region of SSA. Much of the available literature focuses on jurisdictions that are considered FinTech leaders, on account of their emergence as major FinTech centres in the region. Foremost examples include Kenya, Nigeria, and South Africa (Didenko, 2017; CCAF, 2018a). According to a 2021 study, there are 576 start-ups active in SSA, with 27% of those based in South Africa, followed by 25% in Nigeria and 16% in Kenya (Jackson & Mulligan, 2021). This study seeks to contribute towards creating broader regional insights by drawing on a larger number of jurisdictions in the region.

The available research highlights general patterns with respect to FinTech regulation in SSA. Commentators suggest that the development and scaling of FinTech in SSA has been supported by several factors in the regulatory sphere, including legal origins, regulatory approaches like 'test-and-learn', regulation under bespoke or existing frameworks, and development and implementation of regulatory innovation initiatives. These are discussed below.

Legal origins can play an important role in laying the foundation for entrepreneurial growth in developing jurisdictions. In the case of FinTech in SSA, it has been suggested that there is far greater adoption of FinTech applications, further advancement in the building of the underlying infrastructure that supports FinTech, and better financial inclusion outcomes in jurisdictions with a common law as opposed to a civil law legal heritage (Yermack, 2018). It is further asserted that in common law jurisdictions, investor protection and liquidity tend to be better, and costs of capital are lower. This, it is suggested, may have supported the growth of FinTech in these jurisdictions (Yermack, 2018).

The development and scaling of FinTech in SSA has also arguably been supported by a range of regulatory approaches that have been implemented to support the development of DFS and FinTech (World Bank, 2020). Many FinTech activities have typically fallen outside the regulatory perimeter, and regulators have in some cases elected to adopt flexible regulatory approaches to support innovative ideas. A globally renowned example from SSA is the adoption of the 'test-and-learn' approach by the Central Bank of Kenya, as evidenced by the issuance of a 'letter of no objection' to the mobile network operator Safaricom Ltd, which enabled successful deployment of the M-Pesa mobile money solution (Mas & Ng'weno, 2010). This approach entails the regulator granting a restricted licence or partial waiver for providers seeking to test novel technologies, while providing ongoing regulatory oversight (World Bank, 2020). The approach has been subsequently employed in other jurisdictions in the SSA region, such as in Tanzania and Sierra Leone (BFA Global, 2014).

Other regulatory approaches include the development of bespoke frameworks or regulators opting to regulate FinTechs under existing frameworks (CCAF and World Bank, 2019). In some cases, FinTech activities may be unregulated altogether, particularly for nascent activities. A challenge observable in some jurisdictions that has given rise to unregulated activities, has been the historical implementation of an entity-based approach to regulation as opposed to an activity-based one. This is evolving in the region. For instance, in jurisdictions such as Malawi, they have adopted an activities-based approach to licensing requirements for e-Money issuers. They permit only licensed institutions regardless of entity type (World Bank, 2021b).

Another approach that has been adopted by regulators in SSA to support the advancement of FinTech is the development and implementation of regulatory innovation initiatives such as innovation offices, regulatory sandboxes, and digital technology initiatives including RegTech and SupTech (CCAF and UNSGSA, 2019). A more detailed discussion regarding the SSA approach to regulatory innovation initiatives, including regional mapping and the existing gaps, is set out in **Chapter 6** of this study.

There is diversity of explicit regulatory mandates in the region. Most SSA regulators are reported to have introduced statutory financial inclusion objectives, and this may have had a positive effect on the development and scaling of FinTech innovation in the region (CCAF and World Bank, 2019).

In some cases, it has been possible to harness the powers of regulators with a cross-cutting mandate. For instance, the Competition Authority of Kenya (CAK) relied on its cross-sectoral mandate to impose requirements on DFS providers to fully disclose costs of person-to-person transfers, bill payments and loans (including microcredit) (Mazer, 2018).

The regulatory gaps

Despite progress being made, some challenges remain. One key finding that emerges from the literature is that among FinTech leaders such as Kenya and South Africa – and this may be equally true for the majority of other jurisdictions within SSA as well as other regions (MENA, APAC, etc.) – there is no overarching FinTech-specific legal framework. FinTech regulation is instead fragmented and implemented through sector-specific legislation and regulation as well as general law that cuts across various sectors (Didenko, 2017; Chambers, 2021).[2] An alternative argument could be made, that fragmentation may in certain instances be viewed positively as it may provide regulators the flexibility to respond rapidly to specific risks and issues generated by specific activities.

Additional barriers for growth of FinTech in SSA are the low levels of government and regulatory support and a lack of quality infrastructure (Deloitte, 2017). With respect to regulatory challenges more specifically, one of the critical concerns relates to the lack of legal certainty and clarity regarding the applicability of existing legal frameworks to FinTech activities (Didenko, 2017). Other concerns arise in the implementation of regulatory frameworks and are connected to the need to ensure equal treatment of providers particularly between new entrants and incumbents. This is no easy task in view of the recurring concerns about ensuring regulatory requirements are applied in a proportionate manner (Didenko, 2017).

The application of discretionary powers also poses a challenge. Regulators often have the powers to exercise discretion, and in the case of FinTech innovations that fall outside of existing frameworks, they may need to rely on these powers – for instance to issue a letter of no objection or other such exemptions. In this regard, the need to exercise regulatory powers within clear limits of discretion defined by law has been highlighted as a challenge (Didenko, 2017), pointing to concerns that regulatory arbitrariness could be created by unfettered discretion.

Similarly, regulatory arbitrage is another ongoing issue for regulators as some FinTech products are offered by entities who do not fall within the remit of financial sector regulators. An example of this is activity conducted by P2P lending platforms (discussed in **Chapter 4**). This is giving rise to a build-up of risks outside the regulatory perimeter in several SSA jurisdictions. For example, in Kenya and Tanzania, there are general concerns about digital lending practices as reports of late repayments, defaults and other consumer protection malpractices continue to surface (Pazarbasioglu, *et al.*, 2020).

2 In the UK also has no single regulatory regime for FinTech, and regulation is dependent on activities and business model.

Difficulty in coordination and potential conflicts of jurisdiction in regulating and supervising FinTech is another frequently cited challenge (Didenko, 2017). To address this, a recurrent recommendation is the encouragement for regulators to enhance both domestic, and where viable, international regulatory coordination (Didenko, 2018). Regulators in many SSA jurisdictions have attempted to rise to this challenge by entering into Memoranda of Understanding (MOUs). An additional example of good practice is the establishment of an Inter-Governmental FinTech Working Group (IFWG) in South Africa – a solution that brings together various regulators with a mandate over FinTech activity (IFWG, 2007).

Finally, regulatory innovation initiatives may be challenging to implement in SSA on account of resource constraints. It is suggested that the lower incidence of innovation initiatives in SSA may be indicative of the magnitude of the challenge. However, this study has identified an increase in initiatives during COVID-19. In a past CCAF study, the need for lower-income jurisdictions to implement more appropriate regulatory innovation options, such as innovation offices, which may be more cost-effective as compared to regulatory sandboxes, was identified (CCAF and World Bank, 2019).

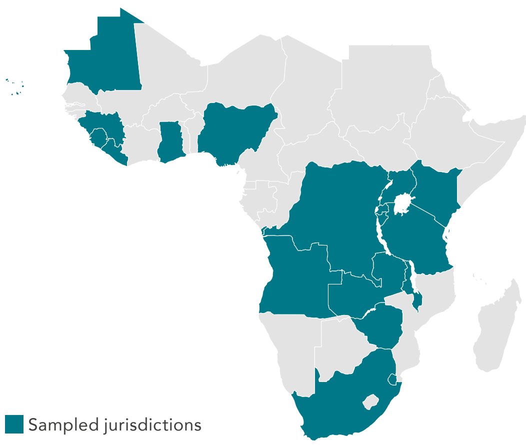
Methodology

Sampled jurisdictions and data sources

This study was designed and implemented to evaluate the current regulatory environment relating to FinTech in the SSA region. To do this, a representative sample of jurisdictions across SSA were selected. A key inclusion criterion was representation in previous CCAF regulatory innovation surveys to allow primary data collected for the purposes of this study to be merged with existing datasets. In particular, a jurisdiction was included if they had at least one regulator who responded to the 2020 Global COVID-19 Regulatory Rapid Assessment Study and the Regulating Alternative Finance 2019 Study (CCAF and World Bank, 2020; CCAF and World Bank, 2019). These previous studies evaluated the impact of COVID-19 on the regulation of FinTech and regulatory innovation initiatives, as well as understanding the global regulatory landscape with respect to the regulation of alternative finance. This approach has enabled some time-series observations as well the ability to juxtapose new data collected on regulatory frameworks with previous responses from regulators.

Twenty jurisdictions were identified where at least one regulator had responded to both surveys. The chosen jurisdictions represent a diverse sample in terms of income, legal systems as well as geographic distribution. **Figure 3.1** illustrates the jurisdictions which are included in the data collection exercise[3].

Figure 3.1 Sampled SSA Juristictions



3 The SSA jurisdictions selected for the study are: Angola, Burundi, Cabo Verde, Democratic Republic of the Congo, Eswatini, Ghana, Guinea, Kenya, Liberia, Malawi, Mauritania, Mauritius, Nigeria, Rwanda, Sierra Leone, South Africa, Tanzania, Uganda, Zambia, Zimbabwe.

The breakdown of 20 jurisdictions based on the UN classification, is as follows: East Africa (9), West Africa (7) Central Africa (2) and Southern Africa (2).[4] The sample comprises a range of income groups based on the World Bank's income classification, including low income (9), lower middle income (9) with the remaining being upper middle income (2). The sample is also representative of both common law and civil law jurisdictions, with an equal share of jurisdictions in each category. The SSA region is represented in its entirety in the mapping of regulatory innovation initiatives as shown in **Chapter 6**.

This study further collected data through a primary desktop review of regulatory frameworks (laws, regulations, directives, guidelines and other regulatory information). The findings from the review were supplemented through bespoke surveys of regulators to address data ambiguities and gaps, and then consolidated into a single dataset. This dataset and earlier regulatory surveys were further supplemented with responses from FinTechs gathered from other CCAF publications, such as the CCAF, WEF and World Bank (2020) Global COVID-19 Fintech Market Rapid Assessment Study, and the CCAF (2021) Second Global Alternative Finance Market Benchmarking Report, to evaluate the challenges faced by FinTech sectors in SSA. Consequently, some of the insights are drawn directly from FinTech market participant and regulator responses.

Selected FinTech sectors and cross-sectoral themes

The FinTech sectors included for analysis in this study are those of digital payments, e-Money (including mobile money), international remittances, P2P lending, and ECF. The 2020 Global COVID-19 Regulatory Rapid Assessment Study (CCAF and World Bank 2020) identified these sectors as growing in importance and/or as sectors where increased market activity in light of COVID-19 had been observed. The digital payments and remittances sector was a leading sector where regulators had reported both increased usage and offering of FinTech products and services, as well as where regulators had most frequently introduced targeted regulatory measures.

A second criterion was to look at the verticals where there was historical CCAF data available regarding the regulatory approach to FinTech. During the 2019 Regulating Alternative Finance survey (CCAF and World Bank, 2019), data was collected on the regulatory approach to P2P lending and ECF, both globally and across SSA.

The cross-sectoral legal and regulatory frameworks included for analysis in this study are those of consumer protection, data protection, open banking, AML, eKYC and cybersecurity. These were selected as the most significant cross-cutting requirements of relevance to the FinTech sector. Cross-sectoral requirements affect FinTech development as they can limit the ability of FinTech to scale. As noted in the study, such cross-sectoral issues can impact regulatory aims and mandates as well as have an impact in FinTech and DFS more broadly.

Analytical approach

The datasets generated from past CCAF studies, together with the findings from the desk-based reviews and responses received from the regulatory outreach exercise, were used to conduct an in-depth study of the regulatory approach to FinTech in the sampled jurisdictions across the selected FinTech verticals and cross-sectoral areas.

The datasets generated through the primary desktop review of regulatory frameworks was used in **Chapters 4, 5 and 6** to provide a description of the regulatory environment in the selected verticals and the cross-sectoral areas, and to map out the regulatory innovation initiatives. In **Chapter 7**, the datasets from previous CCAF studies were supplemented by other sources including payments data from the IMF, World Bank, and GSMA, together with other secondary literature. These were used to distil regional

4 North Africa will be covered in a forthcoming MENA CCAF study.

insights that sought to explain the unevenness in the regulatory landscape. In Chapter 8, we identify the themes for possible future research on the region.

Due to the widespread variability in regulator remits and responsibility over specific regulatory themes, this study looks at the jurisdiction and not individual regulators as the basic level of analysis. It must also be noted that the sample on occasion differs, since data from previous studies refers to the number of regulators surveyed, whereas the research on frameworks refers to number of jurisdictions. Instances where the sample differs are indicated clearly throughout the study, together with their sources.

4. Regulatory approach in specific verticals

4. Regulatory approach in specific verticals

This chapter evaluates the current state of play in specific FinTech verticals for the 20 chosen jurisdictions surveyed. The existing regulatory legislation and broader framework are important for the development of FinTech as market providers seek to navigate the regulatory environment. Some of the verticals such as payments are a growth sector in the region, while others, such as P2P lending, are still nascent relative to other regions.

Digital payments

The payments sector has been described as the "flagship sector" of FinTech in SSA (Yermack, 2018). Its dominance is attributed to "a large unbanked population and correlated with high demand for financial inclusion" (HM Treasury, 2021).

This section considers the regulatory approach to payments, and related sub-sectors (including, e-Money, mobile money and international remittances) in key SSA jurisdictions.

Payments: Mandate/authority

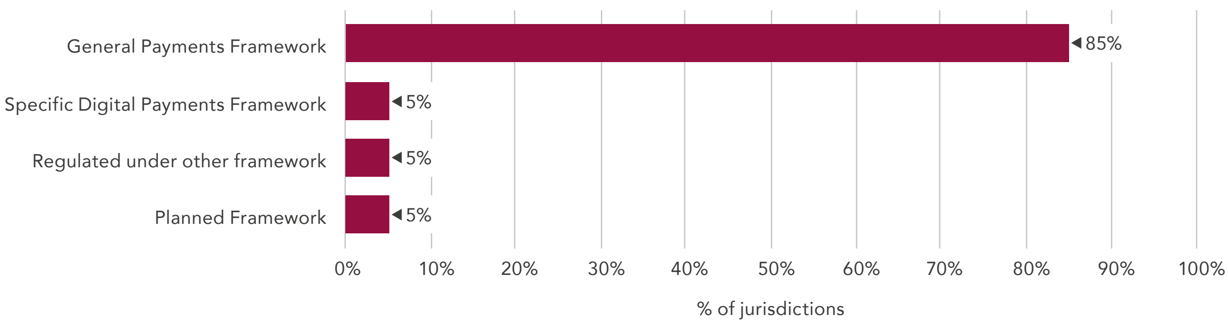
The findings indicate that all sampled jurisdictions in SSA have a regulator/agency with a mandate/authority for payments. Additionally, in 79% of sampled jurisdictions, the central banks are mandated to oversee payments. In 5% of SSA jurisdictions, an alternate financial regulator has a mandate/authority for payments. This is the case in Mauritius, where the Financial Services Commission is the regulator and supervisor for payments activity.

Payments: Regulatory framework

Figure 4.1 illustrates the approaches adopted with regard to the regulatory framework for payments. In 85% of sampled jurisdictions in SSA, the regulation of payments generally is undertaken based on an existing general payments regulatory framework. This is typically a broad framework that encompasses provisions that are applicable to different categories of payments activity. It may incorporate provisions on digital payments in the form of e-Money (including mobile money) and international remittances.

Conversely, one of the sampled jurisdictions (Guinea) has introduced a more targeted digital payments specific framework to address developments in DFS.

Figure 4.1: Instances of regulatory frameworks for payments – SSA (N=20)



Note: N denotes the number of jurisdictions surveyed.

Payments: Licensing/authorisation

In 70% of sampled jurisdictions in SSA, the regulatory frameworks require that providers obtain a licence from the relevant authority prior to engaging in payments activity. In 15% of jurisdictions, the frameworks prescribe other requirements, for example, a provider may be required to be licensed as well as registered. In Angola and Cape Verde, the central bank requires authorisation and additionally registration.

E-money (including mobile money)

E-Money, including mobile money[5], is one of the leading FinTech verticals in SSA. The region has received universal acclaim as a world leader in mobile money accounts per capita (IMF, 2019a). In 2020 it is reported that SSA accounted for most of the growth in registered mobile money accounts (43% of all new accounts) (GSMA, 2021). In addition, it is reported that transactions via mobile money, account for approximately 20% of GDP in comparison to 7% in Asia and under 2% in other regions (IMF, 2019a). Another study indicated that the top thirteen countries with the highest mobile money user bases in comparison to their population were all in SSA (Didenko, 2018).

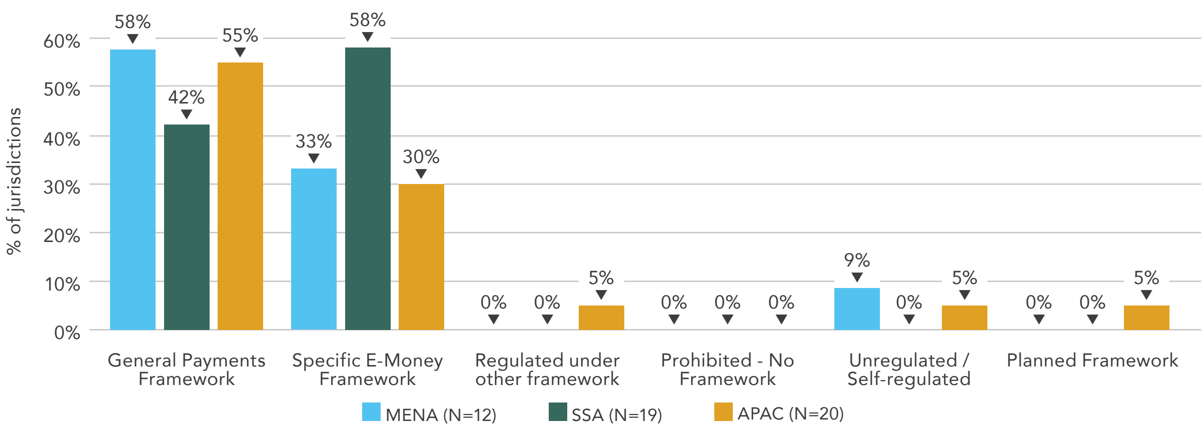
E-Money: Mandate/authority

Of the sampled jurisdictions 95% have a regulator with a mandate for e-Money issuance. There is a strong prevalence of central banks holding this mandate (68%). The findings also illustrate that multiple regulatory authorities may also be involved in or relevant for FinTech regulation (32% of jurisdictions). Telecoms/communications regulators typically have a joint mandate with the central bank over e-Money, with the latter holding the primary mandate. Examples of multiple regulator involvement can be found in the Democratic Republic of Congo, Ghana, Guinea, Kenya, Malawi and Sierra Leone. In some of these jurisdictions, regulators indicate that they have signed MOUs to govern their overlapping mandates, such as the MOU in Malawi between the Reserve Bank of Malawi (RBM) and the Malawi Communications Regulatory Authority, MACRA (UNCTAD, 2019). Other regulators who hold a cross-cutting mandate such as that held by competition regulators, have also been shown to be relevant (Mazer & Rowan, 2016).

