



## FINTECH REGULATION IN KENYA: GLOBAL PRACTISES AND LESSONS LEARNT

Rodgers Musamali, Bhavish Jugurnath, Jackson Maalu, Kenneth Mahuni

PhD Student – University of Mauritius, Senior Lecturer – University of Mauritius, Associate

Professor – University of Nairobi, PhD Student– University of Mauritius

rmusamali@gmail.com, [b.jugurnath@uom.ac.mu](mailto:b.jugurnath@uom.ac.mu), [jmaalu@uonbi.ac.ke](mailto:jmaalu@uonbi.ac.ke),

[kennethmahuni@gmail.com](mailto:kennethmahuni@gmail.com)

**Abstract:** *This paper purposed to review the regulatory regime guiding fintech in Kenya and document lessons from countries that have made considerable strides in fintech regulation at global and regional levels. Rapid innovations in fintech is a cause to remain alert and requires an agile regulatory framework to keep up with the ever-evolving products and services, harness the opportunities, and mitigate against threats that arise. Considering the rapid growth in fintech across the world, some regimes have made milestones in regulation. Documenting and drawing evidence-based lessons from such will be useful in strengthening the current regulatory framework in Kenya and for peer learning purposes. The study employs a qualitative method and establishes the need for multi-sectoral approach to regulation. The case studies offer regulatory lessons in form of regulatory led sandboxes; creation of fintech hub/office; establishment of specific fintech regulatory units (departments) within the ranks of the regulator; coordinated approach to policy making through state and private sector collaboration; regulatory support of new fintech entrants or startups; supportive fintech policy regime; other forms of sandboxes at state or private level. The study also emphasizes on the need for regulatory balance between innovation, integrity of financial markets and consumer protection. The role of research institutions and universities is appreciated in conducting research on fintech.*

**JEL classification:** o3, 033, o38, g28

**Key words:** financial technology, policy, regulation, Kenya

### 1. INTRODUCTION

The Fourth Industrial Revolution (4IR) is poised on harnessing and incorporating technology into business activities. Increasingly, financial technology (fintech) is gaining traction and



playing a pivotal role in this transformation. The Financial Stability Board (FSB)<sup>1</sup> defines fintech as “technologically enabled innovation in financial services that could result in new business models, applications, processes or products with an associated material effect on financial markets and institutions and the provision of financial services”. Fintech interfaces finance and technology (Chang et al., 2020; Lee and Shin, 2018) and contains platforms that disrupt traditional financial services such as mobile payments, money transfers, peer-to-peer lending, and robotic investment advice (Marr, 2017; Schueffel, 2016). Increasingly, evidence suggests that Fintechs do not need financial institutions’ intermediaries to link borrowers and lenders (Rosavina et al., 2019; Wang et al., 2015) therefore redefining the financial services industry. Fintechs are instrumental in closing gaps in financial access for enterprises (Rosavina et al., 2019; Sangwan et al., 2020) and investment management advice (Gomber et al., 2018; Lee and Shin, 2018). They also play a prospective role of creating jobs, spurring innovation, improving people’s lives, increasing opportunities in global trade (Kalifa, 2021), and contributing to overall economic growth. Fintech is also focal to the delivery of better financial outcomes to consumers and micro, small and medium enterprises (MSMEs). Furthermore, it is instrumental in enhancing financial inclusion by bridging the gap between technology and business models related to financial services.

Despite the importance of fintech, due care and vigilance is required regarding the potential risks posed hence the need for regulation. Some of the risks relate to financial stability, consumer protection, competition in and efficiency of the financial sector, and illegal activities. The study adopts the definition of regulations as used by Knight (2016) to be “*rules (whether enshrined in official law, found in private contract, or enforced by the market) that govern how an activity is conducted and provides a means of redress or enforcement if violated*”. Regulators are actors who enforce those rules. The need for regulation is premised on provision of; orderly and reliable markets to attract customers and provide certainty to market actors, a means for redress, a level playing field, systemic security, and law enforcement (Knight, 2016).

## **1.1 Background**

---

<sup>1</sup> <https://www.fsb.org/work-of-the-fsb/financial-innovation-and-structural-change/fintech/>



In Kenya just like the rest of Sub-Saharan Africa (SSA) mobile money and credit platforms dominate the fintech industry and have been instrumental in bringing millions of previously unbanked people into the financial system. Mobile money systems consist of electronic money accounts that can be accessed through mobile telephones which are often likened to simple bank accounts (Demombynes and Thegeya, 2012). Evidence from the Global Findex Database on mobile money usage places Kenya ahead of her peers in the SSA region (Figure 1). This is an indicator of the interest surrounding fintech and props up the country as a leader in the same. Nonetheless, there is immense potential for advancing fintech development in Kenya and the SSA region at large.



Fig. 1 – Mobile money usage in SSA region

Source: Global Findex Database, 2021 and as adopted from Musamali et al. (2023)

Kenya also fairs well globally with mobile money uptake being inter alia higher than Thailand (60%), Argentina (35.08%), Russia Federation (32.94%), Singapore (30.6%), Bangladesh (29.01) and Brazil (26.96%).

The Financial Sector Deepening reports overtime show that Kenya has registered remarkable progress in closing the financial exclusion gap with the rate decreasing from 41.3 per cent to 11.6 per cent between 2006 - 2021. The growth of mobile money in Kenya has also yielded desired effects in financial innovation and is deemed central to achievement of national development goals thorough the Kenya Vision 2030 aspirations of advancing a knowledge-



based economy and exploiting the established lead in digital finance. Globally, Sustainable Development Goals (SDGs) 8.3 and 9 buttresses these efforts while on the regional front the East African Community (EAC) Vision 2050 and the African Union Agenda 2063 are in support of the prospects of digital economies, innovation, and the pathways of development associated with the same.

The fintech ecosystem is made up of innovations that yield to products and services in the areas of payments, digital banking, digital credit, InsurTech, assets and wealth management, equity crowdfunding and cryptocurrencies. Several issues are however worth noting, first, rapid innovations in fintech is a cause to remain alert and requires an agile regulatory framework to keep up with the ever-evolving products and services as well as harness the opportunities and mitigate against threats that arise. Second, considering the fast evolution in fintech across the world, some regimes have made milestones in regulation. Subsequently, documenting and drawing evidence-based lessons from such will be useful in strengthening the current regulatory framework in Kenya. Lastly, considering the novel nature of fintech across the world, documenting evidence of regulation in the sector is vital in providing information to developing regimes and contributing to growing knowledge on the same.

Inspired by the aforesaid, the study utilizes a qualitative approach and carries out a critical desktop review of the situational analysis of fintech regulation in Kenya. It also reviews selected developing and emerging regimes that have made progress in fintech regulation and draws lessons from them. This approach is preferred due to its flexibility and ability to encourage debate going forward. The study therefore contributes to the emerging literature on fintech regulation and offers regulatory lessons from a comparative angle. The rest of the study is organized in three sections. The next section provides an overview of fintech regulation in Kenya. Section 3 provides global and regional level evidence from case studies reviewed. Section 4 concludes the paper.

## **2. FINTECH REGULATION IN KENYA: WHAT WE KNOW**

The development of Mpesa and similar financial products has not only put Kenya on the map as a leader in mobile money but has also accelerated financial inclusion. This is pegged on appropriate, affordable, and accessible financial services built onto mobile and digital



platform's infrastructure. In regulating fintech, Kenya has adopted the 'test and learn' approach towards digital lending and dedicated payments similar to the treatment provided to mobile payments and mobile money<sup>2</sup> since the onset of the innovations. In addition, regulatory sandboxes in the insurance and capital markets have also been adopted. That said, scholars, researchers and policy makers cannot turn a blind eye to these rapid innovations brought about by developments in fintech and therefore need to prioritize agility in the regulatory framework that takes care of such concerns.

Just like other countries, Kenya does not have a one size fits all fintech regulatory framework. The regulation of the fintech industry is based on different sectors in the financial services space where the core financial activity provided is addressed without concentrating on the technology deployed in offering the service<sup>3</sup>. Table 1 summarizes the main financial services regulators in Kenya.

**Table 1: Fintech regulators in Kenya**

Regulator	Mandate
<i>a) Financial services regulators</i>	
The National Treasury and Planning (TNT)	<ul style="list-style-type: none"> <li>Financial services and by extent Fintech fall under its ambit.</li> <li>It formulates, evaluates, and promotes financial policies to meet social and economic transformation objectives of the country.</li> </ul>
Central Bank of Kenya (CBK)	<ul style="list-style-type: none"> <li>Regulates, supervises, and licenses financial institutions to ensure financial stability in accordance with the CBK Act, Cap 491.</li> </ul>
Insurance Regulatory Authority (IRA)	<ul style="list-style-type: none"> <li>Regulates, supervises, and develops the insurance industry in Kenya.</li> </ul>
Capital Markets Authority (CMA)	<ul style="list-style-type: none"> <li>The Capital Markets Act Cap 485A mandates CMA to supervise, license, and monitor the activities of market intermediaries, together with the stock exchange and the central depository and settlement system.</li> </ul>

<sup>2</sup> CCAF (2021) FinTech Regulation in Sub-Saharan Africa, Cambridge Centre for Alternative Finance at the University of Cambridge Judge Business School, Cambridge

<sup>3</sup> TheCityUK and PWC (2022). FinTech in Kenya: Towards an enhanced policy and regulatory framework



Retirement Benefits Authority (RBA)	<ul style="list-style-type: none"> <li>The RBA inter alia regulates and supervises the establishment and management of retirement benefits schemes.</li> </ul>
Sacco Societies Regulatory Authority (SASRA)	<ul style="list-style-type: none"> <li>Supervises and regulates SACCO societies in Kenya including Deposit Taking and Specified Non-Deposit Taking SACCO Societies.</li> </ul>
<b>b) Technology services regulators</b>	
Ministry of Information and Communications Technology (ICT), Innovation and Youth Affairs	<ul style="list-style-type: none"> <li>The communications and technology sector falls within the purview of the ICT Ministry.</li> </ul>
Communications Authority of Kenya (CA)	<ul style="list-style-type: none"> <li>CA is the regulatory authority for the communications sector in Kenya and is empowered to license and regulate information and communications services, including telecommunications, radio communication and broadcasting.</li> <li>CA may license a FinTech company where its operating model incorporates a technological aspect, and the implementation of the innovation requires the FinTech business to establish its own telecommunications infrastructure or result in content generation.</li> </ul>
<b>c) Other relevant regulators</b>	
Competition Authority of Kenya (CAK)	<ul style="list-style-type: none"> <li>CAK's main purpose is to promote and protect effective competition in markets and prevent misleading market conduct within the country</li> </ul>
Office of the Data Protection Commissioner (ODPC)	<ul style="list-style-type: none"> <li>ODPC regulates the processing of personal data and to protect the privacy of individuals.</li> </ul>
Financial Reporting Centre (FRC)	<ul style="list-style-type: none"> <li>FRC is created by the Proceeds of Crime and Anti-Money Laundering Act (POCAMLA) 2009, with the principal objective of assisting in the identification of the proceeds of crime and the combating of money laundering.</li> </ul>
Kenya Revenue Authority (KRA)	<ul style="list-style-type: none"> <li>KRA is responsible for the assessment, collection and accounting for all revenues that are due to government, in accordance with the laws of Kenya.</li> </ul>