E-Money: Regulatory framework

The approach to the regulation of e-Money varies across SSA. Whereas this is at times provided for under a general payments framework, in other cases it is covered under an e-Money specific (bespoke) framework. A cross-regional comparison of the different approaches in SSA, Middle East and North Africa (MENA), and Asia Pacific (APAC) reveals that the highest instances of bespoke e-Money frameworks are in SSA. As mentioned above, SSA is also where we have the highest market penetration of e-Money globally.

Figure 4.2: Instances of regulatory frameworks for e-Money – SSA, MENA, APAC (N=51)



Note: N denotes the number of jurisdictions surveyed.

5 In this study we have captured findings that relate to both e-Money and mobile money, and we discuss e-Money as including mobile money.

The SSA-specific findings in **Figure 4.2** further demonstrate the varied approaches that have been adopted in the sampled jurisdictions. It is significant that there is a split between coverage under an e-Money specific framework (58%), and inclusion under a general payments framework that contains explicit provisions that target e-Money (42%). This suggests good regulatory outcomes are still achievable even where general payment laws are applied, as in SSA.

E-Money: Licensing/ authorisation

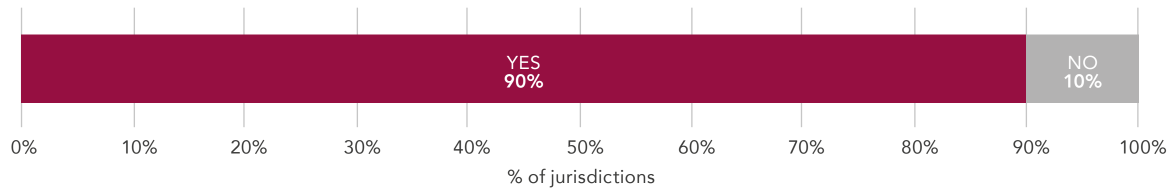
The study findings indicate that to engage in e-Money activity, issuers in 82% of sampled jurisdictions are required to obtain a specific licence from the relevant regulator. In 18% of jurisdictions, other requirements are prescribed. For example, a provider may be required to be licensed as well as registered, as in Cape Verde. Besides licensing or authorisation, wording such as "approval" is also used in some of the regulatory provisions, for example in Guinea and Mauritius.

E-Money: Use of agents

Agents acting on behalf of financial service providers play a pivotal role and are a key contributor to digital financial inclusion. Research shows that in 2019, mobile money agents operating globally converted $176 billion from cash to digital value (GSMA, 2020). This sum is said to have exceeded the total value of formal international remittances flows to SSA, Latin America and the Caribbean combined in the same year (GSMA, 2020).

The findings in **Figure 4.3** suggest the use of agents is permitted in the regulatory frameworks for e-Money in a vast majority of SSA jurisdictions (90%).

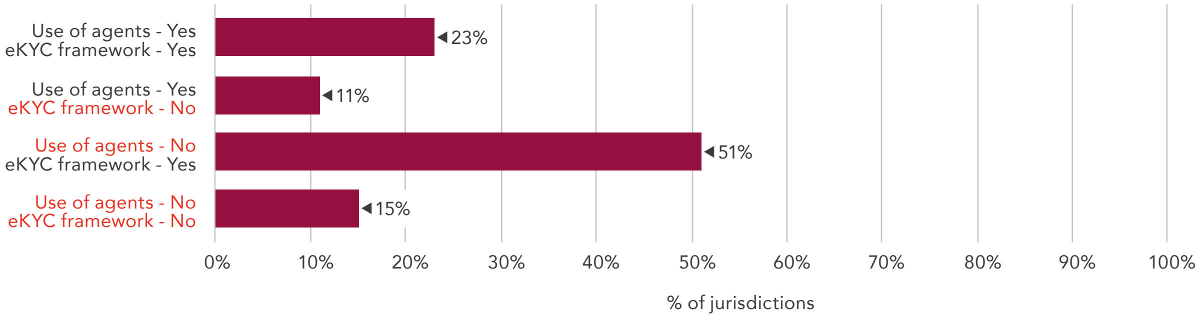
Figure 4.3: Instances of agents permitted within the regulatory framework - SSA (N=20)



Note: N denotes the number of jurisdictions surveyed.

A further analysis was conducted to identify any linkages between jurisdictions where the use of agents is permitted alongside the existence of eKYC provisions. **Figure 4.4** suggests that agents are less likely to be permitted in jurisdictions across SSA, MENA and APAC that have introduced eKYC requirements (51%). This finding may be partially explained by the fact that where it is possible to undertake eKYC, the need for agents may be diminished. In many jurisdictions where agent usage in the context of e-Money is prevalent, KYC is typically one of the activities these agents undertake. At the same time, this is likely only a partial explanation, as agents do more than just undertake KYC as part of broader customer onboarding. According to the GSMA (2019b), they are described as "the face of mobile services". Moreover, they are considered integral in the provision of a convenient and trusted way to enable the conversion of cash to e-Money and vice versa. They additionally engage in other activities, such as customer support and education (GSMA, 2020) on behalf of their principals.

Figure 4.4: e-Money: Relationship between agent permission and eKYC provision – SSA, MENA and APAC (N=53)



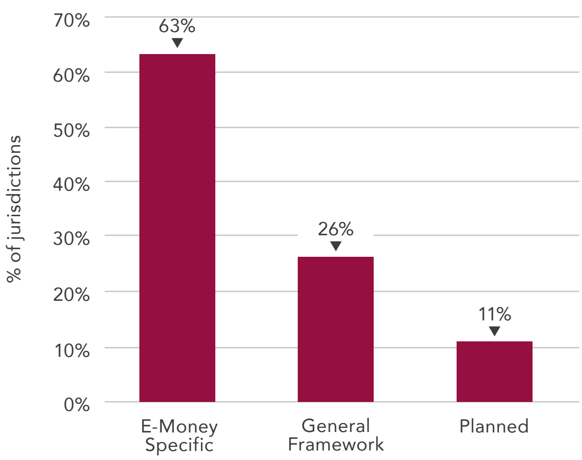
Note: N denotes the number of jurisdictions surveyed.

The requirements relating to the use of agents in many SSA jurisdictions have generally been driven by a strong financial inclusion agenda, and mandated by policymakers and regulators, as a means of addressing 'last-mile' problems in the region. It could therefore also be argued that agents may be less critical to market infrastructure when financial service providers have a wider footprint allowing for easier customer access to services.

E-Money: Safeguarding customer funds

Trust is an essential element for promoting usage of e-Money by customers. The likelihood of customers transacting at higher frequency may be expected where they have a measure of confidence that their funds are safe and accessible, even in the event of a firm's failure. Requirements relating to deposit insurance and protection of customer funds (safeguarding arrangements) are arguably important in fostering this sense of trust.

Figure 4.5: e-Money: Instances of specific deposit insurance framework/framework for protection of customer funds - SSA (N=20)



Note: N denotes the number of jurisdictions surveyed.

Figure 4.5 demonstrates that 63% of jurisdictions in SSA have e-Money specific safeguarding arrangements. In 26% of jurisdictions, this is provided for under a general framework.

International remittances

International remittances are a key sector in many SSA jurisdictions. It is notable that this activity may be undertaken by traditional payment services providers such as banks as well as e-Money issuers.

Of relevance to FinTech, GSMA (2017) highlighted that mobile money has been crucial for enabling international remittances at lower costs. Further it was found that it is possible to channel international remittances via mobile money in 51 out of 92 countries with mobile money deployments.

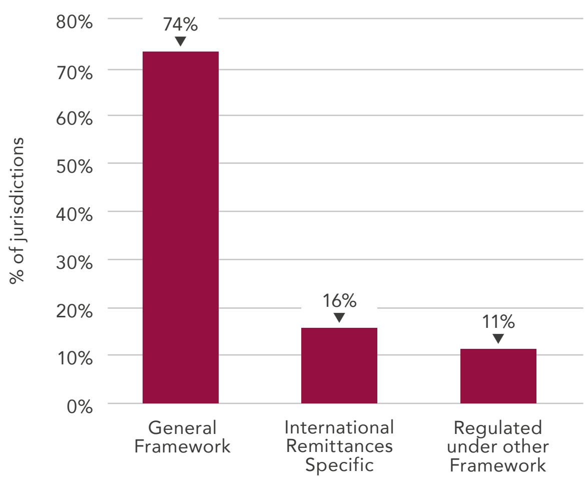
International remittances: Mandate/authority

The findings indicate that all the SSA jurisdictions sampled have a regulator with a mandate for international remittances, with central banks as the most common (89%). In 11% of jurisdictions, multiple regulatory authorities are also involved. This is especially true in cases where e-Money providers engage in international remittance activity. As was discussed in the e-Money section above, telecoms/communications regulators will typically share a joint mandate together with the central bank over e-Money. It is presumable that in many cases this mandate would also extend to e-Money activity with respect to international remittances.

International remittances: Regulatory framework

The regulatory approach in SSA reveals that the requirements pertaining to international remittances are in most instances contained within a general payments framework (74%). There are also international remittances specific frameworks (in 16% of sampled jurisdictions) and in other instances providers are regulated under other frameworks such as Exchange Control Act and Regulations (11%) as seen in **Figure 4.6**.

Figure 4.6: Instances of regulatory frameworks for international remittances - SSA (N=20)



Note: N denotes the number of jurisdictions surveyed.

International remittances: Licensing/authorisation

The study also examined whether international remittance providers are required to obtain a specific licence from a relevant authority. The findings indicate that 72% of jurisdictions in SSA stipulate licence/authorisation only. On the other hand, 28% prescribe other requirements including registration, in addition to licensing. Jurisdictions that stipulate other requirements include those where both licensing and registration is required, for instance Angola, Cape Verde and Sierra Leone.

It is significant that licensing has been identified by the GSMA as a key barrier faced especially by mobile money providers in the remittances sector. It is suggested this challenge arises due to providers being unsure of both the licensing criteria, and timelines for receiving responses from the regulator (GSMA, 2017).

P2P lending

Peer-to-peer (P2P) lending is a collective term that describes business models where a group of individual or institutional investors provide a loan to a consumer or business borrower. In its most orthodox form, the P2P lending platform acts as a marketplace that connects the borrower and investors. Depending upon the jurisdiction, this model may be referred to as loan-based crowdfunding, marketplace lending or crowdlending.

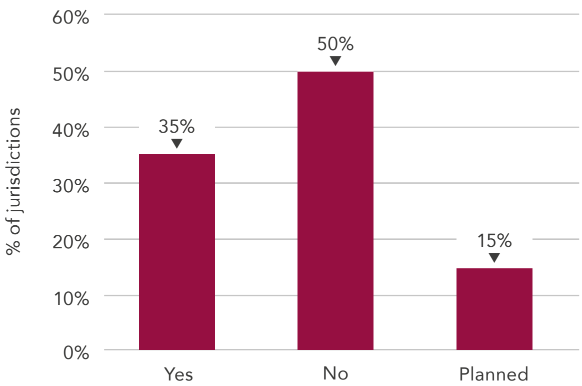
Regulatory responses to P2P lending have varied – some regulators have sought to introduce 'light-touch' regulation to encourage the market in providing an alternative source of borrowing, while other regulatory authorities, in response to particular risks, have sought to restrict the market by capping lending volumes and/or restricting use to certain types of 'sophisticated' or high net worth borrowers.

P2P lending continues to be a small but growing segment of the financial services marketplace in SSA. According to a CCAF study, it does not however have a "meaningful presence" as part of global P2P lending activity. The SSA market for P2P lending appears to be led by Ghana, Zambia and Uganda (CCAF, 2021), although volumes are still comparatively small, relative to other regions (Rajkumar, 2017). The presence of clear regulations, or supportive signalling by the regulator for P2P lending seems to correlate with increased market activity. Having greater certainty about the regulatory treatment of these models may be one factor that gives firms the confidence to develop their propositions.

P2P lending: Mandate/authority

The regulatory response to P2P lending in SSA has been varied. As **Figure 4.7** shows, 50% of the sampled jurisdictions in SSA do not have an agency with a mandate to oversee P2P lending activities. This differs from other regions. CCAF research looking at the regulatory approach to FinTech in the MENA region suggests that only 25% of sampled regulatory bodies in MENA do not have a mandate for P2P lending. It is notable that 15% of sampled jurisdictions are planning to adopt a mandate for P2P lending, higher than in other regions analysed, perhaps suggesting a trend that regulators in SSA are looking to act on in the future.

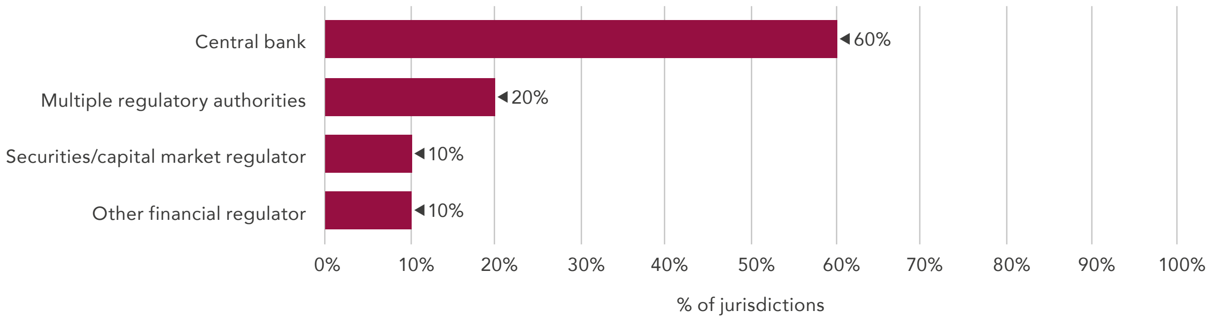
Figure 4.7: The jurisdictions with a mandate for P2P lending – SSA (N=20)



Note: N denotes the number of jurisdictions surveyed.

Figure 4.8 provides a breakdown of which type of regulatory authority has a jurisdiction over P2P lending in countries where a mandate exists. As can be seen in payments, equity crowdfunding, and certain cross-cutting regulatory frameworks, central banks are most likely to have this mandate. This strongly contrasts with other regions we have analysed. For example, in APAC, central banks only had a mandate in 21% of cases, with the vast majority (71%) reported being regulated by securities and/or capital market regulators. SSA appears striking in this approach compared to other regions, although given the relative dominance of central banks in the regulation of financial services in SSA more broadly, it is perhaps not unexpected.

Figure 4.8: Regulators with mandate over P2P lending - SSA (N=10)



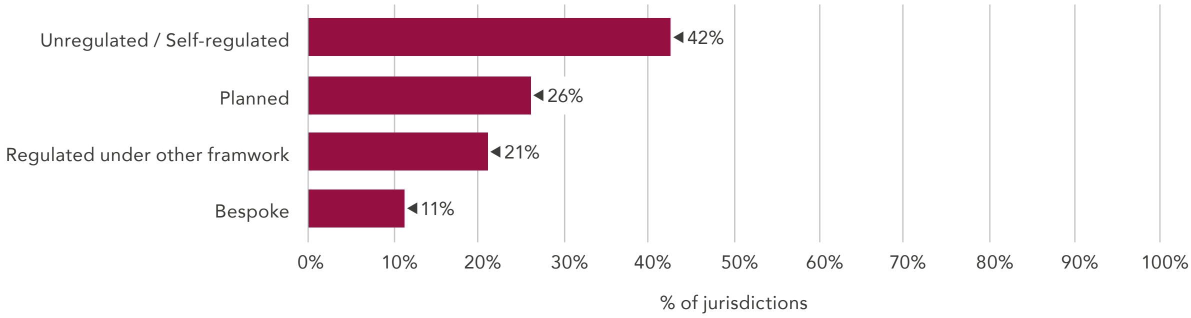
Note: N denotes the number of jurisdictions surveyed.

P2P lending: Regulatory frameworks

As **Figure 4.9** shows, there are a wide range of regulatory approaches to P2P lending in SSA. Only 11% of agencies in the sample have bespoke frameworks in place (that is, a framework specifically and exclusively for P2P lending). The instances of bespoke frameworks are much lower in SSA in comparison to MENA (50%) or APAC (50%) regions. However, a significant number (26%) are currently in development. P2P lending is regulated under an existing regulatory framework in 21% of agencies – in these cases P2P lending is typically captured by existing regulation that applies to firms undertaking securities trading, credit or payments activities.

The relatively low proportion of authorities with bespoke frameworks for P2P lending in SSA again appears striking when compared to other regions of the world. In comparison, 50% of the sampled regulators in MENA have bespoke frameworks.

Figure 4.9: P2P lending regulatory framework - SSA (N=19)



Note: N denotes the number of jurisdictions surveyed.

P2P lending: Licencing and consumer safeguards

The CCAF's 2019 global regulatory benchmark survey (CCAF and World Bank, 2020), identified the key risks of P2P lending according to regulators. These include the risk of capital losses to investors (identified by almost 90% of regulators) and platform failure. Many regulators around the world have sought to address these risks through licensing conditions and establishing appropriate consumer safeguards.

For those authorities that regulate P2P lending in SSA, either through bespoke or existing frameworks, certain licensing requirements are common. In these jurisdictions, agencies commonly put in place thresholds for firms to meet in order to obtain a licence. For example, in 66% of jurisdictions there are minimum capital requirements in place for P2P lending platforms to acquire a licence (compared to 33% of agencies with no minimum capital requirements).

There are various consumer safeguards that authorities have sought to introduce to mitigate some of the risks of P2P lending, including limits on borrowing, restricting the types of investors P2P lending is available to, and capping interest rates. This study finds that borrowing limits for retail borrowers are uncommon in SSA. Only around 23% of sampled jurisdictions limit the total amount an individual can borrow through a P2P lending platform. This contrasts to around 30% of agencies sampled in MENA. Similarly, few agencies limit the total amount an individual P2P lending platform can lend to borrowers, with only 6% capping the total amount of lending. Finally, only 5% of agencies surveyed cap the interest rate percentage charged on P2P loans.

Equity crowdfunding

Equity crowdfunding (ECF) is a collective term describing business models where individuals and/or institutional funders purchase equity issued by a company. ECF is typically done via an intermediary online platform that facilitates the sale of securities or 'stakes' in a business (typically an early-stage business), to sophisticated, institutional and retail investors.

ECF remains nascent in much of SSA. It was estimated that ECF accounted for just USD $1m in volume in 2020, compared to over $100m for P2P/marketplace consumer lending (CCAF, 2021) with most activity undertaken in Ghana, Senegal and South Africa. This compares to total volumes of circa $12m, in MENA, and over $300m in APAC (CCAF, 2021)[6].

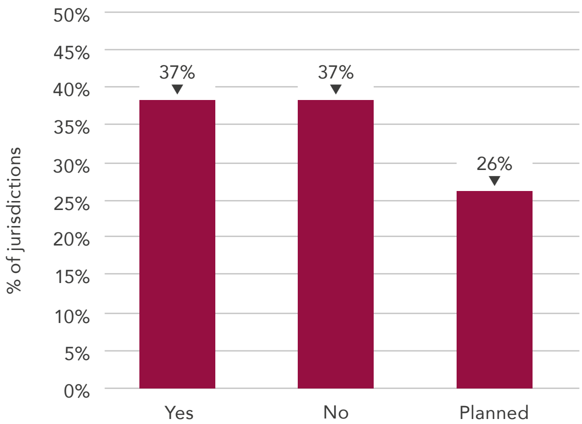
The relative lack of activity is mirrored by a historic lack of active regulation. In 2018 it was asserted that ECF was "not currently regulated in any African countries" (Moed, 2018). CCAF analysis in 2019 found that ECF was only regulated in 12% of jurisdictions in SSA (CCAF and World Bank, 2019). However, this same research found that 64% of regulators sampled in SSA expected future changes to the regulation of ECF in SSA.