Source: Authors' compilation and as adopted from Musamali et al. (2023)

## 2.1 Overview of fintech regulation in Kenya

Regulation of fintech in Kenya follows a sector specific approach focused on the financial services activity being regulated. The main financial services that are regulated include digital payments, digital banking, digital credit, InsurTech, assets and wealth management, cryptocurrencies, and equity crowdfunding. Cross cutting issues include information



communication technology, data protection and privacy, consumer protection, cybersecurity, and anti-money laundering and Know-Your-Customer (KYC). The World Bank has classified four regulatory approaches: (a) Wait and See (b) Test and Learn (c) Innovation Facilitators (which includes Sandboxes) and (d) Regulatory Laws and Reform (WBG, 2020). Kenya has adopted the ‘test and learn’ blended with inclusion of regulatory sandboxes as approaches to guide the fintech sector in the midst of rapid innovations. Table 2 provides a summary of institutions offering fintech regulation and their responsibilities.

**Table 2: Summary of institutions offering fintech regulation in Kenya and their responsibilities.**

Product	Regulator	Responsibility	Reference
Digital payments	CBK	Authorization, licensing, and regulation of fintech entities in digital payments	National Payment Systems Act, 2011 and the National Payments Systems Regulations, 2014.
Digital credit	CBK	Licensing and regulation of digital credit entities	Central Bank of Kenya Act Cap 491 and Digital Credit Providers guidelines, 2022
Digital banking	CBK	Licensing and regulation of entities in banking business	CBK Prudential Guidelines and Banking Act, Cap 488.
Insurtech	IRA	Licensing and regulation of insurance service providers	Insurance Act (Amendment) 2006, Cap 487
Assets and wealth management	CMA	Licensing and regulation of market intermediaries	CMA Act Cap 485A
Cryptocurrencies	CBK/CMA	Regulatory approach still uncertain depending on whether considered as virtual currencies (not recognized as legal tender by CBK) or securities (CMA to offer regulation)	CMA Act Cap 485A and CBK public notice on cryptocurrencies.
Equity crowdfunding	CMA	Licensing of platform operators and issuance of letter of no objection from CMA/or CBK	Investment Based Crowdfunding Regulations, 2021
FinTech entities integrating telecommunications	CA	Regulates Network Facilities Provider, Application Service	Kenya Information and Communications Act, 1998



		Provider, and Content Service Provider	
Fintech entities utilizing personal data	ODPC	Regulates processing of personal data	The Data Protection Act, 2019, and the Constitution of Kenya 2010
All financial service providers	FRC	Register with FRC as reporting institutions	Proceeds of Crime and Anti-Money Laundering Act, 2009; Prevention of Terrorism Act, 2012; and Digital Credit Providers guidelines, 2022.

Source: Authors’ compilation and as adopted from Musamali et al. (2023)

### 3. GLOBAL AND REGIONAL EVIDENCE ON FINTECH REGULATION

The study documents evidence from global and regional jurisdictions which have made progress in regulation of the fintech sector and from which Kenya can benchmark through peer learning. It is also important to note that considering the ever-evolving nature of fintech, reviewed countries can peer learn from each other as well. Countries reviewed on the global scale include United Kingdom, Singapore, United States of America, China, India, and Australia. At regional level Mauritius, Nigeria, South Africa, Egypt, and Rwanda were reviewed.

#### a) United Kingdom

The UK’s approach to fintech regulation is considered agile due to its ability to keep up with modern trends but also responsive towards financial inclusion, consumer choice and creation of an enabling environment for spurring innovation. The UK's financial services regulatory regime is well established and benefits from the supervision of the Financial Conduct Authority (FCA), which maintains a reputation as one of the gold-standard regulatory bodies worldwide<sup>4</sup>. It does not however have a single regulatory framework governing fintech providers. Fintech entities are subject to existing banking and finance framework in line with the activities they perform. Apart from FCA, the Prudential Regulation Authority (PRA) also plays an important role in regulation. Some areas of fintech regulation in the UK are discussed as follows:

#### *Payment services*

<sup>4</sup> <https://thelawreviews.co.uk/title/the-financial-technology-law-review/united-kingdom>





The FCA regulates payment services in the UK. The Payment Services Regulations, 2017 (PSRs) are applied on activities related to provisions of payments. This relates to authorisation, registration and conduct of business obligations of those entities. Some of the activities include services relating to the operation of payment accounts (e.g., cash deposits and withdrawals from current accounts and savings accounts), execution of payment transactions (whether covered by a credit line or otherwise), card issuing and money remittance.

#### *Licensing and Marketing*

This is regulated by the FCA/PRA. The FCA is technology neutral in that rules applying to fintech businesses operating in the UK will depend on the activities being carried on by each business. At the onset, compliance with section 19 of the Financial Services and Markets Act, 2000 which ensures conformity with regulated activities is required. Authorisation and registration applications of regulated businesses must be made to FCA or in some cases PRA. The FCA launched the world's first regulatory sandbox in June 2016 which has subsequently been replicated abroad by regulators following the UK's lead in innovation. It is open to both authorised and non-authorised entities requiring authorisation. Further, the 2020 regulatory sandbox proposed areas for innovation including the move to a greener economy.

#### *Digital credit services*

The FCA/PRA regulates digital credit services.

#### *Insurance*

The insurance sector is governed by the Insurance Act, 2015. The regulation of the insurance sector is tech-neutral with insurers who deploy technology required to comply with the existing regulatory framework governing insurance services. Regulatory disputes between consumers and insurers or intermediaries are determined by the Financial Ombudsman Service (FOS). Insurance activities are largely regulated by the FCA, PRA, and FOS.

#### *Cryptocurrencies and E-money*

Security tokens (cryptocurrencies) have the characteristics of a specified investment such as a share or a debt instrument, falling within the regulatory purview. E-money (electronic money)



token have their categorization in the E-money regulations, 2011 (EMRs). The FCA provides regulation of cryptocurrencies and E-money.

#### *Crowdfunding*

The FCA regulates crowd funding platforms.

#### *Data protection*

Data protection issues are within the regulatory realm of the Information Commissioner's Office (ICO).

#### *Anti-money laundering*

The FCA oversees regulation of AML and related issues. AML regime is embodied with the Proceeds of Crime Act, 2002 (POCA) and the Money Laundering, Terrorist Financing and Transfer of Funds Regulations, 2017 (the MLRs) which criminalize money laundering and failure to report suspicions of money laundering.

#### *Cybersecurity*

The key regulators include ICO, Office of Communications, or the Secretary of State for Health in specific instances. Cybersecurity regulations comprise Network and Information Systems Regulations, 2018 (NIS Regulations); Electronic Identification and Trust Services for Electronic Transactions Regulations, 2016; Communications Act, 2003; Privacy and Electronic Communications (EC Directive) Regulations, 2003 (PECR); and Computer Misuse Act, 1990.

#### *Other features*

Another notable feature of the UK fintech ecosystem is the Fintech Hub, an avenue used by the Bank of England to engage with Fintech providers. The Fintech Hub helps the Bank of England to implement Fintech in its own operations, understand FinTech operations and assess the potential risks (TheCityUK and PWC, 2022).

#### b) Singapore



According to Pei (2018) the Monetary Authority of Singapore (MAS) oversees the regulatory approach to support and supervise Fintech developments in Singapore. To symbolize seriousness attached to the fintech sector, MAS formed a new FinTech and Innovation Group (FTIG) with same level of hierarchy to Financial Supervision Group within the regulators structure. FTIG provides regulatory policies and develops strategies to facilitate use of technology and innovation to manage risks, enhance efficiency, and enhance competitiveness in the financial sector. The regulator also established an International Technology Advisory Panel (ITAP) to track and provide information on international developments in Fintech and how it could benefit Singapore. ITAP draws expertise from major financial institutions, Fintech business leaders, venture capitalists, and opinion leaders in technology and innovation. The panel provides feedback on how to sustain and improve a regulatory framework that spurs innovation but also maintains trust and confidence in the financial system.

There is also an established Fintech Office through a collaboration between MAS and the National Research Foundation (NRF). The Fintech office promotes Singapore as a fintech hub and serves as a one stop virtual entity for all fintech matters. The Fintech office is also viewed as an enabler of a whole-of-government approach towards development of the Fintech ecosystem with several objectives (a) reviewing, aligning, and enhancing Fintech-related funding schemes across government agencies (b) identifying gaps and proposing strategies to facilitate growth in industry infrastructure, talent and manpower requirement and enhance business competitiveness (c) brand and market Singapore as a fintech hub through events and initiatives.

MAS appreciates heterogeneity in the different fintech platforms hence one blanket regulation may not be appropriate. Different regulations are therefore developed for different technologies. MAS also adopts a risk-based approach to regulation for the unregulated sector since premature regulation stifles innovation. Essentially, regulation follows material risk. Further, MAS uses Regulatory Sandbox for trials by both FinTech start-ups and large financial companies to experiment with financial technology (FinTech) solutions. The FinTech Regulatory Sandbox framework enables financial institutions and FinTech players to experiment with innovative financial products or services in a live environment but within a well-defined space and



duration<sup>5</sup>. The sandbox offers appropriate safeguards to deal with repercussions of failure while maintaining the overall safety and soundness of the financial system. The key areas of regulation are discussed as follows:

#### *Financial services*

The Monetary Authority of Singapore (MAS) regulates the financial services industry. It administers various legislations guiding financial institutions such as banks, insurance, capital markets, financial advisers, and stock exchanges.

#### *Competition and consumer protection*

The Competition and Consumer Commission of Singapore (CCCS) regulates competition and consumer protection. It enforces competition issues in line with the Competition Act, 2004 while the Consumer Protection (Fair Trading) Act, 2003 (CPFTA) provides the consumer protection legislation.

#### *Data protection*

The Personal Data Protection Commission (PDPC) enforces the personal data protection Act, 2012 which governs the collection, use and disclosure of personal data.