6 Digital Capital Raising Data for all nations surveyed is available here: https://ccaf.io/gafb/digital_capital_raising/total_global_ranking

Equity crowdfunding: Mandate/authority

Figure 4.10 shows that 37% of jurisdictions in this sample have a specific mandate for ECF. Similar to P2P lending, there are a few jurisdictions looking to develop a mandate for this activity in the future. These findings contrast strikingly with other regions – for example, 83% of the jurisdictions surveyed in APAC have a mandate for ECF, perhaps reflecting the relative lack of maturity in the market for ECF in SSA.

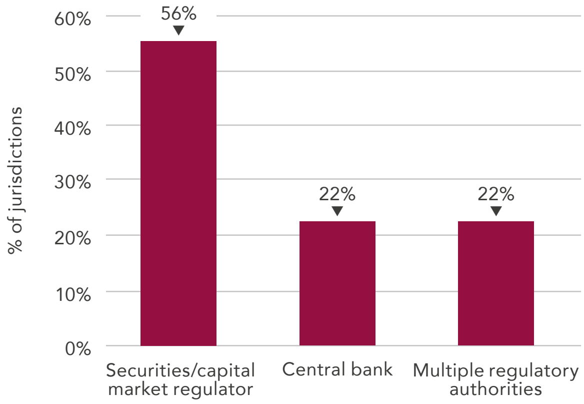
Figure 4.10: Equity crowdfunding mandate – SSA (N=16)



Note: N denotes the number of jurisdictions surveyed.

As shown in **Figure 4.11**, for those jurisdictions that have a mandate for ECF in SSA, the mandate most often sits with the securities and/or capital markets regulator. This is consistent with findings in other regions analysed. This is perhaps expected, as many regulators treat ECF as akin to other ways of raising equity and issuing securities in a business.

Figure 4.11: Regulators with mandate for equity crowdfunding – SSA (N=8)

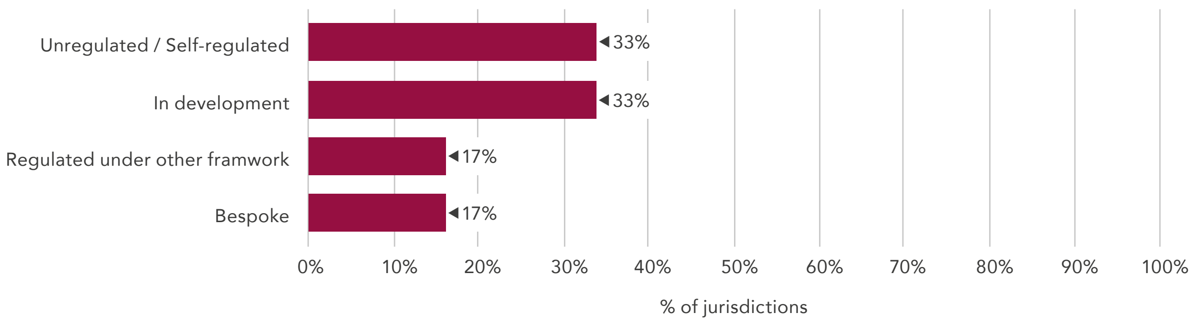


Note: N denotes the number of jurisdictions surveyed.

Equity crowdfunding: Regulatory frameworks

As shown in **Figure 4.12**, 17% of these jurisdictions have created bespoke frameworks for the regulation of ECF (including Nigeria, whose regulatory approach is considered in more detail in the case study), and 17% apply existing frameworks (for example, existing frameworks for raising equity capital) to the application of ECF. These findings in SSA contrast with other regions analysed. Jurisdictions in MENA and APAC are far more likely to regulate ECF through bespoke frameworks (for example, 77% of jurisdictions surveyed in MENA have bespoke frameworks in place).

Figure 4.12: Specific regulatory framework on equity crowdfunding - SSA (N=18)



Note: N denotes the number of jurisdictions surveyed.

Equity crowdfunding: Licensing and consumer safeguards

As with P2P lending, where ECF is regulated, specific licensing requirements and consumer safeguards are generally introduced to ensure ECF platforms are sufficiently robust and that consumers not only understand the risks of investment but are also appropriately protected from losses.

The small number of sampled regulators in SSA with specific mandates for ECF hinders a robust analysis of trends. The limited analysis undertaken suggests that, for jurisdictions that have bespoke frameworks or regulate ECF under existing frameworks, minimum capital requirements for an ECF platform to be licensed are in place.

Regulators also seek to limit the percentage of a retail investors' investment portfolio which can be invested via ECF. In the majority of cases in the small sample, regulators have chosen to limit the amount ordinary retail investors are permitted to invest. On the sell side, one regulator in our sample has limited the total amount of equity an entity can issue through ECF (in regions which more commonly regulate ECF, this is a frequent safeguard – for example 92% of sampled regulators from APAC have this control in place).

5. Cross-sectoral themes

5. Cross-sectoral themes

FinTech development is often linked with cross-cutting financial regulations and frameworks. For example, in a World Bank survey of regulators on the issue of payments systems, the regulators considered that cross-sectoral regulation, such as AML, are increasingly important in the ability to develop payment systems further (World Bank, 2021). In addition, there is greater awareness of FinTech and financial consumer protection, data protection and cybersecurity by regulators in the region, as indicated in **Figure 2.2**. The cross-sectoral frameworks examined here are policy enablers "that support the development of FinTech activities and the use of enabling technologies" (Ehrentraud, *et al*., 2020).

We identify the existing frameworks on AML (including eKYC), data protection (including sharing of data arrangements such as open finance/open banking frameworks), cybersecurity and financial consumer protection as the cross-sectoral themes that can impact FinTech development.

The strong overlap between these frameworks and digital infrastructure initiatives is notable. Digital infrastructure refers to the enabling digital structures, facilities, financial innovation ecosystems and capabilities surrounding the provision of FinTech/DFS but can be more widely applicable beyond financial services. This might typically include infrastructure related to identity (e.g., digital identity initiatives), data analytics and sharing, credit information and/or payment systems. While these may be directly relevant for financial services, not all of these may be under the remit or jurisdiction of financial regulators.

Data protection

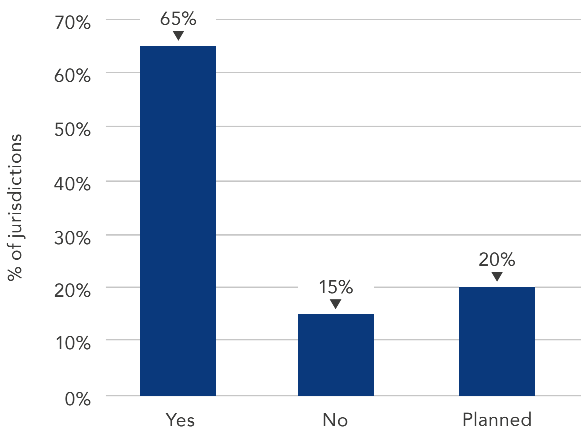
During COVID-19, digitalisation accelerated among regulators globally and government bodies increased their adoption of data protection and cybersecurity policies along with initiatives to build the foundations of a digital infrastructure. Examples include developing digital identities and authentication systems, promoting interoperability of critical networks and platforms (e.g., telecoms, banking systems) and creating a national broadband network (Ehrentraud, *et al*., 2020).

Shifting to DFS continues to pose various risks and challenges around the collection, storage, processing and exchange of consumer data by a variety of relevant parties. For example, the risk of exposing consumers to unauthorised disclosures and use of their personal data remains a priority for policymakers (Pazarbasioglu, *et al*., 2020). Hence, we identify national data protection frameworks and financial services specific data protection frameworks.

Data protection: Mandate/authority

The SSA specific findings as seen in **Figure 5.1** demonstrate the varied degree of national authority mandates for data protection. Our data suggests SSA jurisdictions have or are planning to have a mandate for data protection: 65% of jurisdictions currently have a mandate and 20% are planning to adopt one. A small but significant proportion (15%) of jurisdictions in our sample have no mandate for data protection.

Figure 5.1: The jurisdictions with a general mandate for data protection in SSA (N=20)

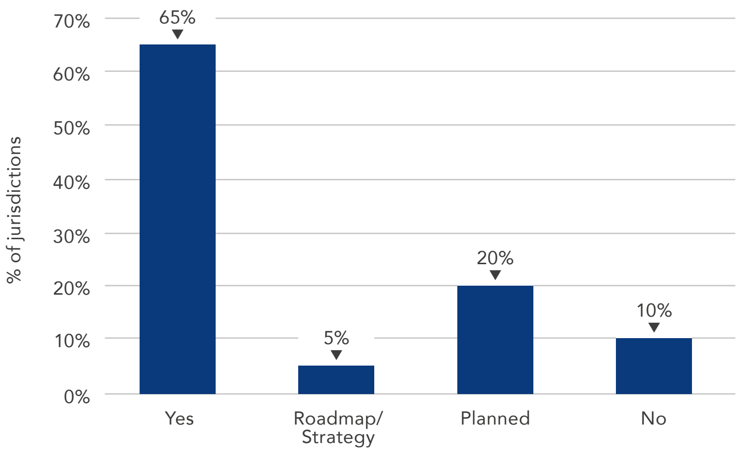


Note: N denotes the number of jurisdictions surveyed.

Data protection: General frameworks

In **Figure 5.2** the study identifies the existence of national data protection frameworks across economic sectors in SSA jurisdictions. It shows that 65% of jurisdictions have national data protection frameworks in place and 5% having roadmaps, strategies and principles, with 20% of respondents citing planned national frameworks and 10% having no identified framework in place or planned.

Figure 5.2: The national data protection frameworks in SSA (N=20)



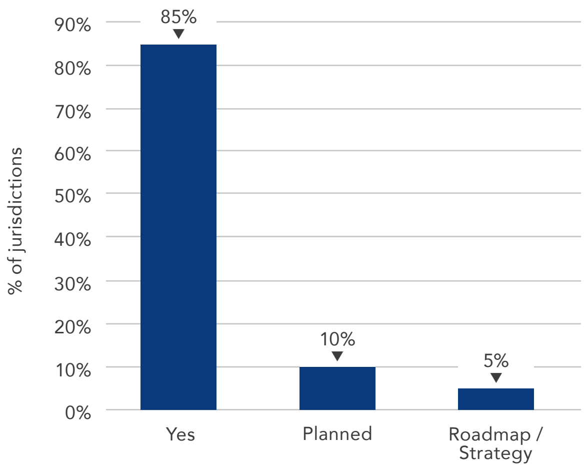
Note: N denotes the number of jurisdictions surveyed.

Data protection: Financial services industry

This section considers the data protection frameworks that specifically apply to the financial services industry in SSA. An inter-regional comparison between SSA, MENA and APAC illustrate that all three regions have similarly established consumer data protection frameworks in place across their financial sectors. Data protection in financial services has received renewed attention due to the increase in fraud and data threats during the COVID 19 pandemic (CCAF, WEF and World Bank, 2020; FATF, 2020d).

The SSA-specific findings, as shown in **Figure 5.3**, demonstrate a high proportion of SSA jurisdictions having established financial service industry data protection frameworks. In fact, 85% of jurisdictions currently have one in place, 10% have one planned, and 5% have a roadmap or strategy in place. This study's findings of the SSA region are similar to MENA, although there is a slightly larger cover of financial service industry frameworks in the surveyed jurisdictions in APAC.

Figure 5.3: The financial service industry data protection frameworks across SSA (N=20)



Note: N denotes the number of jurisdictions surveyed.

Cybersecurity

Digital finance and FinTech relies heavily on data infrastructure that can be susceptible to cyberattacks, system failures, and an over-reliance on third-party service providers, such as providers for cloud storage, data analytics and data provision. This may compromise business continuity and/or financial stability and is closely related to data governance specific concerns, particularly during the pandemic (Ehrentraud, *et al.*, 2020).

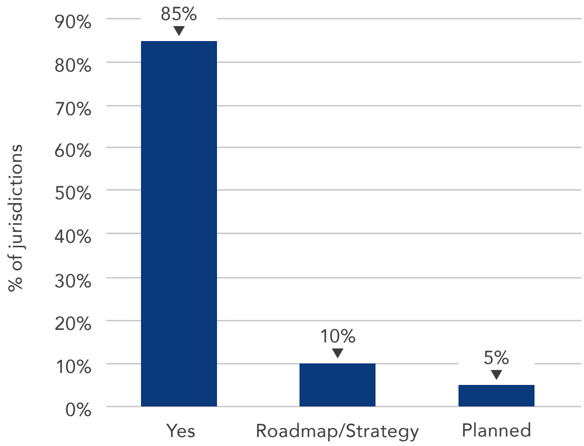
Cyberattacks are a threat to the financial system, as "cyber risks in FinTech have been publicly identified and acknowledged as an emerging risk to the financial sector in a majority of jurisdictions" (IMF, 2019b, p. 19). A significant number of jurisdictions reported an increase of cybercrime during the pandemic (FATF, 2020d). SSA regulators see rising risks in the FinTech market concerning cybersecurity as shown previously in **Figure 2.3**, with 69% claiming it as one of their top three increasing risks associated with FinTech activities due to COVID-19.

The section below sets out the findings relating to the regulatory approach for cybersecurity with reference to the following main categories: national regulatory mandate/authority, national regulatory framework and the financial service industry frameworks and measures.

Cybersecurity: Mandate/authority and national frameworks

All sampled jurisdictions in SSA have in place a national authority mandate for cybersecurity. In addition, in the sampled jurisdictions, 85% of jurisdictions have a framework in place, 10% have a roadmap or strategy in place, and 5% have one planned, as set out in **Figure 5.4**. The existence of national cybersecurity frameworks in the SSA is lower than the regional MENA (92%) or APAC (95%) samples.

Figure 5.4: Existence of national cybersecurity frameworks – SSA (N=20)

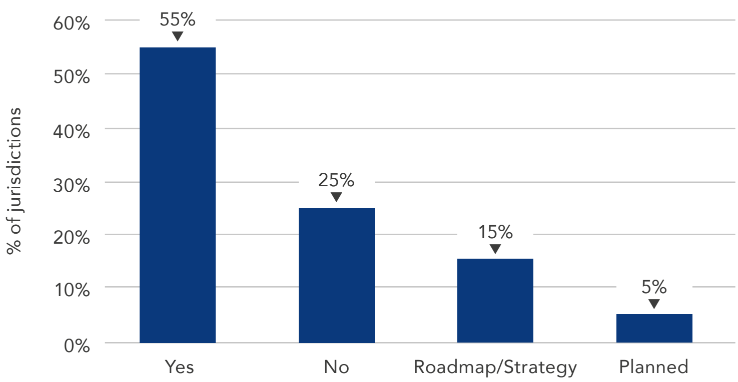


Note: N denotes the number of jurisdictions surveyed.

Cybersecurity: Financial services industry

Findings across SSA suggest that 55% of surveyed jurisdictions have cybersecurity frameworks in place that specifically relate to the financial sector. Moreover, as shown in **Figure 5.5**, 15% of jurisdictions have roadmaps or strategies, 5% have planned frameworks and 25% and have no frameworks in place. This suggests that financial sector specific cybersecurity frameworks are less likely to be in place than broader national cybersecurity frameworks.

Figure 5.5: The financial sector specific cybersecurity frameworks in SSA (N=20)

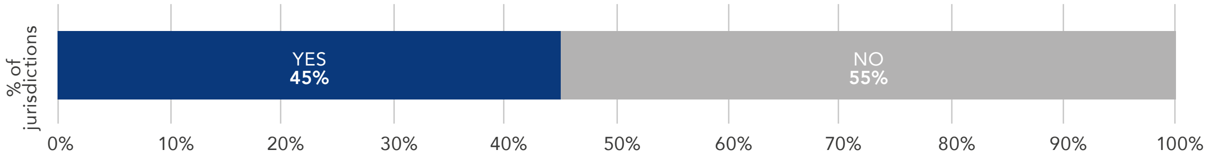


Note: N denotes the number of jurisdictions surveyed.

Cybersecurity: Efforts and measures during the pandemic

This study also examined the introduction of new specific cybersecurity efforts and measures in light of COVID-19 implemented by relevant authorities across SSA. According to the findings, 55% of jurisdictions surveyed indicated that they took no specific cybersecurity measures during COVID-19, as set out below in **Figure 5.6**. This is substantially lower than APAC, where 75% of sampled jurisdictions took some sort of cybersecurity measures as a response to the pandemic.

Figure 5.6: The COVID-19 cybersecurity efforts and measures in SSA (N=20)



Note: N denotes the number of jurisdictions surveyed.

Table 5.1 provides some examples of the cybersecurity measures regulators introduced, highlighting the variation of responses. For example, some jurisdictions, such as Kenya and Mauritius, implemented measures to help them combat the threat of malware scams and increases in phishing attacks. In addition, regulators provided guidance to the public and firms related to cybersecurity, and undertook education and training promoting 'cyber hygiene' in light of COVID-19.

Table 5.1: Examples of COVID-19 specific cybersecurity efforts and measures

JURISDICTIONS	COVID-19 CYBERSECURITY EFFORTS	EXAMPLES OF COVID-19 CYBERSECURITY MEASURES
Kenya	The National KE-CIRT/CC issued specific cybersecurity training with regards to cyber threats that affect organisations.	• Issued more than 40,000 cybersecurity advisories on the following topics, among others: - Malware - DDoS/Botnets - Web application attacks - System vulnerabilities - Online shopping fraud - SIM card swap fraud. • Provided a channel to study cyber incidents or vulnerabilities. • Issued regular cybersecurity bulletins.
Mauritius	The National Information Technology Authority-Uganda (NITA-U) issued COVID-19 precautionary measures and cyber-laws awareness during COVID-19.	The CERT of Mauritius issued online security alerts on the following topics: - Cybercriminals utilising the COVID-19 pandemic as a cyberattack vector - Critical vulnerabilities during COVID-19 - Malware scams - Embracing and securing a remote workforce - Cybersecurity in the time of COVID-19 - Signs of phishing - Spotting fake news.
Nigeria	The Central Bank of Nigeria (CBN) alerted the general public that cyber-criminals are taking advantage of the current Covid-19 pandemic	The CBN specified via their website the following cybersecurity measures: - Beware of verification emails or phone calls claiming to be from the Nigeria Centre for Disease Control (NCDC), World Health Organisation (WHO) or Government. - Avoid downloading mobile apps from untrusted sources. - Obtain relief package or other information from trusted news media.
Uganda	NITA- U Covid-19 precautionary measures and cyber-laws awareness during Covid-19.	NITA-U issued COVID-19 precautionary measures: - Fighting fake news. Up-to-date and trustworthy information is key to ensuring that unnecessary panic and anxiety is managed. To this end an informational portal, https://covid19.gou.go.ug has been created. - NITA-Uganda issued a bulletin called "Cyber-Laws Awareness" (NITA Uganda, 2020).