#### *Cybersecurity*

The Commissioner of Cybersecurity (CoC) provides regulation of cybersecurity related issues. The key Cybersecurity laws include the Cybersecurity Act, 2018, the Computer Misuse Act, MAS Guidelines on Risk Management Practices, and MAS Notices on Cyber Hygiene.

#### *Anti-money laundering*

The MAS regulates AML and related issues. Singapore utilizes a general international framework based on the guidelines provided by the Financial Action Task Force (FATF). MAS has released various sector specific notices to banks and finance companies.

#### c) United States of America

---

<sup>5</sup> <https://www.mas.gov.sg/development/fintech/regulatory-sandbox>



The US has a complex financial regulatory regime which is largely a result of the two-tiered regulatory environment, where states and the federal government both regulate financial activities and by extent fintech entities and products. Some of the State and Federal agencies have embraced creation of fintech innovation offices to address fintech related developments. To address knowledge gaps between regulators and the fintech entities initiatives that encourage better state cooperation; establishment of sandboxes exist (though none exists at the federal level, but several exist at the state level); Artificial Intelligence regulations; and Blockchain, Smart Contracts, and Decentralized Finance (DeFi) issues. Several states have established sandboxes including Arizona, Florida, Nevada, Utah, West Virginia, and Wyoming. The key regulatory domains, actors, and their functions (activities) therein include:

*State-chartered banks (federal reserve system non-members)*

They are regulated by the Federal Deposit Insurance Corporation (FDIC) which is an independent agency created by the Congress to maintain stability and public confidence in the nation's financial system<sup>6</sup>. It regulates state-chartered banks that are not members of the federal reserve system. The FDIC is currently modernising the bank call report based on fintech and artificial intelligence solutions.

*National banks and other financial institutions*

The Office of the Comptroller of the Currency (OCC) charters, regulates, and supervises all national banks, federal savings associations, and federal branches and agencies of foreign banks<sup>7</sup>. It has an established office of innovation tasked with implementing a framework that supports responsible innovation to enhance the safety and soundness of the federal banking system, treats customers fairly, and promotes financial inclusion. It also considers applications for special purpose national bank charters from financial technology (fintech) companies that are engaged in the business of banking but do not take deposits.

*State-chartered banks (federal reserve system members)*

---

<sup>6</sup> <https://www.fdic.gov/>

<sup>7</sup> <https://www.occ.gov/about/who-we-are/index-who-we-are.html>



The Federal Reserve system is the central bank of the United States that regulates state-chartered banks that are members of the Federal Reserve System and all depository institutions including their holding companies. It supports responsible innovation, both by regulated firms and the financial market including digital currencies and artificial intelligence.

#### *Deposit insurance*

The National Credit Union Administration (NCUA) is an independent federal agency that insures deposits at federally insured credit unions, protects the members who own credit unions, and charters and regulates federal credit unions<sup>8</sup>. The NCUA is slightly conservative in dealing with fintech developments<sup>9</sup>.

#### *Consumer protection*

The Consumer Financial Protection Bureau (CFPB) implements and enforces Federal consumer financial law and ensures that markets for consumer financial products are fair, transparent, and competitive<sup>10</sup>. This laws also impact on fintech.

#### *Competition*

The Federal Trade Commission (FTC) protects consumers on competition issues by preventing anticompetitive, deceptive, and unfair business practices through law enforcement, advocacy, and education without unduly burdening legitimate business activity<sup>11</sup>. This includes fintech that provide financial services such as payments, lending, and cryptocurrency.

#### *Anti-money laundering*

The Financial Crimes Enforcement Network (FinCEN) safeguards the financial system from illicit use, combats money laundering and its related crimes including terrorism, and promotes national security through the strategic use of financial authorities and the collection, analysis,

---

<sup>8</sup> <https://www.ncua.gov/about>

<sup>9</sup> <https://www.ncua.gov/newsroom/speech/2022/ncua-board-member-rodney-e-hood-remarks-2022-cuna-governmental-affairs-conference-washington-dc>

<sup>10</sup> <https://www.consumerfinance.gov/about-us/>

<sup>11</sup> <https://www.ftc.gov/>



and dissemination of financial intelligence<sup>12</sup>. Through its Innovation Initiative, AML compliance through innovation is promoted.

### *Cryptocurrency*

The regulation of cryptocurrency overlaps between the mandates of Securities and Exchange Commission (SEC), Commodity Futures Trading Commission (CFTC), and Financial Industry Regulatory Authority (FINRA). They protect investors from Fintech related scams, regulates the activities of cryptocurrency exchanges, and enforce federal securities and commodities trading laws implicated in fintech offerings.

### *State regulation*

The New York Department of Financial Services (NYDFS) is at the forefront of licensing cryptocurrency businesses, including transmitting and buying/selling virtual currency and providing exchange services.

### *Data privacy and security requirements*

The Federal Trade Commission (FTC) oversees regulation of data privacy and security requirements. Financial institutions are subject to federal and in some instances state privacy and security requirements but largely the Gramm-Leach-Bliley Act (GLBA) under FTC which requires financial institutions to explain their information-sharing practices to their customers and to safeguard sensitive data<sup>13</sup>.

#### d) China

The People's Bank of China (PBC) is the lead Fintech regulator in China. Fintech is divided into four categories in China: (i) Payment, clearing and settlement services which is widely used in many jurisdictions. In retail sector it may take the form of mobile wallets and digital currencies while in wholesale it includes foreign exchange and digital exchange platforms. Mobile platforms in China include Alipay and WeChat Pay. An e-CNY (digital Chinese Yuan) is also available (ii) Deposit, loans and financing services which comprises mobile banking,

---

<sup>12</sup> <https://www.fincen.gov/about/mission>

<sup>13</sup> <https://www.ftc.gov/business-guidance/privacy-security/gramm-leach-bliley-act>



internet lending and credit rating. (iii) Investment management services which allow use of fintech in investment decision making and high-frequency trading, and (iv) Market support services that includes internet of things (IoT), data applications (big data analysis and machine learning), blockchain, cloud calculations and AI. Notably, the Internet Finance Development Guiding Opinions of 2015 provide a framework for regulating online activities from the onset. Further, China's regulatory regime for FinTech appears relatively supportive of new entrants and sector growth. It ranks highly for ease of entry and business models are easily replicated, which results in strong competition. Some of the key regulatory institutions and their domains in China are discussed as follows:

#### *Internet payments*

The People's Bank of China (PBC) regulates internet payments by banking financial institutions and third-party payment institutions.

#### *Online lending*

The China Banking, and Insurance Regulatory Commission (CBIRC) regulates online lending (including P2P and internet small-amount lending) and internet insurance. Measures on Internet Insurance Business (New Measures) by CBIRC were endorsed in November 2020 and came into effect in February 2021. In September 2017, the PBC and six other government agencies jointly warned of the risks of ICOs through the Circular on Preventing Token Fundraising Risks.

#### *Equity crowd funding and internet fund sales*

The guiding opinions indicate that equity crowdfunding is regulated by the China Securities Regulatory Commission (CSRC) at a national level.

#### *Cyber Security and data protection*

The People's Bank of China (PBC) oversees cyber security and data protection regulation. The People's Republic of China (PRC) Cyber Security Law (the CSL) that came into effect in June 2017 imposes stringent restrictions on the collection and use of personal information by network operators. Other legal provisions include the Personal Financial Information Protection





Technical Specification (the PBOC PFI); Data Security Law (DSL) and China Personal Information Protection Law (PIPL). These laws and data provisions apply to fintech businesses since they rely heavily on personal data to develop their business, through precision marketing, online ads, and personal profiling.

### *Cryptocurrency*

China does not recognise cryptocurrencies as legal tender or as a tool for retail payments. A circular on the Prevention of Risks from Bitcoin jointly issued by PBC and several commissions in December 2013 (2013 Circular) defined Bitcoin as a virtual commodity and warned the public about the risks of Bitcoin.

### *Anti-money laundering*

In 2018 the PBOC, CBIRC and CSRC jointly published the Administrative Rules for Internet Financial Institutions engaging in Anti-Money-Laundering and Anti-Terrorism Financing (Tentative Rules). The Tentative Rules imposed essentially the same AML obligations applicable to traditional financial institutions on internet financial institutions.

#### e) India

The importance of the fintech sector in India is buttressed through the establishment of a fintech department under the Central Bank of India (Reserve Bank of India – RBI) to focus on fostering innovation, identifying challenges and opportunities, inter-regulatory, international coordination on fintech, and regulatory sandbox among others. The fintech ecosystem in India is dominated by digital payments and lending companies with other segments rapidly growing for instance in areas of personal finance, instant credit, and enterprise solutions. The primary fintech regulator is the Central Bank (RBI) which regulates settlements, payments, foreign exchange, cross border transactions, and financial entities in the finance space such as Banks, Non-Banking Financial Companies (NBFCs) and Credit Information Companies. Considering the multi-sectoral nature of fintech entities, other regulators include Securities and Exchange Board of India (SEBI) which regulates investment and trading in the capital market including investment advisory services; Insurance Regulatory Development Authority of India (IRDA) which regulates the insurance sector; Ministry of Electronics and Information Technology (MEITY) which inter alia enhances efficiency through digital services; and the Ministry of



Finance. Further the National Payments Corporation of India (NPCI) which is a not-for-profit company that operates notable payment systems in India such as Unified Payment Interface (UPI), RuPay (card payment network) and payment aggregators performs quasi-regulatory function. The NPCI is an initiative of the RBI and the Indian Banks' Association (state and private sector collaboration) under the provisions of the Payments and Settlements Act, 2007 (P&SS Act) for creating a robust payment and settlement infrastructure in India. Important highlights on fintech regulation and regulatory approaches in India are provided as follows:

### *Payments*

The payments and Settlements Act, 2007 (PSS Act) and the Payment and Settlement Systems Regulations, 2008 offers the principal regulation on payments in India. In line with this Act, RBI offers notifications and regulations to regulate the fintech sector in India. Entities such as retail payment organisations, card payment networks, and payment aggregators among others wishing to establish and operate payment systems must seek for authorisation from RBI (Section 4 of the PSS Act).

### *Know Your Customer (KYC)*

The Reserve Bank of India ((Know Your Customer (KYC)) Directions, 2016<sup>14</sup> are applicable to all entities under the regulatory purview of RBI and prescribe requirements to be complied with while dealing with account holders and non-account holders.