Open banking in SSA

Open banking has captured the attention of regulators globally, with many jurisdictions exploring how such programmes might enable increased competition and customer choice and realise the potential of DFS further. Open banking within a regulatory framework context refers to a standard set of sharing protocols, in most cases using an Application Programming Interface (API), in order to deliver consumer data between two unrelated financial services entities. Directed at rebalancing retail banking and related financial services, an open banking mandate seeks to enable increased competition and customer choice and realise the potential of DFS further.

There is an important relationship between financial sector cybersecurity, data protection and open banking. Open banking provides a framework to share protocols, while data protection and cybersecurity frameworks ensure that those who are sharing data and information have necessary safety measures in place.

Open banking, in practice leads to the exchange of data and information through APIs. APIs can be used to facilitate consumer data flows and empower individual and business consumers to own their data, and provide and rescind consent of its use. As noted by the BIS, "in recent years authorities have focused their attention on APIs since they provide a means of interaction between banks and third parties for sharing customer-permissioned bank-held data, which is a key element of open banking frameworks" (Financial Stability Institute, 2020, p. 33).

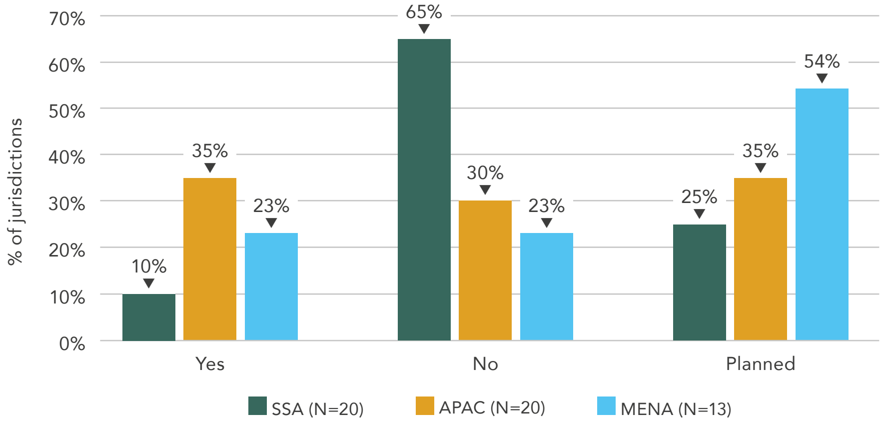
As such, open banking not only inherently underpins a strong consumer protection approach to data, but goes a step further by dictating parameters on how consumer data might be created, held, controlled and distributed. Open banking frameworks address how ownership of data is defined – changing the relationship between a bank and the client data they hold. Open banking specifically aims at shifting the ownership of consumer data, where banks move from data-owners to data-custodians. Traditionally, banks have held and controlled underlying client data, imposing considerable limitations on how that data could be used or shared. Thus, an open banking standard shifts this dynamic by placing the data ownership (or how said data can be used or shared) back to the end-user (OBWG, 2016).

By giving individual customers and clients ownership of their own data, open banking frameworks inherently shift the relationship between incumbent financial services (banks) and the client data they hold. Specifically, the ownership shifts from the incumbent to the individual, making the financial service provider a data custodian or holder, rather than a data owner vis-à-vis client data.

Though open banking frameworks as a policy innovation are on the rise globally, it is worth considering the willingness of regulatory authorities to implement open banking frameworks. In the SSA, we note that we did not identify plans for open banking initiatives in 65% of SSA jurisdictions indicated that they had no plans to implement an open banking framework. In comparison, we did not identify plans for open banking initiatives in 30% of regulators in APAC and 23% in MENA.

APAC has had several prominent examples of open banking or open API – Australia, Hong Kong and Singapore have successfully implemented open banking frameworks focused on API standardisation. However, it is important to note that not all frameworks have forced participation. This is contrary to other open banking regimes (i.e., the UK approach) which include compulsory rules for incumbent banks to adhere to data sharing. Rather, "traditional retail banks are being encouraged to develop more personalized and novel services in collaboration with TPPs" (Accenture, 2019, p. 3) in an effort to spur innovation.

Figure 5.7: Open banking frameworks – SSA, MENA, APAC (N=53)

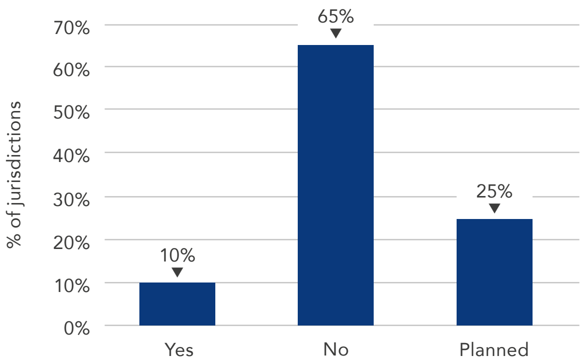


Note: N denotes the number of jurisdictions surveyed.

Open banking: Financial services industry

The SSA-specific findings as seen in **Figure 5.8**, illustrate that 65% of the surveyed jurisdictions have no open banking frameworks in place, 25% are planning to introduce an open banking framework, and only 10% (two SSA sampled jurisdictions: Burundi and Nigeria) currently have an open banking framework in place, (see the Nigeria case study). Both jurisdictions have made open banking mandatory, but it is unclear if the other 25% of jurisdictions currently contemplating an open banking framework will take the same approach.

Figure 5.8: The open banking frameworks - SSA (N=20)



Note: N denotes the number of jurisdictions surveyed.

When focusing further on the seven respondents that have or are planning to pursue open banking, an overlap exists with how regimes have pursued data protection or cybersecurity mandates in concert. Of the two respondents that currently have an open banking initiative (Burundi and Nigeria), we note that both have implemented specific financial service data protection rules. One of the two has also implemented financial sector specific cybersecurity standards, while the other has not, as identified in **Table 5.2**.

When considering the jurisdictions that are planning an open banking framework, we note that 43% of jurisdictions have financial service industry data protection and cybersecurity frameworks. **Table 5.2** provides an overview of SSA jurisdictions with an open banking framework in place or those planning to introduce an open banking framework. The table also considers examples of other policy enablers such as financial sector cybersecurity and data protection to further support the development of FinTech activities and the use of enabling technologies.

Table 5.2: Examples of Open Banking Frameworks and other policy enablers across SSA.

	OPEN BANKING FRAMEWORK IN PLACE	PLANNED OPEN BANKING FRAMEWORK	FINANCIAL SERVICE INDUSTRY DATA PROTECTION FRAMEWORK IN PLACE	FINANCIAL SERVICE INDUSTRY CYBERSECURITY ROADMAP / STRATEGY IN PLACE
Burundi	✔		✔	
Nigeria	✔		✔	✔
Angola		✔	✔	
Eswatini		✔	✔	✔
Ghana		✔	✔	
Kenya		✔	✔	✔
Rwanda		✔	✔	✔
Total	2	5	7	3

Financial consumer protection (FCP)

Financial consumer protection (FCP) encompasses the laws, regulations and institutions that ensure the safety of consumers in their use of financial services and products. An effective FCP regime can ensure that customers of financial products and services can make well informed decisions, protecting the development of financial services, and supporting the wider aims of financial stability, financial integrity, and financial inclusion (World Bank, 2017b).

Regulators face the challenge of effectively ensuring consumer protection in an increasingly DFS marketplace. Consumer protection is a key mandate for regulators around the world and is identified as an increasing concern in relation to FinTech in light of COVID-19, as seen in **Figure 2.2**.

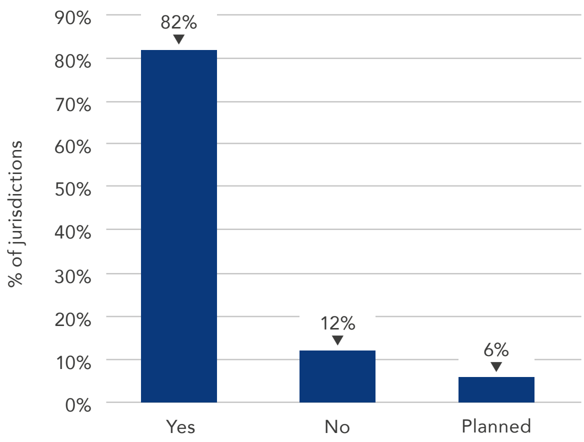
The G20 and the OECD have set up a task force to evaluate how to bring some coordination to matters of FCP. They introduced a series of high-level principles on FCP as a first step towards harmonisation of consumer protection (OECD, 2011). An important principle is that oversight bodies should have explicit responsibility and authority over matters of consumer protection. In addition, there should be clear legal and supervisory frameworks that allow the authorisation of financial services providers and their authorised agents. The G20 and OECD also introduced themes in consumer protection, such as the need for equitable and fair treatment of consumers, transparency of the financial products and services, responsible business conduct of service providers and their agents as well as the protection from misuse of consumer assets, data and privacy (OECD, 2011).

Financial consumer protection: Mandate/ authority

In **Figure 5.9**, we summarise the legal framework that enables FCP in our sample jurisdictions in SSA. Burundi does not have a legal framework for FCP, although the creation of a framework is part of its financial inclusion strategy (Republic of Burundi, 2015). Uganda does not have a legal framework with a specific reference to FCP but has regulatory guidelines, while FCP for microfinance specifically is included within the Microfinance Institutions Act and Money Lenders Act of 2018 (Innovations for Poverty Action, 2020). The Democratic Republic of Congo is planning on passing a bill on FCP as part of its efforts to strengthen its consumer protection framework (Centre for Financial Regulation and Inclusion, 2017). For 82% of sampled jurisdictions, there are FCP provisions within the broader financial sector legal framework, rather than specific consumer protection legislation (World Bank, 2017a).

The World Bank considers that effective FCP requires "a clear legal framework that establishes an effective regime for the protection of consumers of retail deposit and credit products and services" (World Bank, 2017b, p. 25) and there are examples of jurisdictions in the SSA sample without exclusive FCP provisions in their legal framework.

Figure 5.9: Incidence of national law with respect to financial consumer protection - SSA (N = 19)



Note: N denotes the number of jurisdictions surveyed.

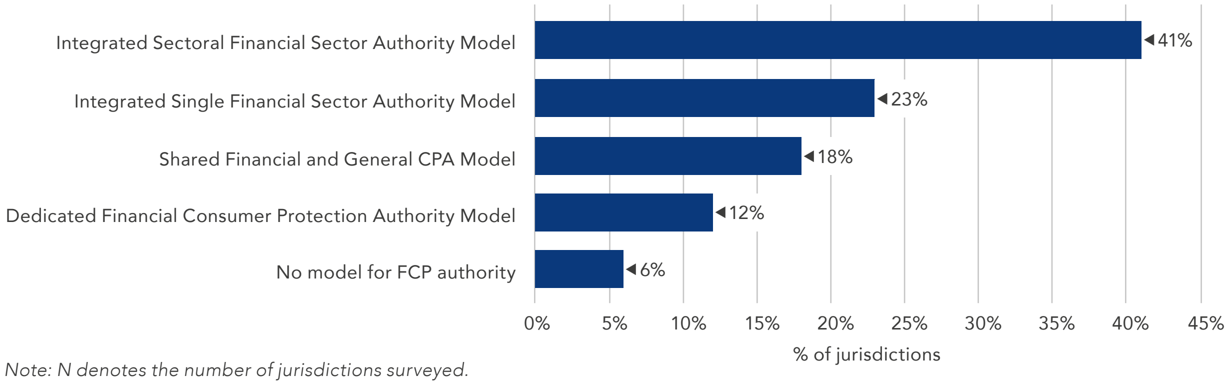
There are many models of institutional arrangements for FCP and there is no single model that is optimal for all jurisdictions. In order to map the types of institutional arrangements that pertain to FCP, we followed the nomenclature of the World Bank financial consumer protection survey (World Bank, 2017a). The World Bank classifies the differing regulatory arrangements as follows:

- **Integrated single financial sector authority model:** Where FCP supervision responsibilities fall under a single financial sector authority that is responsible for all aspects of supervision of all financial product or service providers.
- **Integrated sectoral financial sector authority model:** Where FCP supervision responsibilities fall under multiple financial sector authorities, each responsible for all aspects of supervision of financial service providers operating within specific financial sectors.
- **Dedicated financial consumer protection authority model:** Where FCP supervision responsibilities fall under a single authority primarily dedicated to FCP, or market conduct more broadly.
- **Shared financial sector and general consumer protection authority model:** Where one or more FCP authority and one or more general consumer protection authority share FCP supervision responsibilities.
- **General consumer protection authority model:** Where FCP responsibilities fall under one or more authority responsible for general consumer protection supervision within the jurisdiction.

The classification of our chosen SSA jurisdictions, as presented in **Figure 5.10**, indicates that 41% of the sampled jurisdictions have an integrated sectoral financial sector model where FCP in all its forms is provided by the regulator over the specific financial sectors under their remit. This may lead to complications where FinTech activities span across markets which might have one or more regulators.

The second most popular model is the integrated single financial sector authority model (24%) where a regulator can oversee all aspects of consumer protection across the entire financial sector. This model of consumer protection authority is favoured in jurisdictions where there is often a single regulator that integrates all the regulatory activities of financial services within its organisation, such as in Liberia. It is notable that there are jurisdictions where the authority to regulate issues relating to FCP is divided between the financial market regulators and the general consumer protection authorities (18%). There are two jurisdictions where FCP is under the purview of a dedicated authority. For example, in South Africa, the Financial Conduct Authority is a dedicated authority whose mandate cuts across most financial products and services.

Figure 5.10: Models of authority over consumer protection - SSA (N = 17)



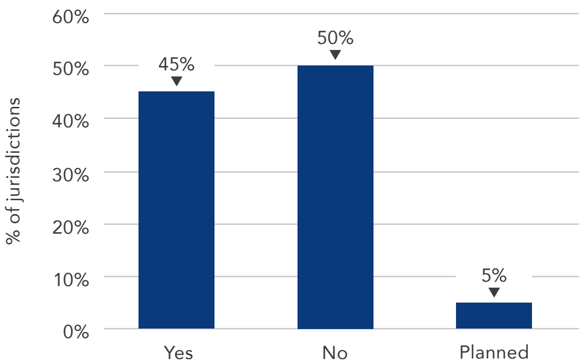
Note: N denotes the number of jurisdictions surveyed.

The G-20 high-level principles also state that authorities need clear responsibility and the authority to fulfil their mandate in the financial markets which they regulate. Hence there is concern that in jurisdictions with no explicit FCP (6% of jurisdictions), or where the responsibility is shared (18% of jurisdictions), the authorities might not have a clear distinction of their roles (World Bank, 2017b). This is important for FinTech companies, whose emerging activities might be still unregulated, or where their business proposition cuts across a number of regulators.

Figure 2.3 identifies consumer protection as an increased risk due to COVID-19 with respect to FinTech, in the opinion of SSA regulators. The global response to COVID-19 from a regulatory perspective led to many jurisdictions introducing new measures, including measures that relate to consumer protection. When comparing SSA to MENA and APAC, we see that only 45% of surveyed SSA jurisdictions increased FCP measures in response to the COVID-19 pandemic. This is lower than regulators who responded in both MENA (64%) and APAC (61%). In the jurisdictions that introduced measures with the onset of the pandemic, the emphasis was to disseminate information to the public and firms relating to increased scamming and fraud risks, as evidenced in **Figure 5.11**.

In addition, some jurisdictions enacted liquidity and financial stability measures which also had an impact on the ability of market participants to access their funds. There are also examples of projects linked to financial literacy which have been introduced. For example, in Angola, the Ministry of Social Action, Family and Women Promotion and the National Bank of Angola signed a partnership protocol with the scope of promoting education and financial inclusion.

Figure 5.11: Financial consumer protection measures in response to COVID-19- SSA (N = 20)



Note: N denotes the number of jurisdictions surveyed.

Some specific examples of FCP measures from the surveyed jurisdictions are presented in **Table 5.3**.

Table 5.3: Examples of FCP measures taken by SSA regulators in response to COVID-19

JURISTICTION	COVID-19 FCP EFFORTS	EXAMPLES OF COVID-19 FCP MEASURES
Kenya[7]	Facilitating and encouraging the use of mobile money transactions as a result of the COVID-19 pandemic.	The Central Bank of Kenya allowed the low-value transactions limit to increase while waiving charges in a time limited way. This allowed for 1.6 million additional customers to use mobile money channels. Specifically, the measures stated that: 1. There was no charge for mobile money transactions of up to Ksh 1,000. 2. The tariff for transactions above Ksh 70,000 remain. 3. There was no charge by payment service providers (PSPs) and commercial banks for transfers between mobile money wallets and bank accounts.
Nigeria	Noting a potential increase in fraud as a result of the more widespread use of e-commerce due to the pandemic, there was a push for more investment in data mining and artificial intelligence (AI) to monitor and study suspicious transactions.	On 19 October 2020, the Central Bank of Nigeria released an advisory on Money Laundering and the financing of terror (ML/TF) risks including asking banks to invest in data mining and AI software to monitor transactions and study suspicious transactions.
Uganda	Uganda implemented measures to facilitate consumer access to electronic transactions as a result of the pandemic, which were deployed alongside the credit relief measures.	- Mobile Network Operators (MNOs) and commercial banks were engaged to reduce fees on mobile money transactions and other digital payment charges in order to limit the use of cash and bank branch visits. - Increased daily transaction and wallet size limits for mobile money transactions.

Anti-money laundering (AML) and electronic-know your customer (eKYC)

Money laundering (ML) and terrorist financing (TF) are key concerns of regulators in an increasingly globalised world, and led to the need for AML and CFT regulations. Both ML and TF undermine financial sector stability, while at the same time enabling crime and corruption, which have direct implications for an economy and society. The introduction of technology can affect patterns of behaviour in ML and TF. On one hand, the proliferation of providers of financial products, along with the reduction of time and effort to move funds, can increase the ability to initiate ML and TF, but on the other hand technology has been effectively used to reduce the ability of criminal activity. Technology can also lead to the simplification of costly processes, acting as an enabler of FinTech and DFS activity. One such process is electronic Know Your Customer (eKYC) which refers to the digital verification of an identity.

To reduce the risk of ML and TF, regulators in charge of AML and CFT implement frameworks that relate to financial activity and transactions, requesting information from market providers to ensure a risk-based approach to financial activity is implemented and that there is appropriate due diligence. A key part of the overall due diligence process is to ensure that there is a KYC process that ensures that the market provider is confident of the client and their risk profile in terms of ML and TF.

A recent Financial Action Task Force (FATF) study has stressed that the COVID-19 pandemic has led to increased risks in relation to ML and TF (FATF, 2020b). An increase in COVID-19 related crimes was noted, with fraud, cybercrime, and expropriation of government or international financial assistance, creating new sources of proceeds for illicit actors. Simultaneously, the pandemic has negatively impacted the ability of regulators and the private sector to implement AML/CFT obligations, for example by reducing the ability to undertake onsite inspections. One of the key concerns of FATF is the ability of criminals to bypass Customer Due Diligence (CDD) measures and has recommended the use of technology to enhance AML checks and close gaps that can be exploited.