### *Anti-money laundering*

In tandem with global practises for the fight against money laundering and proceeds of crime the Prevention of Money Laundering Act, 2002 (PMLA) and the Prevention of Money-Laundering (Maintenance of Records) Rules, 2005 (PMLR) provide a regulatory guide. They impose obligations on banking companies, financial institutions, and intermediaries to verify the identity of clients, maintain records and furnish information in a prescribed form to Financial Intelligence Unit - India (FIU-IND) which is the central national agency responsible

---

<sup>14</sup> <https://www.rbi.org.in/CommonPerson/english/scripts/notification.aspx?id=2607>



for receiving, processing, analysing, and disseminating information relating to suspect financial transactions.

#### *Data localisation and data privacy*

The RBI through a notification has stipulated data localisation requirements which requires storage of payments systems data only in India applicable to Payment Service Operators and Banks operating in India. The Information Technology Act, 2000 is the primary law in India for matters related to cybercrime and e-commerce. It gives legal sanction to electronic commerce and electronic transactions, to enable e-governance, and to prevent cybercrime. The Personal Data Protection Bill, 2019 expands the regulatory scope of data protection in India.

#### *Regulatory Sandbox*

The RBI, SEBI, and IRDA have put in place enabling frameworks for regulatory sandboxes. Four thematic cohorts for regulatory sandboxes by RBI have been tested including retail payments, cross-border payments, MSME lending and prevention and mitigation of financial frauds. The RBI's Fintech Regulatory Sandbox established in 2018 had a primary objective of offering a controlled environment for testing fintech products.

#### *Cryptocurrency*

The RBI has taken a cautionary approach towards cryptocurrencies through public notices (e.g., public notices issued in issued December 24, 2013, February 1, 2017, and December 5, 2017) advising users, holders, and traders of virtual currencies of the associated risks. Further RBI issued a circular on April 6, 2018, titled "Prohibition on dealing in Virtual Currencies" (VC Circular) which sought to bar entities regulated by RBI from dealing in cryptocurrencies or provide services for facilitating any person or entity in dealing with or settling cryptocurrencies, though this was challenged at the Supreme Court of India on grounds of being unconstitutional.

#### f) Australia

With the advent of Covid-19 fintech product offerings ingeniously have expanded in scope from traditional financial services (lending, personal finance, and asset management) to core product offerings which include payments, wallets, wealth and investment, data and analytics



and decentralised finance. Generally, Australian regulators are receptive to the growth of the fintech ecosystem, an aspect that is recognized to be important in advancing the policy and legislative framework that is largely yielded from extensive discussions between regulators and industry players (multi-stakeholder engagement). However, regulators have the challenge of adapting and aligning existing financial regulations to new products and services, as well as creating a balance between innovation and consumer protection. A salient feature of the Australian fintech environment is the member-driven organisations such as FinTech Australia that is playing a role in building an ecosystem of Australian fintechs to advance the global economy and culture. This is aimed at building a strong community, fostering connections, supporting innovation and regulation of their members, and providing a voice to the Australian fintech community<sup>15</sup>. Highlights of the regulatory ecosystem in Australia is discussed in the foregoing section.

#### *Financial services*

The Australian Securities and Investment Commission (ASIC) regulates corporate, markets, financial services, and consumer credit<sup>16</sup>. The ASIC seeks to collaborate with innovative start-ups and scaleups across marketplace lending, crowdfunding, robo-advice, payments and blockchain. Through this collaboration, ASIC seeks to understand the challenges that startups face with legal compliance, which may become impractical as the global tech industry continues to leap forward<sup>17</sup>. It also helps fintech companies navigate the regulatory system and streamlines the licensing process where possible to enable fintech innovation.

#### *Banking and insurance*

The Australian Prudential Regulation Authority (APRA) is an independent statutory authority that supervises institutions across banking, insurance and superannuation and promotes financial system stability in Australia<sup>18</sup>.

#### *Anti-money laundering, and counter-terrorism financing (AML/CTF)*

---

<sup>15</sup> <https://www.fintechaustralia.org.au/about/>

<sup>16</sup> <https://asic.gov.au/about-asic/what-we-do/our-role/>

<sup>17</sup> <https://asic.gov.au/for-business/innovation-hub/asic-and-fintech/>

<sup>18</sup> <https://www.apra.gov.au/>



The Australian Transaction Reports and Analysis Centre (AUSTRAC) is responsible for detecting, deterring, and disrupting criminal abuse of the financial system to protect the community from serious and organised crime<sup>19</sup>. AUSTRAC deals with anti-money laundering and counter-terrorism financing. AUSTRAC's fintel alliance has an innovation hub that is aimed at combating money laundering and terrorism financing and improving the relationship between fintech sector, the government, and other regulators.

#### *Data access and privacy*

The Office of the Australian Information Commissioner (OAIC) promotes and upholds privacy and information access rights by ensuring<sup>20</sup> (a) compliance with the Privacy Act of 1988 by Australian Government agencies and organisations with an annual turnover of more than \$3 million, and some other organisations while handling personal information (b) protecting the public's right of access to documents under the Freedom of Information Act 1982 (FOI Act) (c) carrying out strategic information management functions within the Australian Government under the Australian Information Commissioner Act 2010 (AIC Act).

#### *Consumer law requirements*

The Australian Competition and Consumer Commission (ACCC) enforces the Competition and Consumer Act 2010 and a range of additional legislation, promoting competition, fair trading and regulating national infrastructure for the benefit of all Australians<sup>21</sup>. It aims at ensuring markets work for consumers. It also enforces Australian consumer law prohibitions which may affect fintechs. ASIC enforces consumer law through mirrored provisions in the ASIC, 2001 Act.