7 A further example of a consumer protection regulatory measure taken in Kenya is discussed in the case study.

AML and eKYC: Mandate/authority

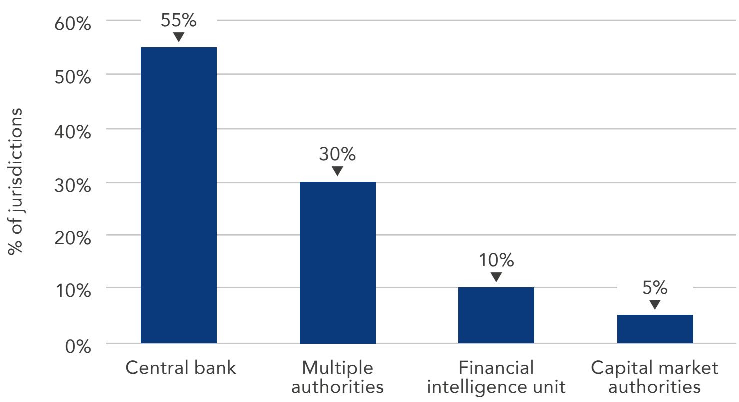
All surveyed jurisdictions in SSA have an AML/CFT framework in place that defines the illegal activity of ML/TF and provides regulators with the authority to supervise economic activity to ensure illegal activity does not take place. The FATF is a key body in global AML/CFT efforts. It seeks to set standards and promote effective implementation of legal, regulatory and operational measures for combating ML and TF, through a mutual evaluation process where countries' progress in implementing FATF recommendations is monitored. The AML/CFT legal framework and regulatory mandates are scrutinised during the fourth round of mutual evaluations by the FATF and affiliated FATF-style regional bodies (FSRBs) that is currently under way. If a jurisdiction has not partaken in the ongoing round, that jurisdiction should expect changes to the legal framework to comply with the mutual evaluation recommendations. Burundi is not a member of a FSRB, and that may have implications on the standardisation of AML/CFT processes in line with best practices.

As AML/CFT compliance covers a range of sectors, including non-financial sectors, it is often the case that the authority to regulate AML/CFT in financial services can be given by governments to a different type of authorities. However, we see a greater propensity in SSA for AML/CFT to be within the remit of the central banks as compared with APAC or MENA.

Guinea does not currently have an established Financial Intelligence Unit (FIU). An FIU seeks to collect and investigate suspicious activity identified by the private sector, and often is the key interlocutor for international requests for information. Their importance has been underscored by a range of initiatives, such as the Egmont Group[8], which is a body of 166 FIUs that seeks to enable knowledge exchange to combat money laundering. The fact that half of the FIUs of the surveyed SSA jurisdictions are not members might make it harder to cooperate and exhibit best practice in combating ML/TF.

There is a preference for central banks to serve as the main regulators for AML/CFT in the region, as seen in **Figure 5.12**. This may relate to the fact that in some jurisdictions the central bank is the sole regulator for the financial market as well as that SSA central banks often regulate the payments sector.

Figure 5.12: Main regulators for AML in financial services – SSA (N=20)



Note: N denotes the number of jurisdictions surveyed.

AML, CDD and eKYC

An important process of AML/CFT is customer due diligence. The process of CDD seeks to identify and verify the customer, undertake a risk assessment, identify the beneficial owner, and monitor suspicious transactions. A key component of due diligence is the KYC process, which describes the identity and verification process during

8 For more information on the Egmont group visit https://egmontgroup.org/en.

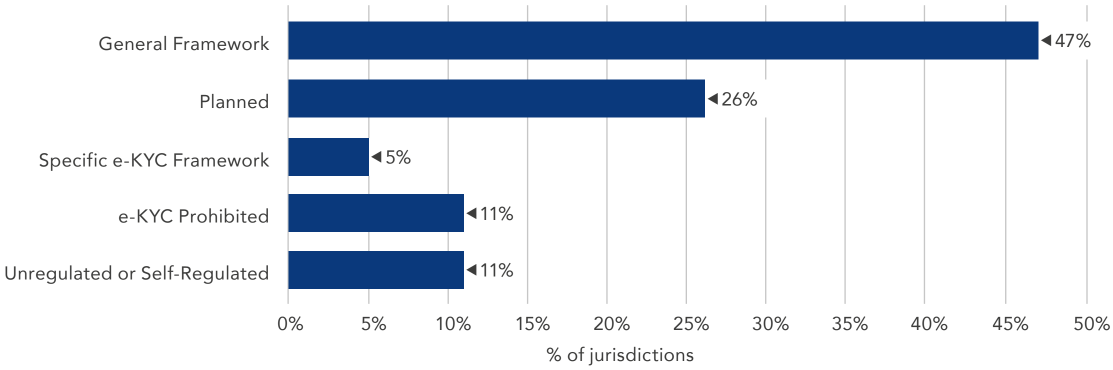
onboarding of a client. Ensuring that the process can take place digitally (eKYC) is a key driver of innovation in DFS, ensuring both a reduction in costs of onboarding and a more effective minimisation of risks in identity fraud.

Market participants consider that enabling eKYC is instrumental to developing DFS. Some FinTech firms consider the lack of clearly defined eKYC frameworks by jurisdictions as a key stumbling block to their growth and ability to scale (CGAP, 2019a). The shift to remote working during the pandemic has increased the need for clear eKYC guidelines. This desire for a clear eKYC process is shared by FinTech firms in SSA, as **Figure 7.6** indicates.

In a CCAF survey of 164 market participants in the SSA region, 53% indicated that more regulatory support for eKYC processes was something that they "urgently needed". This need was more pressing in jurisdictions where the lockdown measures were more stringent (CCAF, WEF and World Bank, 2020).

Benefits of eKYC include allowing FinTech and broader digital finance to scale, by facilitating market participants to eliminate costly and resource-intensive manual processes, thus onboarding clients at a lower cost. In SSA, 47% of jurisdictions allow some form of eKYC within their existing KYC framework. A further 11% of jurisdictions have an eKYC specific framework.

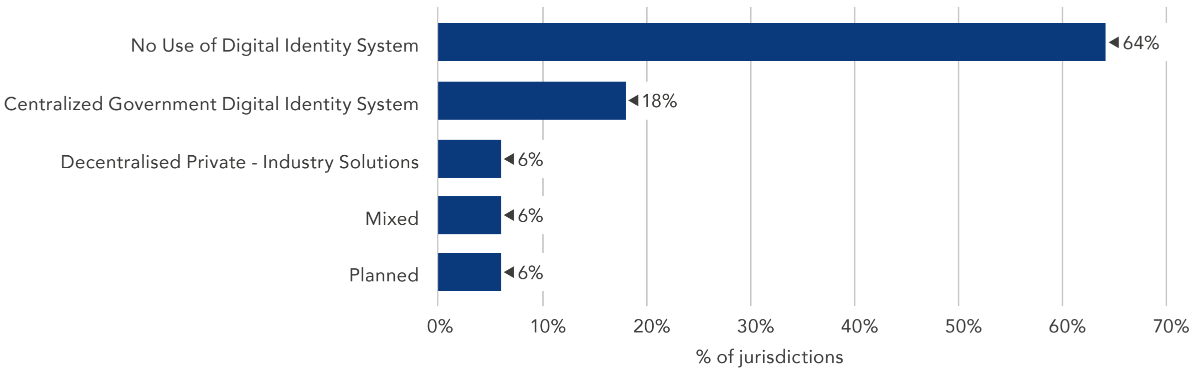
Figure 5.13: Types of regulatory framework in relation to e-KYC - SSA (N=19)



Note: N denotes the number of jurisdictions surveyed.

The use of electronic verification and identification often requires a collaboration between financial service providers and government entities to access private or public databases. In SSA such collaboration systems are as shown in **Figure 5.14**. For example, in Kenya, there are digital identity systems in place with access to governmental data. This allows financial service providers to access validated data to authenticate the identity of customers during the onboarding process. Trusted data sources allow firms to confidently provide appropriate services, such as higher balance limits if the client is not deemed to be high risk. The case studies considered in this study further highlight approaches to simplified customer due diligence in Kenya and eKYC in Nigeria.

Figure 5.14: Types of Digital Identity Systems used in eKYC - SSA (N=17)



Note: N denotes the number of jurisdictions surveyed.

6. Regulatory innovation initiatives in SSA

6. Regulatory innovation initiatives in SSA

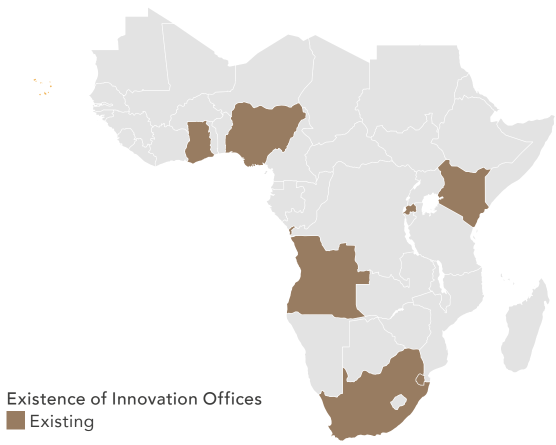
Regulators around the world have responded to the challenge of balancing the benefits and risks of technology-enabled financial innovation and the increasing digitalisation of the global economy by innovating themselves. These regulatory innovation initiatives include innovation offices, regulatory sandboxes, and RegTech/SupTech programmes. This chapter sets out the current state of regulatory innovation initiatives across SSA.

Innovation offices in SSA

An innovation office is a dedicated function within a regulator which engages with and provides regulatory clarification to innovative financial services providers. This can help reduce regulatory uncertainty by providing a channel for innovators to engage with regulators in order to better understand regulatory frameworks and their requirements.

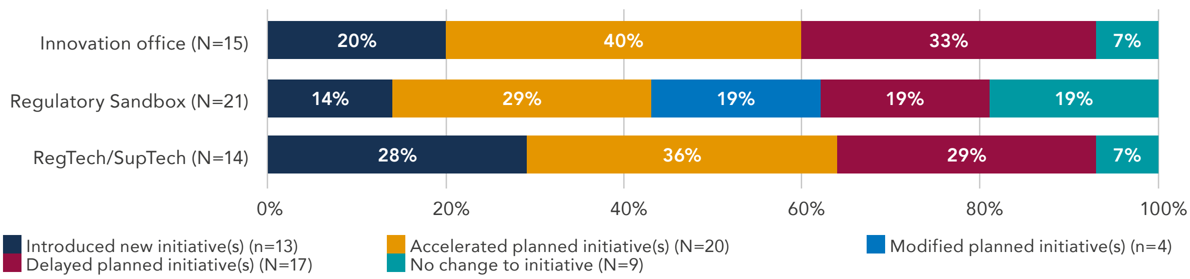
Figure 6.1 illustrates that there are currently nine jurisdictions with an innovation office in SSA. This represents a significant increase over the past two years. A study in 2019 identified no innovation offices in SSA at all (CCAF and UNSGSA, 2019).

Figure 6.1: Innovation Offices in SSA[9]



The increasing prevalence of innovation offices seems likely to continue, with 40% of respondents in SSA indicating that the COVID-19 pandemic has accelerated their planned innovation office initiatives (CCAF, WEF and World Bank, 2020), as can be seen in **Figure 6.2**. This is in addition to the 20% of surveyed regulatory authorities who reported introducing an innovation office during the pandemic. However, it should be noted that one third of respondents reported that COVID-19 resulted in a delay to their planned innovation office, indicating strong variation remains among jurisdictions.

Figure 6.2: The Impact of COVID-19 on regulatory initiatives



Note: N denotes number of regulators in SSA who responded to a survey.

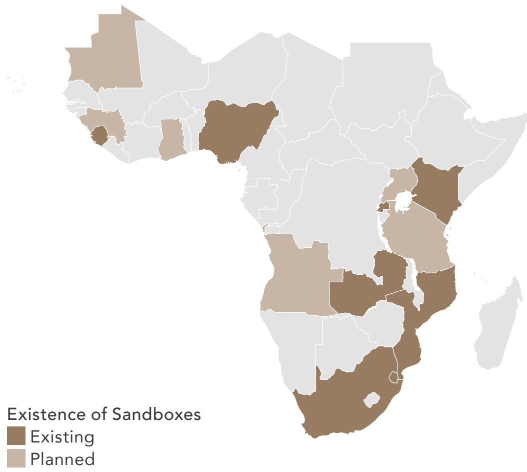
9 The jurisdictions with innovation offices in the SSA are: Angola, Cape Verde, Eswatini, Ghana, Kenya, Nigeria, Rwanda, Seychelles and South Africa

Regulatory sandboxes in SSA

Regulatory sandboxes are formal regulatory programmes that allow market participants to test new financial services or models with live customers, subject to certain safeguards and oversight. Regulatory sandboxes might take different forms, including digital or virtual models.

Figure 6.3 illustrates that there are ten jurisdictions in SSA with at least one operational regulatory sandbox. There are also a further six jurisdictions that are planning to introduce a regulatory sandbox. There are discussions for a cross-jurisdictional initiative from the Banque Centrale des Etats de l'Afrique de l'Ouest (BCEAO), the central bank of West African States that share the CFA franc.

Figure 6.3: Regulatory sandboxes in SSA[10]



As in the case of innovation offices, the prevalence of regulatory sandboxes has also increased considerably over the last two years. In 2019, just four regulatory sandboxes were identified as operational in SSA (CCAF and UNSGSA, 2019), which has since increased to ten.

The COVID-19 pandemic appears to have played a catalytic role in the establishment of regulatory sandboxes in SSA. As illustrated in **Figure 6.2**, which is a survey of regulators across SSA and not just the sampled jurisdictions, 14% of respondents introduced a regulatory sandbox during the pandemic, with 29% accelerating a regulatory sandbox initiative during this period. Only one in five respondents (19%) reported a delay to a regulatory sandbox initiative due to the COVID-19 pandemic.

RegTech and SupTech initiatives in SSA

The use of technology to aid market participants in complying with regulatory requirements, as well as the use of supportive technology by regulators, is increasing globally. The terms 'RegTech' and 'SupTech' are subject to several definitions by both financial regulators and the wider financial industry.[11] For the purposes of this study, these terms are used to refer to the use of technology *by regulators*. SupTech refers to the use of innovative technologies by regulators to tackle regulatory or supervisory challenges. It is a subset of RegTech, which includes any use of technology to match structured and unstructured data to information taxonomies or decision rules that are meaningful to both regulators and regulated entities, in order to automate compliance or oversight processes. The two terms are used interchangeably for this study given their varying usage by regulators, and the potential for commonly adopted definitions, standards, and protocols.

10 The jurisdictions with at least one regulatory sandbox are: Eswatini, Kenya, Mauritius, Mozambique, Nigeria, Rwanda, Seychelles Sierra Leone, South Africa and Zambia. The jurisdictions which plan to introduce a regulatory sandbox, based on publicly available data are: Angola, Ghana, Guinea, Mauritania, Tanzania and Uganda.

11 By way of example see: CCAF and UNSGSA FinTech Working Group (2019). Early Lessons on Regulatory Innovations to Enable Inclusive FinTech: Innovation Offices, Regulatory Sandboxes, and RegTech. Office of the UNSGSA and CCAF: New York, NY and Cambridge, UK; Financial Stability Board (2020), 'The Use of Supervisory and Regulatory Technology by Authorities and Regulated Institutions.'; Di Castri et al (2018) 'Financial Authorities in the Era of Data Abundance: Regtech for Regulators and Suptech Solutions.'

Figure 6.4 illustrates that there are eleven jurisdictions in the SSA region with at least one RegTech or SupTech initiative. A further two jurisdictions have indicators of a potential RegTech/SupTech initiative(s) forthcoming. RegTech and SupTech initiatives have also become increasingly prevalent in the last two years, with UNSGSA and CCAF detailing just three RegTech initiatives in SSA in 2019.

Figure 6.4: RegTech / SupTech initiatives in SSA[12]

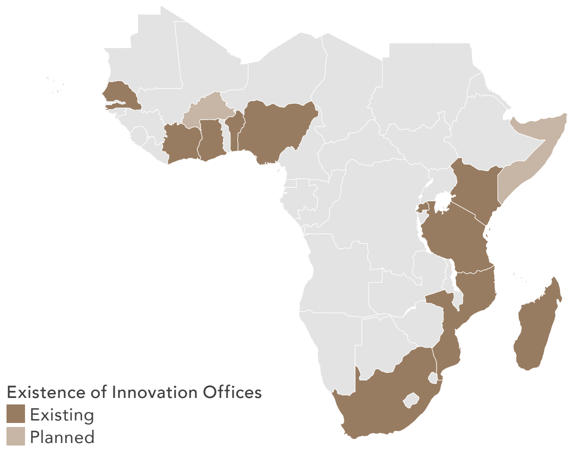


Figure 6.2 further illustrates that the COVID-19 pandemic is associated with regulators actively looking to introduce RegTech/SupTech solutions to face regulatory challenges. Regulators in SSA jurisdictions were slightly more likely than the global average to have accelerated a RegTech/ SupTech initiative (29% versus a global average of 25%) or introduced a new RegTech/ SupTech initiative (36% versus a global average of 33%).

12 The jurisdictions with at least one RegTech/SupTech initiative, based on publicly available information are: Benin, Cote d'Ivoire, Ghana, Kenya, Madagascar, Mozambique, Nigeria, Rwanda, Senegal, South Africa and Tanzania.
The jurisdictions with at least one planned RegTech/SupTech initiative, based on publicly available information are: Burkina Faso and Somalia.

7. Identifying gaps, and understanding challenges in SSA

7. Identifying gaps, and understanding challenges in SSA

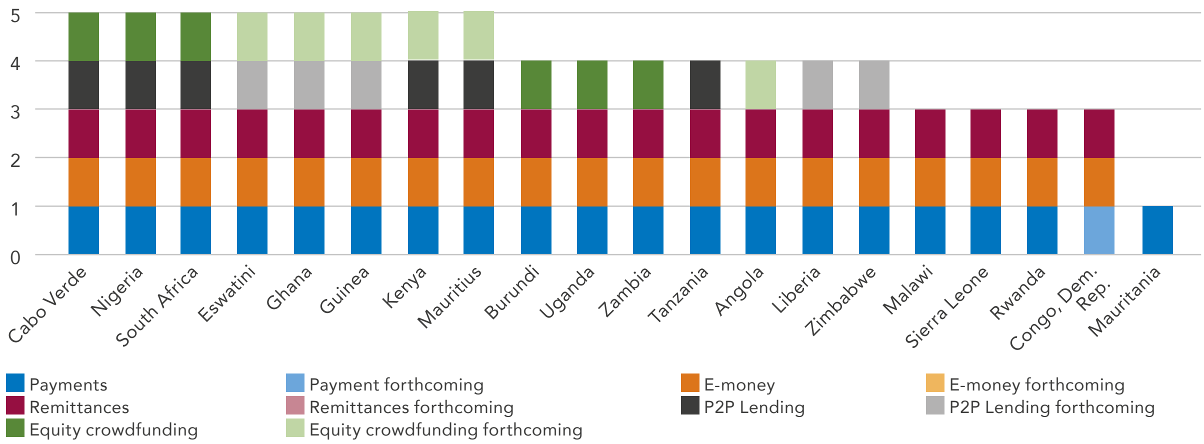
As outlined in **Chapters 4, 5, and 6**, regulatory responses to FinTech in SSA are diverse. The following chapter seeks to explore this variation in more detail and suggests some of the impacts that divergent approaches have on the FinTech market, as well as some of the factors that could explain the uneven regulatory landscape in SSA.

The existence of regulatory frameworks and regulatory innovation initiatives is uneven

Provision of frameworks for FinTech verticals

Figure 7.1 presents a jurisdiction-by-jurisdiction view of the prevalence of regulatory frameworks across the FinTech verticals considered in this study. It is important to note that this Figure does not seek to 'rank' or 'score' different jurisdictions in their approach to regulating FinTech, but instead to show the range of approaches to regulating FinTech within the region.

Figure 7.1: Regulatory Frameworks in sample SSA jurisdictions



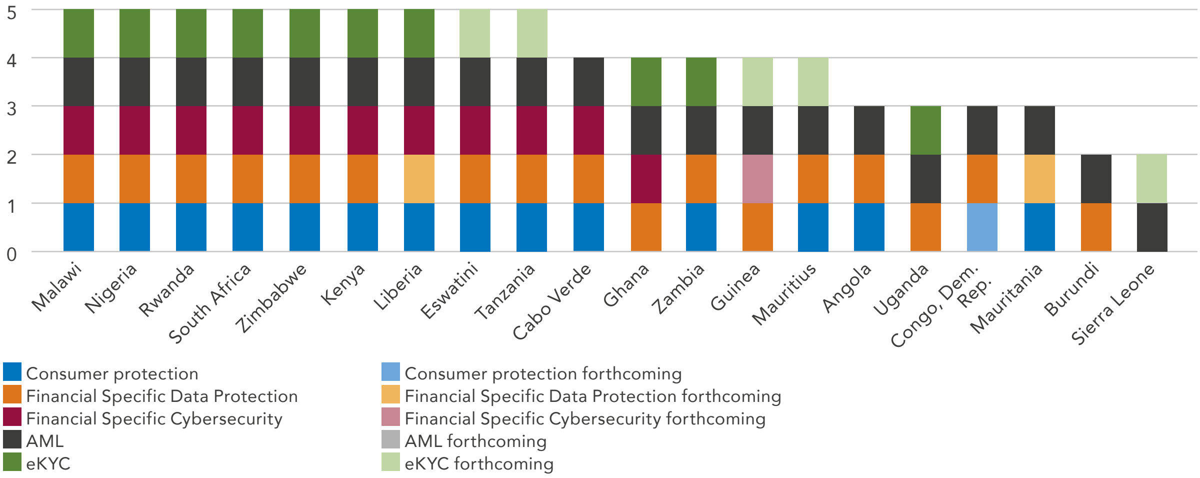
Note: We identify any regulatory framework in place as a positive answer

As we see in **Figure 7.1**, there is almost complete coverage of frameworks on digital payments, with all but the Democratic Republic of Congo, which is planning to introduce one, having a general or specific framework over digital payments. This is replicated in e-Money and international remittances, with all but one jurisdiction having a general or specific framework over the FinTech vertical[13]. In SSA, the dearth of regulatory frameworks in P2P lending is evident, with just six jurisdictions having a framework to regulate such activity, although five more are planning to introduce one. There are six jurisdictions who have a framework for ECF and an additional six are planning a framework. In total there are nine jurisdictions planning to introduce a further 12 regulatory frameworks for the researched fintech verticals.

Similarly, there is a wide diversity of approaches to cross-cutting frameworks in SSA, as shown in **Figure 7.2**. As with the analysis of regulatory frameworks above, this is not an attempt to rank jurisdictions but to showcase the wide range of different approaches within SSA.

13 We were unable to ascertain if Mauritania has frameworks in place, other than for digital payments.

Figure 7.2: Cross-cutting regulatory frameworks in sample SSA jurisdictions



Note: We identify if there is a framework or directive as a positive answer

The cross-sectoral frameworks in SSA vary. All SSA jurisdictions have an AML framework, while 17 have financial specific data protection. However, only 10 jurisdictions have a framework for eKYC and five plan to introduce one. Of the jurisdictions we reviewed, only Kenya, Malawi, Nigeria, Rwanda, South Africa and Zimbabwe have frameworks in place for all the investigated cross-sectoral issues. Overall, there are nine planned frameworks in eight jurisdictions.

The absence of regulatory frameworks can lead to FinTech market participants to operate within uncertain conditions, while important issues of financial conduct and consumer protection might be overlooked. Ensuring there is an effective framework can reduce the uncertainty over regulation and provide needed oversight.

It is positive that in most jurisdictions sampled, as shown in **Figure 7.2**, there are frameworks in place for AML, financial consumer protection and data protection. This is likely to aid development of FinTech in SSA, as these frameworks can affect all DFS. However, there is a greater effort needed to ensure that cybersecurity and eKYC frameworks are put in place to enable a broader dissemination of financial sector opportunities to firms and their customers.

The use, transmission and processing of personal and financial data is central to the delivery of DFS. Almost all jurisdictions in our sample have data protection frameworks in place. Regulators are also modifying existing frameworks to support new data-driven business models. For example, in Ghana, the Financial Inclusion Forum Africa has drafted a data protection and privacy policy to serve as an internal guide on how digital financial service providers should collect, store and process individual data (Financial Inclusion Forum Africa, 2021). According to the Chairperson of the Financial Inclusion Forum Africa, data privacy and protection is "critical to financial inclusion" (Kalemera & Wanyama, 2021). However, there is more work needed to develop frameworks that specifically relate to financial services.

Cybersecurity and data protection are intrinsically linked with financial consumer protection. As evidenced in **Figure 5.5**, regulators need to ensure they can respond to the consumer protection aspects of digital finance, with respect to data and cyber risks, especially as the risks increased due to the COVID-19 pandemic (FATF, 2020d). Effective financial consumer protection necessitates a clear mandate, yet often it is unclear who has the mandate over innovative financial products and services. This is most apparent in the P2P lending and ECF FinTech verticals in SSA.

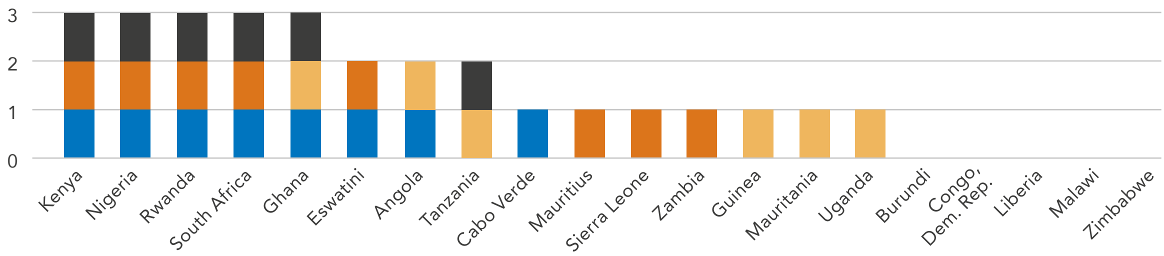
It is important to note that cross-sectoral frameworks are often not under the remit of one stakeholder, and yet can be catalytic in efforts to promote regulatory objectives.

The creation of an enabling regulatory environment also requires clear and effective cross-sectoral regulation, often requiring cooperation across government authorities in the broader financial space.

As described earlier in this study, a 'test-and-learn' approach towards FinTech as implemented in some SSA jurisdictions was effective around the adoption of mobile money. The creation of regulatory sandboxes might accelerate the ability of regulators to respond to financial innovation, as well as ensure there is greater proportionality in any future regulation needed to regulate a particular financial service or product.

There is a growth in regulatory innovation initiatives across our sample in SSA. **Figure 7.3** provides a country-by-country view of these, based on a desk-based review of publicly available information. As described in **Chapter 6**, there has been a significant increase in the prevalence of innovation offices, sandboxes, and RegTech/SupTech initiatives in SSA over the past two years. It must be noted that all the SSA regulatory innovation initiatives were mapped in Chapter 6, while here the initiatives presented are in the sampled jurisdictions only.

Figure 7.3: Regulatory innovation initiatives in sampled jurisdictions



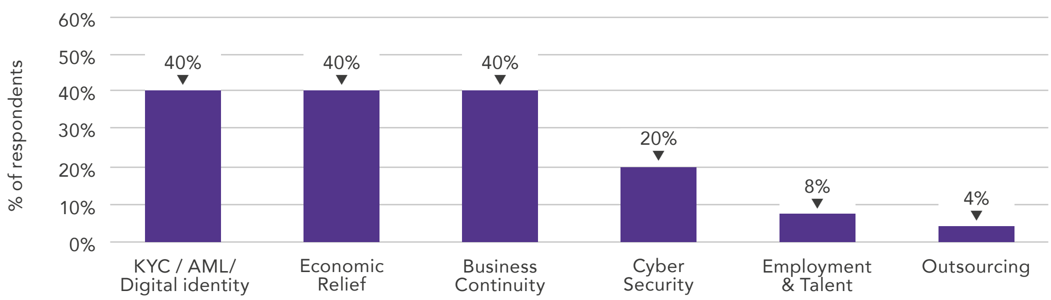
Note: Information accurate at the time of research completion.

Digital identity and eKYC

The need to verify identity, often focusing on key documents that might not be available to financially excluded persons, can lead to obstacles in the KYC and CDD processes. Indeed, according to a World Bank Global Findex report, SSA has the highest proportion of financially excluded individuals (18%) who cite a lack of official identity as the reason they do not have an account at a formal financial institution (AFI, 2019).

The ability of DFS to scale is linked to onboarding clients electronically and ensuring adequate AML provisions have been followed. Here, the role of eKYC as an enabler across many FinTech verticals is highlighted. As described in **Figure 5.13**, many SSA regulators in the sample allow for eKYC, either through their existing KYC framework (47%), or through an eKYC specific framework (5%), while only 11% of jurisdictions specifically prohibit eKYC. Recognising the importance of remote onboarding during the COVID-19 pandemic, 40% of regulators in SSA have introduced specific measures relating to KYC/AML/digital identity during the pandemic, as **Figure 7.4** shows.

Figure 7.4: Instances of regulatory measures taken in the SSA region (N=25)



Note: N denotes number of regulators in SSA who responded to the survey. Source: (CCAF and World Bank, 2020).

The importance of AML and eKYC as part of remote onboarding processes has been echoed by both regulators and market participants (CCAF, WEF and World Bank, 2020). The increase in activity in providing an eKYC framework is welcomed by market participants and also by FATF, which includes the introduction of technology in the KYC process in its recommendations (FATF, 2020b). While over half of respondents have sought to address the need for eKYC, there is also more that could be done to facilitate this. As Figure 7.6 shows, eKYC and onboarding facilitation remains the most common request to regulators by market participants, in light of COVID-19.

eKYC is intrinsically linked with identity verification and the shift to digital identity systems. Such digital infrastructure takes time to develop, and often there are several models of building digital identity systems, taking the form of government initiatives, public-private partnerships, or private initiatives built on regulator specifications. There are positive examples, such as in Nigeria, where there is a Bank Verification Number (BVN) system in place (FATF, 2020c). This consists of a biometric-enabled ID database and eKYC infrastructure managed by the Nigerian Inter-Bank Settlement System (NIBSS). This has lowered onboarding costs and allowed bank and non-bank financial service providers to utilise the system. South Africa established the South African Banking Risk Information Centre (SABRIC). SABRIC collaborated with the Department of Home Affairs to ensure that verification of customers' identity can take place against the biometric database of the government department (FATF, 2020c). The Bank of Uganda, together with the Uganda Bankers Association, National Identification and Registration Authority (NIRA) and Laboremus Uganda launched a shared E-Gateway between NIRA, Supervised Financial Institutions (SFIs) and Bank of Uganda to improve verification and authentication of SFIs current and prospective customer information against records maintained by NIRA (Bank of Uganda, 2020). Despite these positive examples, in SSA there are a relatively fewer eKYC systems that are based on a central government or public-private partnership digital identity systems than in MENA or APAC. This can inhibit the development of DFS as such systems enable faster and more effective eKYC and onboarding of customers.

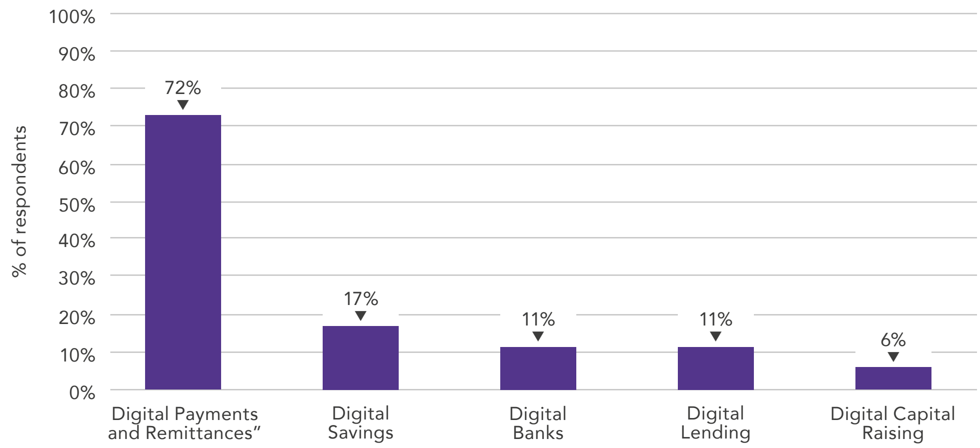
Regulators introduced measures in FinTech verticals and cyber risk during the pandemic

Cyber risk is a growing global challenge. Many jurisdictions across SSA have a national cybersecurity framework already in place, and sectorial regulations, guidance and supervisory practices for the financial sector have been issued. Jurisdictions in SSA are aiming to strengthen the cybersecurity of critical sectors and infrastructure, including financial firms, as they are not only part of a critical sector but also are more exposed to cyber risk than other sectors given they are IT-intensive and highly dependent on information as a key input.

COVID-19 has accelerated efforts to strengthen cybersecurity efforts, with 20% of authorities in our sample undertaking specific cybersecurity actions in light of COVID-19, as indicated in Figure 7.4. These actions, through measures and guidance notes, are intended to improve cyber resilience to help combat cyberattacks and educate the public in SSA jurisdictions.

There were also efforts targeting specific FinTech verticals. As Figure 7.5 shows, 72% of regulators in SSA have taken measures during the COVID-19 pandemic that impact the digital payments and remittances sector, far higher than any other sector. This compares to 61% of regulators globally (CCAF, WEF and World Bank, 2020), demonstrating the prevalence, and importance, of digital payments and remittances in SSA. Some of the measures had to do with waiving fees or raising transaction ceilings during peak lockdown stringency periods.

Figure 7.5: FinTech sector-specific measures taken by regulators in the SSA region in light of COVID-19 (N=18)



Note: N denotes number of regulators in SSA who responded to the survey. Source: (CCAF and World Bank, 2020).

Frameworks and the FinTech market

The relationship between market activity and the provision of a regulatory framework is likely to be complex and non-linear, but there are insights to be gained from juxtaposing regulatory frameworks with market participation in specific FinTech verticals. This section explores the interaction between regulatory frameworks and FinTech market activity.

Although there are many factors that affect the development of financial markets, there is some evidence of links between regulatory frameworks and market development, especially in digital payments and e-Money. For instance, in the case of mobile money, there is a correlation between the GSMA regulatory index (where a higher score identifies the existence of frameworks and broader institutional infrastructure) and mobile money account ownership. This is positive and statistically significant, as a 10-percentage point increase in the GSMA regulatory index is correlated with a 7-percentage point increase in ownership of mobile money accounts (Klapper, et al., 2021). Although causation might also imply that frameworks are in place because of an active FinTech market, there are benefits in ensuring there is regulatory certainty to promote market development.

In addition to the above, while the existence of regulatory frameworks might be due to the prior emergence of the market, the existence of the framework can reduce regulatory uncertainty for providers and customers, supporting the growth of payments. The COVID-19 pandemic acted as a driver for growth, with Kenya indicating above average growth in the value of mobile money transactions for 2019-2020 of 20%, far greater than the 9% growth in the IMF Financial Access Survey recorded for the period 2018-2019 (IMF, 2020).

The existence of regulatory frameworks does not necessarily lead to an increase in payments *per se*. Regulatory frameworks must be effective to enable the development of FinTech markets and services. FinTech firms and entrepreneurs respond to a range of factors, including the speed of process and demand for the product or service. An example of an enabling regulatory framework in the SSA can be seen in examples relating to agents in payments and e-Money providers. Ghana's revision of agent banking and e-Money guidelines, for instance, permitted mobile network operators to offer mobile money accounts. Ghanaian financial service providers were able to invest in agent recruitment, customer education and expand coverage of mobile money accounts. The share of adults with mobile money accounts tripled between 2014 and 2017 in Ghana (Klapper, et al., 2021). Another example of an enabling framework can be seen in Cote d'Ivoire. Here a similar policy allowing non-banks to offer mobile money accounts, coupled with enabling factors such as the independent management of agent networks, price transparency and customer recourse mechanisms, allowed the private sector to expand its agent network from fewer than 20,000 agents in 2014 to nearly 100,000 by 2018 (Klapper, et al., 2021).

Frameworks can also help competition and market activity, for example by allowing interoperability, such as between different payments or e-Money providers. The absence of such interoperability may give rise to the concentration of market share to a few providers and create barriers for new entrants into the market. For example, in Tanzania, in the first three years of introducing mobile money interoperability, requiring payments services to provide interoperable services with other mobile payments services, providers transactions grew by 16% (World Bank, 2020).

Frequency of regulatory reforms can also have a positive impact on FinTech development. For example, the GSMA finds that economies which have undergone frequent regulatory reforms achieve higher regulatory index scores and are more flexible at addressing regulatory challenges than economies whose first iterations of regulations are still in place. Rwanda, for example, which scores 89 on the GSMA index, has been swift in addressing mobile money, along with issuing at least four regulatory instruments for payment service providers (PSPs) in the last decade (Klapper, et al., 2021).

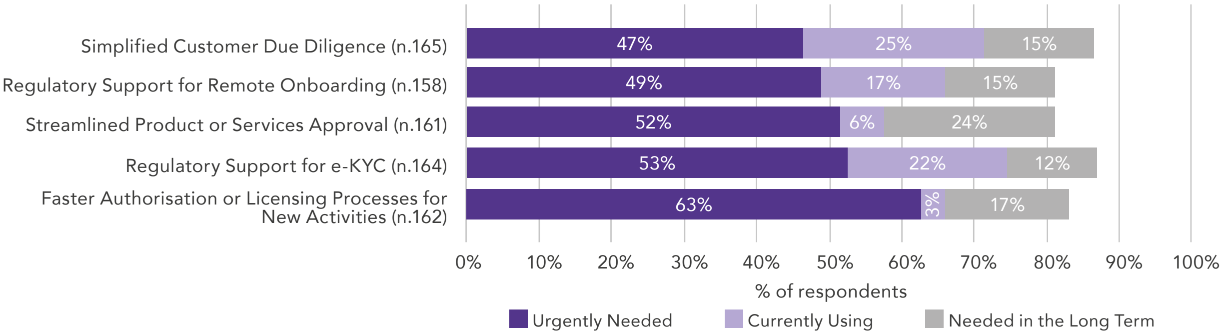
Although market activity can take place without a regulatory framework in place, there is some evidence that not having a regulatory framework in place can lead to a relative lack of market activity in DFS. This can be seen in the SSA in terms of ECF. Only six jurisdictions in SSA have regulatory frameworks for ECF activities. This may go some way to explaining the relative inactivity of the ECF market in SSA, compared to most other regions around the world, as described in Chapter 4.[14]

In terms of P2P lending, we have some evidence of markets developing without a framework being in place, but through regulatory direction. The example of P2P lending in Ghana may illustrate this. Market activity in Ghana is significantly higher (over $500m) than any other country in SSA (CCAF, 2021b). While a bespoke regulatory framework for P2P lending is currently under development in Ghana, the Bank of Ghana has been explicit in signalling to the market its interest in P2P lending, for example by "giving preference" to "supporting crowdfunding products and services" in its regulatory sandbox pilot, and by explicitly voicing its desire to "promote innovative digital crowdfunding solutions" (Bank of Ghana, 2021).

Regulatory clarity through the creation of frameworks is likely to be welcomed by market participants themselves. Figure 7.6, based on a CCAF survey of 164 market participants in the SSA region, indicates that they see regulatory clarity as the most important need. The market participants identified support for eKYC, due diligence and remote onboarding amongst the five most important regulatory responses to the pandemic, and that regulatory responses to these issues were "urgently needed" (CCAF, WEF and World Bank, 2020). Having a regulatory framework in place is also likely to be helpful in providing faster and more streamlined product or service approval, providing clarity to regulators themselves as to the regulatory treatment and requirements for a particular product and service, and potentially enabling them to make quicker licensing and product approval decisions.

14 In 2020, total volumes of ECF in SSA was just c. $1,000,000 USD, compared to, for example, over $300,000,000 USD in APAC. Source: (CCAF, 2021b).

Figure 7.6: Market responses on regulatory responses and innovation initiatives SSA



Note: This is based on a survey of market participants and hence the N is number of FinTech firms who thought the answer was significant. Note that "N/A" and "Unsure" responses have been omitted from this chart. Source: (CCAF, WEF and World Bank, 2020).

There are a range of factors that might create the right enabling environment for the development and expansion of innovative financial services, with some evidence that regulatory frameworks can support the development of FinTech markets in SSA. However, the existence of a regulatory framework that covers a FinTech vertical is just one of the pre-conditions that might be required to allow for market growth and effective oversight. The need to tackle and provide clarity for cross-sectoral issues such as data protection, cybersecurity and eKYC have become increasingly important for regulators but also for market participants during the COVID-19 pandemic.

Factors that might impact regulatory response to FinTech

The identified variation in frameworks in SSA is also impacted by the factors faced by regulators in creating enabling frameworks for FinTech. Regulators in SSA have identified a range of internal challenges to the regulation of FinTech, compared to more traditional financial services activities. **Table 7.1**, which is based on regulators' own assessments of the impediments to effective supervision of FinTech in 2019, suggests limited technical expertise within the regulator(s) (75%), followed by a lack of clarity and/or a limited mandate over the activity (65%), to be the most common impediments to the effective supervision of FinTech in SSA. It is notable that the SSA region has a higher number of regulators who consider the jurisdiction over the activity is unclear (65%) compared to the global average (55%) (CCAF and World Bank, 2019). A lack of resources can also have a profound impact on the ability of jurisdictions to enforce and implement regulations.

Table 7.1: Regulators' perception of impediments to effective supervision (N=24)

IMPEDIMENTS TO EFFECTIVE SUPERVISION	SSA
Limited technical expertise within the regulator(s)	75%
Need to co-ordinate the activities of multiple regulators	30%
Limited funding / resources for the regulator(s)	50%
Small size of firms/industry; can't justify intense supervision	25%
Regulators' jurisdiction over this activity is unclear or limited	65%
Lack of usable / reliable data on firm activities	20%
Other, please specify	25%

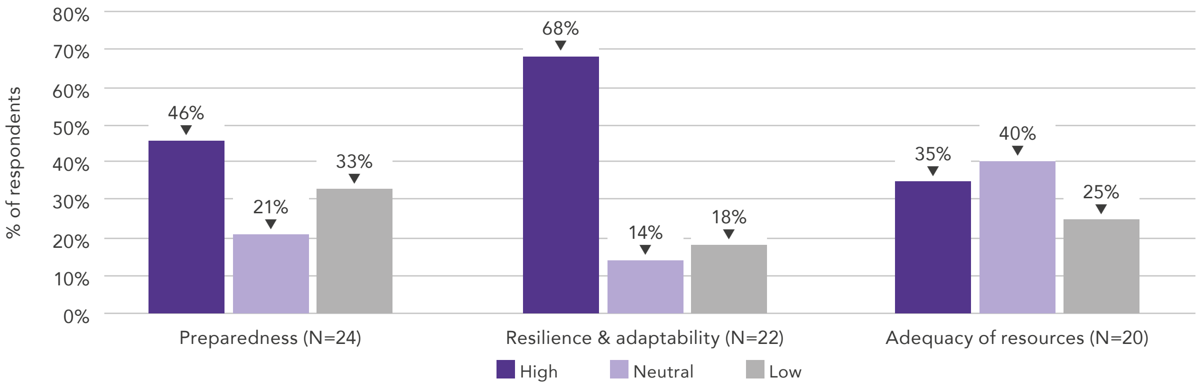
Note: N denotes number of regulators in SSA who responded to the survey. Source: (CCAF and World Bank, 2020).

Limited technical expertise, as stated by the regulators, is likely to hinder the development of regulatory frameworks and enabling regulations. The importance of cybersecurity and data protection has increased demands for technical expertise within SSA regulators.

The impact of COVID-19 has increased these internal challenges for many authorities. As **Figure 7.7** shows, only 35% of SSA regulators consider they have high adequacy of resources to be able to respond to the challenges of the COVID-19 pandemic. This contrasts strikingly with the assessment of regulators globally who consider themselves to have a high adequacy of resources (59% globally) (CCAF, WEF and World Bank, 2020). A relative lack of resources, as reported by SSA regulators, may create delays in developing frameworks for the regulation of FinTech, particularly during the COVID-19 pandemic, as resources are likely to have been redeployed to deal with the immediate risks created by the pandemic, rather than developing longer-term regulatory frameworks.

It is also noteworthy that regulators in SSA stated they are less likely than those in our global sample to consider that they have high levels of preparedness (46% in SSA versus 54% globally) and high levels of resilience and adaptability (68% in SSA versus 80% globally) (CCAF, WEF and World Bank, 2020). This is also likely to be a contributing factor delaying the introduction of specific regulatory frameworks in FinTech.

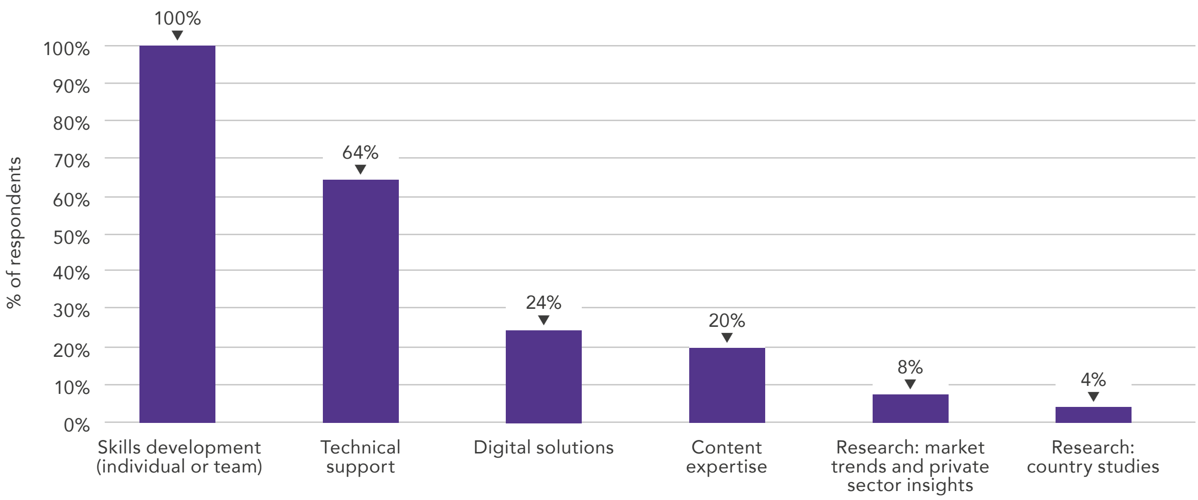
Figure 7.7: Perceived levels of preparedness, resilience and adaptability and adequacy of resources in the wake of COVID 19 – SSA (N=25)



Note: N denotes number of regulators in SSA who responded to the survey. Source: (CCAF and World Bank, 2020).

As **Figure 7.8** shows, every regulator that responded to the COVID-19 response survey in SSA considered skills development to be beneficial in light of COVID-19. This contrasts to 80% globally. Developing regulatory frameworks for FinTech is likely to require highly specialised skills in terms of understanding emerging technologies and defining appropriate regulatory responses. Lacking these skills ‘in house’ is likely to be a barrier for some regulators to creating enabling frameworks for FinTech. These are not just SSA concerns, but the desire for greater technical support is in line with global responses by regulators.

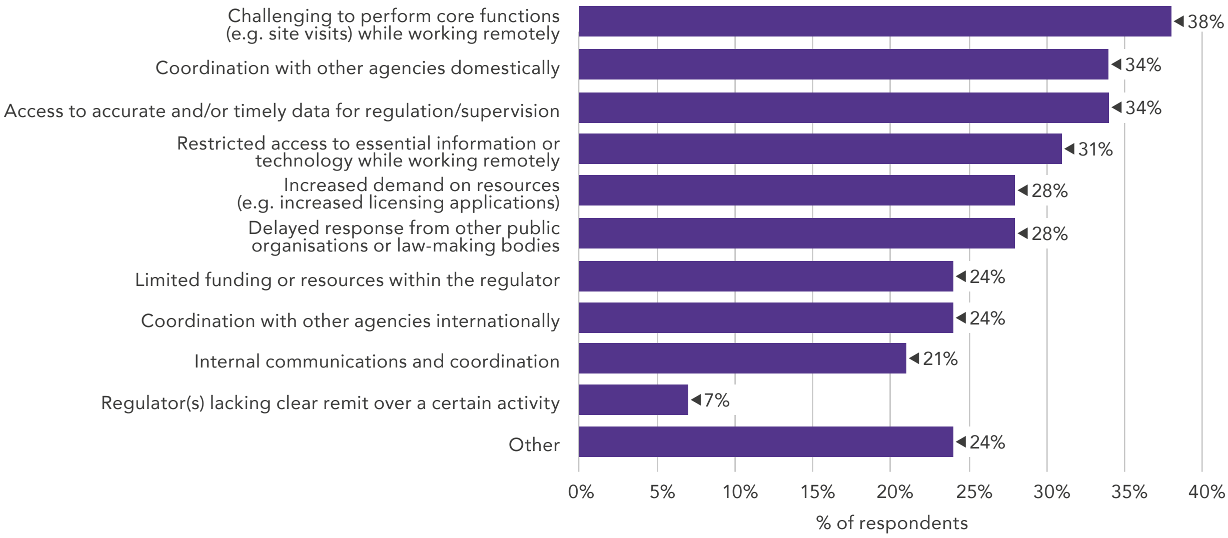
Figure 7.8: Types of assistance regulators would most benefit from in order to support their work on FinTech in light of COVID-19 (N=25)



Note: N denotes number of regulators in SSA who responded to the survey. Source: (CCAF and World Bank, 2020).

Regulators across the world have faced considerable internal challenges in developing responses to FinTech in light of COVID-19. These include challenges in performing core functions while working remotely and coordination with other regulators domestically. The challenges identified in SSA are identified in **Figure 7.9**. It is likely that the numerous challenges caused by the pandemic have impacted many regulators' responses to FinTech, directing time and effort to core supervisory functions rather than developing frameworks for FinTech.

Figure 7.9: Internal challenges to developing regulatory responses to FinTech in light of COVID-19 (N=29)



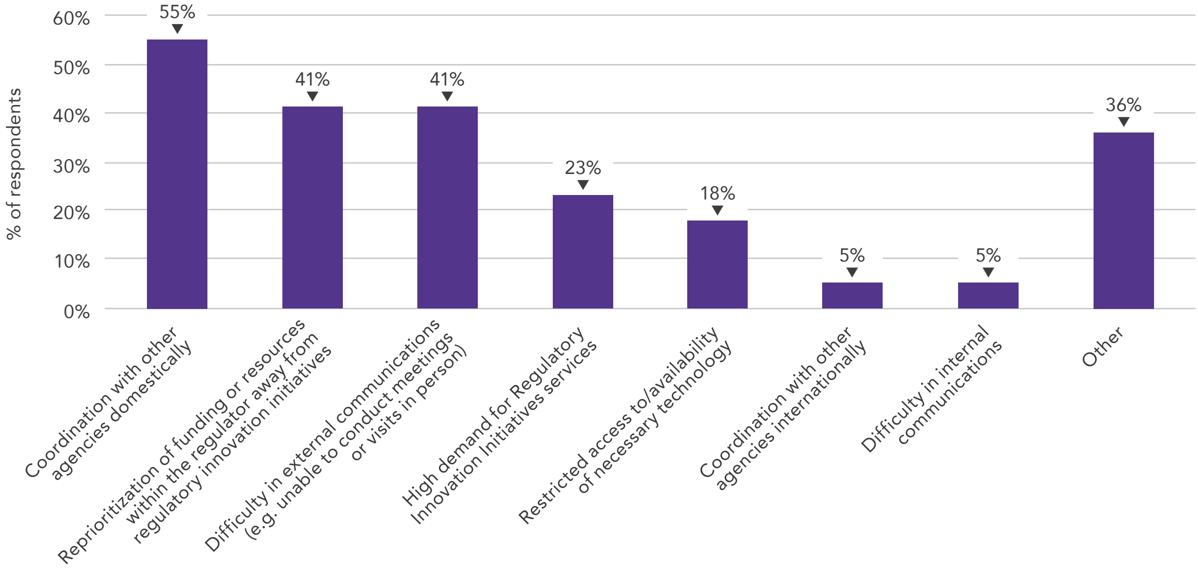
Note: N denotes number of regulators in SSA who responded to the survey. Source: (CCAF and World Bank, 2020)

Regulatory innovation initiatives

Regulatory innovation initiatives such as regulatory sandboxes may be one way for regulators to increase their technical expertise through observing and supporting technologies in the marketplace and gaining a greater understanding of the risks and benefits of such technologies, which may be useful in informing regulatory frameworks and policies.

Despite the increasing prevalence of regulatory innovation initiatives in SSA, it is clear that regulatory authorities experience challenges in the design, development and/or operation of these initiatives. While the COVID-19 pandemic has catalysed regulatory innovation initiatives, it has also posed significant challenges for regulatory authorities in SSA. **Figure 7.10** illustrates the most significant challenges faced by regulatory authorities in SSA in light of COVID-19. It is notable that 55% of SSA regulators consider domestic coordination a challenge for regulatory innovation. This is higher than regulators globally, of whom 39% saw the issue of domestic coordination as a challenge.

Figure 7.10: Covid-19 and the Challenges for regulatory innovation (N=22)



Note: N denotes number of regulators in SSA who responded to the survey. Source: (CCAF and World Bank, 2020).

Coordination with other domestic agencies is cited by over half the respondents (55%) as a challenge. This may be reflective of a more sectoral approach to the regulation of FinTech, which in turn may require significant regulatory coordination when developing initiatives such as an innovation office or regulatory sandbox. The corresponding figure for the global sample of respondents is 43%, indicating a more significant challenge in SSA.

A reprioritisation of funding or resources within the regulator in light of COVID-19 has also posed a challenge for regulatory innovation initiatives in SSA according to 41% of surveyed regulators. This is perhaps unsurprising given the finite resources that a regulatory authority in SSA may be able to dedicate to regulatory innovation initiatives, and the necessity of devoting these resources elsewhere during a period of crisis. Indeed, this was a less cited challenge by other global regulatory authorities, with a corresponding figure of 34%.

High demand for regulatory innovation initiatives is cited by approximately one in four surveyed regulators (23%) in SSA, which is broadly aligned with the global average of 24%. Regulatory authorities in SSA were much less likely to cite challenges such as required speed of delivery (none in SSA versus a global average of 31%) or a delayed response from other public organisations or law-making bodies (none in SSA versus the global average of 7%).

High demand for regulatory innovation initiatives is also reflected by FinTech market participants. As **Figure 7.6** shows, 63% of market participants surveyed in SSA suggested they urgently need faster authorisation and/or licensing processes for new activities, and over half said they urgently need streamlined product/service approval. An innovation office and/or regulatory sandbox could provide ways for regulators to streamline processes and enable firms to get to market more quickly, given the urgent need market participants identified.

8. Concluding remarks and future research

8. Concluding remarks and future research

This study has discussed the regulatory approach to FinTech in SSA, comprising of sector-specific FinTech regulation, cross-cutting regulatory frameworks, and regulatory innovation initiatives. It is observed that, despite an increase in the importance of FinTech in the region – especially due to the COVID-19 pandemic – there are still many jurisdictions within the region that lack regulatory frameworks.

In SSA there are proportionally less regulatory frameworks for P2P lending, ECF and eKYC than in the MENA and APAC regions. There is also a lower proportion of jurisdictions where frameworks are in place for financial services sector specific cybersecurity and open banking than APAC.

Regulators from the region are however taking a number of steps to advance the regulation of FinTech. There are nine SSA jurisdictions planning to introduce a further twelve regulatory frameworks for the FinTech verticals included in this landscaping study. In addition, there are nine cross-sector frameworks planned in eight SSA jurisdictions. This progress is matched by the increase of regulatory innovation offices and regulatory sandboxes. The region has nine innovation offices and nine sandboxes in place with a further six sandboxes planned, up from no innovation offices and just four regulatory sandboxes in 2019. The advancement of FinTech regulation in the region is taking place within a scarce resource environment, further exacerbated by COVID-19, where the required information to aid regulators in balancing competing objectives is often not available.

This study provides insights into the prevalence of FinTech-specific regulatory frameworks and regulatory initiatives across the region. It stops short of making a determination of the effectiveness of these frameworks or how regulators should sequence the introduction of new FinTech regulatory approaches. This remains an important information gap for regulators seeking to meet competing demands with limited resources. The insights on cross-sector frameworks provide early insight into non-FinTech specific regulatory approaches that enable FinTech. Further research is needed to identify how cross-sectoral regulations are affecting FinTech development and how they could impede stated regulatory objectives. This information is particularly relevant where cross-sectoral frameworks are not within the mandate of financial regulators.

Digital infrastructure can advance or inhibit the effectiveness of regulatory measures related to digital identify, eKYC and open banking. Further insights on the relationship between regulatory frameworks, digital infrastructure and FinTech market development can provide regulators with additional avenues for meeting regulatory objectives within constrained resource environments. Digital infrastructure is a key catalyst to the ability of DFS to be transformative and more research is needed on the interplay between digital infrastructure and the efforts to create an enabling regulatory framework.

9. The regulatory approach to FinTech in Kenya

9. The regulatory approach to FinTech in Kenya

Kenya stands outs as one of the major FinTech centres in SSA (Didenko, 2017). Many jurisdictions in the region have indicated that in developing their regulatory approach to FinTech, they regularly benchmark against Kenya (Mas & Ng'weno, 2010). As such, the regulatory approach to FinTech in Kenya may be of interest to other jurisdictions in SSA.[15]

The regulatory approach to FinTech in Kenya can be traced to its regulatory treatment of mobile payments and mobile money. At the launch of M-Pesa in 2007, the Central Bank of Kenya (CBK), as the main regulator of the financial sector (with a mandate over the payments sector), together with the telecommunications regulator the Communications Authority, adopted a test-and-learn approach, as evidenced by the issuance of a 'letter of no objection' to the mobile network operator Safaricom Ltd to develop the M-Pesa mobile money service (Mas & Ng'weno, 2010). The CBK has previously described its approach to the regulation of mobile money as "consultative" and "proportionate" (AFI, 2012). The CBK also revealed a desire to ensure that regulatory requirements imposed on firms are proportionate to the risks posed by their innovations (AFI, 2012). It is suggested that this approach contributed to the successful deployment and growth of mobile payments/ mobile money (Mas & Ng'weno, 2010). The emergence of Kenya as one of the world leaders in mobile money (Didenko, 2017) points to the value of this approach.

The test-and-learn approach paved the way for the enactment of a dedicated payments framework comprising the National Payments Systems Act (2011) and the National Payments Systems Regulations (2014) to provide a formal framework for the regulation of payments systems and payment service providers (Republic of Kenya, 2011, Central Bank of Kenya, 2014a). This approach is also evidenced through the Capital Markets Authority's (CMA) and the Insurance Regulatory Authority's (IRA) recent introduction of regulatory sandboxes, discussed below.

There is no overarching FinTech-specific legal framework in Kenya. FinTech regulation is instead fragmented and carried out through sector-specific legislation and regulation as well as general legislation which cuts across various sectors (Didenko, 2018). The absence of a tailored approach/ framework for the regulation of FinTech may not adequately address the peculiarities of FinTech. Additionally, some activities may fall outside the regulatory perimeter. A further observation is that there are multiple regulators who may have a mandate over FinTech. The key regulators include: the CBK, CMA, CA, IRA, as well as the Competition Authority of Kenya. On account of the plurality of regulators involved with various activities, there are often overlaps in regulatory jurisdiction which can present difficulties.

Figure 9.1 demonstrates Kenya's regulatory approach across key FinTech verticals. Kenya's regulatory frameworks for the sectors examined are largely similar to the approaches commonly adopted in other SSA jurisdictions. However, Kenya differs in some specific ways in its approach to the regulation of both FinTech and cross-sectoral areas. For example, Kenya has regulatory frameworks in development for its P2P lending vertical, whereas the SSA region most commonly leaves these sectors unregulated. Additionally, Kenya's provisions for the regulation of e-Money are contained within its general payments regulatory

15 See the BFA-CCAF case study on the regulatory environment for FinTech in Kenya for a more detailed discussion of Kenya's approach: https://bfaglobal.com/catalyst-fund/fintech-regulation-kenya.

framework (the National Payments Systems Act and regulations). This differs from the approach taken in some SSA jurisdictions that have standalone e-Money/mobile money regulations or guidelines.

Figure 9.1: Kenya regulatory frameworks in specific FinTech verticals

	PAYMENTS	E-MONEY	REMITTANCES	EQUITY CROWDFUNDING	PEER-TO-PEER
Kenya	General Sector Framework	General Sector Framework	General Sector Framework	Regulatory Framework in Development	Regulatory Framework in Development
Region Mode	General Sector Framework	Fintech Specific Framework	General Sector Framework	Unregulated or Self-Regulated	Unregulated or Self-Regulated

Figure 9.2 indicates that Kenya's regulatory frameworks for the selected cross-sectoral areas are largely similar to the approaches commonly adopted in other SSA jurisdictions. For cybersecurity, Kenya employs a national (generally applicable) cybersecurity law. In addition, for the financial sector, the CBK has issued a guidance note on cybersecurity for the banking sector as well as guidelines on cybersecurity for PSPs (Central Bank of Kenya, 2017b; 2018; 2019). However, one notable exception is the open banking sector where Kenya has a regulatory framework in development, whereas in the majority of jurisdictions in the SSA region this sector remains unregulated

Figure 9.2: Kenya cross-sectoral regulatory frameworks

	DATA PROTECTION	CYBERSECURITY	CONSUMER PROTECTION	OPEN BANKING
Kenya	Financial Services Specific Law/ Framework	Financial Services Specific Law/ Framework	Financial Services Specific Law/ Framework	Law/Regulatory Framework in Development
Region Mode	Financial Services Specific Law/ Framework	Financial Services Specific Law/ Framework	Financial Services Specific Law/ Framework	Unregulated

Examples of positive practice

Regulatory innovation initiatives

The Kenyan financial sector regulators are generally supportive and encouraging of innovation and FinTech. For instance, the CBK has indicated it is open to emerging technologies and will be guided by the philosophy of maximising opportunities while minimising risk (Central Bank of Kenya, 2017b). The Kenyan financial sector regulators have been especially supportive of FinTech firms pursuing financial inclusion objectives.

The CMA's introduction of a regulatory sandbox is linked to the promotion of financial inclusion (CCAF and UNSGSA, 2019; Jenik & Lauer, 2017). The sandbox is designed to test products/services that are not clearly addressed under the existing capital markets regulatory framework. Some examples of the firms that have been admitted into the CMA sandbox since its launch include: cloud-based analytics platforms, internet-based crowdfunding platforms, an issuer of unsecured bonds testing blockchain based platform, a firm testing a blockchain based shareable eKYC solution for capital markets intermediaries and investors, and a robo-advisory platform (Capital Markets Authority of Kenya, 2019a; 2019b; 2020; Nyawira, 2020).

The IRA has also introduced a regulatory sandbox ('BimaBox'). The sandbox provides a regulatory framework for FinTech/InsurTech providers to test new insurance-specific ideas and innovations in the market with real consumers. The IRA oversees tests using a customised regulatory environment, including safeguards for consumers (Insurance Regulatory Authority, 2021a). The regulator has also set up an IRA Innovation Hub ('BimaLab) – a platform to collaborate on innovative insurance products and services (Insurance Regulatory Authority, 2021b).

Consumer Protection

Kenya's efforts in consumer protection also exemplify good practice. In 2016, the Competition Authority of Kenya (CAK), relying on its cross-cutting sectoral mandate that extends to all firms in Kenya, issued an order to financial service providers to fully disclose all applicable charges for transactions delivered via mobile phone (including principal value and any additional fees) prior to completing transactions. As of June 2017, all relevant Kenyan providers, including mobile money providers, had updated their mobile money transfer services to enable customers to receive information on the cost of each transaction automatically (Mazer, 2018).

Agents

Kenya's reputation as a leader in the mobile money sector is partly attributable to its use of agents. Agents have been shown to have a wide reach in SSA and are a key driver of financial inclusion (GSMA, 2019b). The Kenyan regulatory framework permits PSPs to appoint agents to act on their behalf through an agency agreement. However, PSPs remain liable to their customers for the conduct of their agents. Significantly, agent exclusivity is not permitted (Central Bank of Kenya, 2012). CBK data reported that mobile payments through agents were recorded at Ksh 587.98 billion (USD 5.35 billion equivalent) as at July 2021 (Central Bank of Kenya, 2021).[16]

Proportionality

Another notable example of good practice by the Kenyan financial regulators is the treatment of e-Money issuers (EMI) and the proportionate approach set out under the relevant regulatory framework. EMIs are defined in the National Payment Systems Regulations (NPSR) as PSPs who are authorised to issue e-Money.[17] The NPSR further provides for a category of EMIs called 'small EMIs'. Small EMIs are subject to less stringent requirements and may be exempted from complying with certain provisions altogether. For instance, their authorisation fee and core capital requirements are much lower.[18] However, it is notable that EMIs who do not fall into the definition of 'institutions'[19] are prohibited from engaging in lending or investment activities.

Simplified customer due diligence

Kenya is ahead of many SSA jurisdictions with regard to digital identity and has implemented initiatives that link information on the holders of financial accounts. The Integrated Population Registration System (IPRS) enables authorised entities to check the validity of identity documents, in particular the national ID card. Yet, it may be a challenge to make progress towards fully remote authentication from the existing system that consists of cross-checking the identity of individuals, and then going beyond PINs, passwords and tokens (World Bank, 2016a). Despite such challenges, in 2017, a pilot was launched in Kenya on the use of distributed ledger technology to advance onboarding through a digital identity system (CGAP, 2019a).

16 Exchange rate as at 9 September 2021

17 NPSR (Regulation 2).

18 See NPSR regulation 46(2) for exemptions applicable to small EMIs.

19 NPSR Regulation 45 provides that "an e-money issuer, other than an Institution, shall not engage in any lending or investment activity other than that required under these Regulations."; NPSA section 2 defines an "institution" as a bank, mortgage finance company or a financial institution as defined in the Banking Act (Cap. 488) or a microfinance bank business as defined in the Microfinance Act, 2006 (No. 19 of 2006) or any other body which the Minister may, in consultation with the Central Bank, declare, by notice in the Gazette, to be an institution for the purposes of this Act." National Payment Systems Regulations (2014): (Central Bank of Kenya, 2014b).

Regulatory challenges

There are several regulatory challenges observable in the Kenyan market, as summarised below. These have been attributed to the extremely rapid advancements of FinTech development, which is outpacing the capacity for regulators to adapt (Bowmans, 2017).

Table 9.1: Summary of Challenges, Kenya

AREA	SUMMARY OF CHALLENGE
Overlapping regulatory mandates	· The overlaps arise from a plurality of regulatory authorities with oversight over different segments of the financial sector.
	· Attempts have been made at updating and rationalising financial services regulation most recently, explored via the Financial Markets Conduct Bill (2018). The Bill proposed the establishment of a new regulator (the Financial Markets Conduct Authority) to oversee FinTech companies.[20]
Regulatory approach	· Regulatory approach, and specifically an entity/ institution-based approach as opposed to an activity-based approach, poses challenges to regulation of certain categories of FinTech activity e.g., digital credit and virtual currencies (Omondi, 2018; Central Bank of Kenya, 2015).[21]
Limited regulatory scope	· Unregulated initiatives may arise on account of limited regulatory scope, whereby a product/service may not be overtly prohibited. This has resulted in the issuance of regulatory warnings e.g., for categories of digital credit such as those offered via online apps (Omondi, 2018).[22]
	· To specifically address the concerns raised digital credit, the CBK has announced plans to implement further rules (Mutua, 2020; Sejpal & Rebelo, 2020). The regulator is pursuing an amendment of the CBK Act through the Central Bank of Kenya (Amendment) Bill, 2020 (Central Bank of Kenya, 2020). The main objective of this Bill is to amend the Central Bank of Kenya Act to allow the Bank to regulate the conduct of providers of digital financial products and services, including digital credit.

20 https://www.treasury.go.ke/wp-content/uploads/2021/03/Draft-Financial-Markets-Conduct-Bill-2018.pdf

21 In December 2015, the CBK issued a public notice cautioning the public against holding and trading in virtual currencies.

22 To address challenges relating to the proliferation of unlicensed and unregulated financial services and products, six regulators issued a joint public notice highlighting the risk of unregulated mobile lenders. Thereafter, the government warned the public against dealing with these providers, advising that many were operating illegally.

10. The regulatory approach to FinTech in Nigeria

10. The regulatory approach to FinTech in Nigeria

Nigeria is considered a leading FinTech centre in SSA, alongside Kenya and South Africa (Tellimer Research, 2020).

As in other SSA jurisdictions such as Kenya, the launch of mobile money has played a role in the development of the regulatory approach to FinTech. Historically, the development of mobile money in Nigeria has been much slower than Kenya. Its usage is still limited in Nigeria, owing partly to complications in the approach to the licensing process at its inception in 2011-2012 (Shrivastava, 2015). The regulatory approach has continued to evolve, and payment service banks were subsequently established in 2018.[23]

Nigeria has multiple regulators with a mandate over FinTech. The main regulators include: the Central Bank of Nigeria (CBN), the Securities and Exchange Commission of Nigeria (SEC), the Nigerian Communications Commission (NCC), and the Federal Competition and Consumer Protection Commission (FCCPC). Due to the plurality of regulators involved, there are often overlaps in regulatory jurisdiction which can present difficulties. The Nigerian regulators are generally supportive and encouraging of innovation and FinTech and have a genuine desire to see the sector grow. This is reflected in their willingness to engage with innovators and FinTechs, and through recent initiatives such as changes to regulatory frameworks.

Similar to other jurisdictions in the SSA region, Nigeria does not have an overarching FinTech specific legal framework. FinTech regulation is instead fragmented and carried out through sector-specific legislation and regulation as well as general legislation that cuts across various sectors. [24]

Figure 10.1 demonstrates Nigeria's regulatory approach to FinTech across key FinTech verticals. In general, Nigeria's regulatory frameworks for the sectors considered differ from the approach commonly adopted by other jurisdictions in SSA. For example, Nigeria has an established regulatory framework for lending that encompasses P2P lending activities, whereas the most common practice in SSA is to have an unregulated or self-regulated P2P lending environment. Furthermore, Nigeria has established a specific regulatory framework for ECF. Similar to P2P lending, the most common practice in SSA is to leave ECF as an unregulated or self-regulated activity. While Nigeria has a more established regulatory framework in ECF and P2P lending, it matches the most common regulatory practice in SSA in the payments and remittances sectors.

Figure 10.1: Nigeria regulatory frameworks in FinTech verticals

	PAYMENTS	E-MONEY	REMITTANCES	EQUITY CROWDFUNDING	PEER-TO-PEER
Nigeria	General Sector Framework	Fintech Specific Framework	General Sector Framework	Fintech Specific Framework	General Sector Framework
Region Mode	General Sector Framework	Fintech Specific Framework	General Sector Framework	Unregulated or Self-Regulated	Unregulated or Self-Regulated

23 Permitted activities for payment service banks include: maintaining savings accounts and accept deposits; providing payment and remittance services; operating electronic wallets. However, they are not permitted to grant loans or underwrite insurance. Most laws that apply to Deposit Banks also apply to PSBs, except for those relating to credit.

24 See the BFA-CCAF case study on the regulatory environment for FinTech in Nigeria for a more detailed discussion of Nigeria's approach: https://bfaglobal.com/catalyst-fund/fintech-regulation-in-nigeria.

Figure 10.2 illustrates Nigeria's regulatory approach for selected cross-sectoral areas. Nigeria mirrors the most common regulatory approach in SSA towards data protection, consumer protection and cybersecurity.

However, in contrast to most other jurisdictions in SSA, Nigeria has recently developed a regulatory framework for open banking.

Figure 10.2: Nigeria cross-sectoral regulatory frameworks

	DATA PROTECTION	CYBERSECURITY	CONSUMER PROTECTION	OPEN BANKING
Nigeria	Financial Services Specific Law/ Framework	Financial Services Specific Law/ Framework	Financial Services Specific Law/ Framework	Financial Services Specific Law/ Framework
Region Mode	Financial Services Specific Law/ Framework	Financial Services Specific Law/ Framework	Financial Services Specific Law/ Framework	Unregulated

Examples of positive practice

Deposit insurance

FinTech regulation typically necessitates the involvement of multiple regulatory agencies, and with this arises the need for regulatory coordination. The treatment of deposit insurance provides a good example not only of coordination, but also of measures for the safeguarding of customer funds in the context of mobile money. The CBN and the Nigeria Deposit Insurance Corporation (NDIC) jointly created an e-Money framework for mobile money operators (MMOs) called the Deposit Insurance Guidelines on the Mobile Payments System.[25] These guidelines require MMO float accounts to be trust accounts at deposit money banks (DMB) with e-Money customers as beneficiaries. In the event of the failure of an insured institution, each e-Money customer would be covered up to a limit of N500,000 ($1,212). This prescribed limit is applicable to all other types of customer deposits with the same institution, including 'traditional' bank accounts (Nigeria Deposit Insurance Corporation, 2016; CGAP, 2019b).[26]

Equity crowdfunding

Another example relates to the regulation of ECF. ECF was previously de facto illegal under Section 67 of the Investment and Securities Act, which prohibits issuance of securities by private companies (SEC Nigeria, 2007). On this basis, the SEC banned platforms engaging in ECF in 2016. In the recent SEC FinTech Roadmap (SEC Nigeria, 2019), the SEC recommended that interest-based crowdfunding become regulated by the CBN and stated that ECF should be regulated by the SEC (SEC Nigeria, 2019). In line with this, on 21 January 2021, the SEC launched a bespoke regulatory framework for ECF, the Crowdfunding Rules and Regulations (SEC Nigeria 2021). Nigeria is notable as one of the few jurisdictions in SSA with a dedicated ECF framework.

Open banking

Another noteworthy development is the recent issuance by the CBN of a Regulatory Framework for Open Banking in Nigeria (issued on 17 February 2021). The framework has a wide scope and is indicated as applicable to banking and other related services comprising: (i) payments and remittance services; (ii) collection and disbursement services; (iii) deposit-taking; (iv) credit; (v) personal finance advisory and management; (vi) credit ratings/scoring; (vii) leasing/hire purchase; and (viii) mortgages.

25 The NDIC is responsible for overseeing insured institutions in the interest of depositors in cases of financial difficulties.

26 Exchange rate is as at 24 May 2021.

The participants regulated by the framework include providers who employ APIs to provide data or a service to another participant, API users, and FinTech companies (who may be providers or API users).

eKYC

CBN introduced three tiered KYC requirements in 2013. These permit flexible account opening for low and medium-value account holders, including via eKYC (Central Bank of Nigeria, 2013). Their applicability extends to banks and other financial institutions.

Additionally, in 2014, CBN in cooperation with the banking industry, created a centralised biometric identification system, the Bank Verification Number (BVN) (World Bank, 2016b). The project was designed to enable the use of biometric information for smoother customer onboarding, improving KYC and creating a credit history for borrowers. The BVN system, which is separate from the national identity registry, is run by the Nigeria Inter-Bank Settlement System (NIBSS) and is collectively owned by all licensed banks and the CBN (GSMA, 2019a). Not all accounts are required to have a BVN. In line with the tiered KYC system, for low-value mobile payment and mobile banking accounts, the applicant can transmit documentation electronically without having a BVN (Central Bank of Nigeria, 2013). Medium-value accounts are allowed to transmit the documentation electronically, but they require verification through BVN. Customer identification and verification with the BVN is immediate and remote, while NIBSS has provided APIs allowing for BVN integration for FinTechs in Nigeria (FATF, 2020a).

The NCC requires biometric registration for all SIM cards. Data collected can be used by customers to fulfil Tier 1 KYC for any digital financial account with transaction limits. There are stricter Tier 2 and 3 KYC requirements stipulated for customers seeking higher transaction limits (Perlman & Gurung, 2018).

Regulatory innovation

In addition to the framework-specific changes that are already in place, continued regulatory support for innovation is further evidenced by interest in a regulator-led sandbox which is currently in the pipeline. In June 2020, the CBN released an exposure draft of the regulatory framework for sandbox operations (Central Bank of Nigeria, 2020).

Regulatory challenges

Several ongoing regulatory challenges are observable in the Nigerian market as summarised below:

Table 10.1: Nigeria challenges

AREA	SUMMARY OF CHALLENGE
Overlapping mandates	The overlaps arise from a plurality of regulatory authorities with oversight over different segments of the financial sector.
Regulatory approach	Absence of a tailored/unified approach/framework for the regulation of Fintech presents difficulties (Phillips, 2019). The unclear regulatory environment for FinTech has been identified as a challenge that has inhibited the growth of the sector (SEC Nigeria, 2019).
Data Protection	· The SEC's FinTech Roadmap Committee (FRC) has recommended the introduction of measures be to prevent the creation of data provider monopolies.
	· The recently introduced open banking regulations may help to alleviate some challenges around access to data by FinTechs (EIU, 2020; SEC Nigeria, 2019).
Cybersecurity	· The challenge of how FinTechs can protect data from cyber-attacks and improper data usage has been highlighted by the SEC (SEC Nigeria, 2019).
	· The SEC has stated that the cost of establishing cyber security measures to ensure data protection is prohibitive for some FinTechs in Nigeria (SEC Nigeria, 2019).

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