#### g) Mauritius

The fintech sector in Mauritius is on the right trajectory with a strong push for the country to establish itself as a fintech hub in the African region. Subsequently, with the establishment of the Mauritius Africa Fintech Hub (MAFH), this bid is becoming a reality. MAFH brings together entrepreneurs, corporations, governments, tech experts, investors, financial service

---

<sup>19</sup> <https://www.austrac.gov.au/about-us/austrac-overview>

<sup>20</sup> <https://www.oaic.gov.au/about-us/what-we-do>

<sup>21</sup> <https://www.accc.gov.au/about-us/australian-competition-consumer-commission/about-the-accc>



providers, universities, and research institutions to collaborate on building cutting-edge solutions for the emerging African market<sup>22</sup>. Alongside paving the way for international FinTech companies and financial service providers to access the African market, MAFH also facilitates African FinTech ventures to do business across borders. In the most recent past, Mauritius has taken some positive step to improve its legislative framework aligned to international AML/CFT standards<sup>23</sup> which have implications for the fintech sector. This is in relation to the enactment of the Virtual Asset and Initial Token Offering Services Act in 2021 to provide a regulatory framework for the Fintech sector. The objective is to regulate new and developing business activities that pertain virtual assets (VAs) and initial token offerings (ITOs). This came on the heels of an indicting report by the Financial Action Task Force (FATF) which claimed that the country had strategic deficiencies in its anti-money laundering and counter-terrorist financing (AML/CFT) regimes. Several issues are addressed by the Act including licensing, registration of issuers of initial token offerings, overseeing and monitoring of VASPs, governance structures, risk management and information, disclosure issues for VASPs, protection of customers and compliance with international standards.

The Financial Services Commission introduced the Financial Services (Robotic and Artificial Intelligence Enabled Advisory Services) Rules 2021. The rules allow those who hold Robotic and Artificial Intelligence Enabled Advisory Services licences to provide advisory services “*includes discretionary and non-discretionary investment and portfolio management services provided by the licensee to its clients*” through expert systems and/or computer programmes using artificial intelligence enabled algorithms, with limited human intervention. Further notable developments in the fintech sector include issuance of the Financial Services (Crowdfunding) Rules 2021 by FSC in a bid to sustain the growth of the FinTech ecosystem within the Mauritius International Financial Centre. The Crowdfunding regulatory framework is poised to help shape and improve access to finance for individuals, entrepreneurs, and Small and Medium Enterprises (SMEs) operating in or from Mauritius. The rules also present to

---

<sup>22</sup> <https://mauritiustech.org/>

<sup>23</sup> <https://www.business-magazine.mu/rencontre/parole-dexperts-rencontre/the-arrival-of-legislation-in-the-fintech-industry/>



investors the opportunity to contribute to the growth of SMEs in a regulated environment hence boost entrepreneurial spirit.

The budget 2021/22 proposed setting up of a single desk for FinTech related applications. This was in line with improving the attractiveness of the country in fintech activities and transforming it into a leading FinTech Hub. Additional proposals included rolling out of a Central Bank Digital Currency (CBDC) on a pilot basis which was an indication of the receptiveness and willingness to innovate by the Mauritian Government. CBDCs will allow individuals and businesses to have a digital wallet or bank account directly with their central bank. A fintech innovation hub and digital lab is proposed to be set up to provide a platform for advancing development of the fintech industry and promote the entrepreneurship culture in that field. A summary of the fintech regulatory ecosystem is provided as follows:

*Financial services (other than banking)*

The Financial Services Commission, Mauritius (FSC) is the integrated regulator in Mauritius for the financial services sector (other than banking) and global business. It is mandated through the Financial Services Act, 2007 alongside other enabling legislations which include the Securities Act 2005, the Insurance Act 2005, the Private Pension Schemes Act 2012 and the Virtual Asset and Initial Token Offering Services Act 2021. The functions of FSC include licensing, regulating, monitoring, and supervising the conduct of business activities in the NBFS, securities, insurance, pensions and VA and ITO sectors. It also emphasizes compliance with Anti-Money Laundering/Combating the Financing of Terrorism (AML/CFT). Data protection issues and consumer protection are also considered. The FSC also issues Regulatory Sandbox Licences and set up FinTech Innovation Hubs for the non-banking financial services.

*Financial services (including banking)*

The Bank of Mauritius (BoM) regulates financial services. It also facilitates issuance of Regulatory Sandbox Licences, compliance with Anti-Money Laundering/Combating the Financing of Terrorism (AML/CFT), data protection issues, and consumer protection. In addition, the bank issues full-fledged digital bank licences as well as Regulatory Sandbox Licences for tech-enabled banking solutions. There are also ongoing revisions in the bank's



organization structure to include a Digital Innovation and FinTech Division with an intent to set up FinTech Innovation Hubs for the banking sector.

#### h) Nigeria

There is no single authority established to regulate fintech services in Nigeria. Regulation of fintech services depends on the operation (activity) the fintech company is engaged in. A key highlight of the fintech environment in Nigeria is the Start-Up Marketplace which is a platform for providing start-ups in the fintech ecosystem with access to free and discounted services in funding, legal, infrastructure, cybersecurity, data privacy, business development and was launched by FinTech Association of Nigeria<sup>24</sup>. This is in line with the Nigeria startup bill project introduced through a joint initiative between startup ecosystem and the Presidency to come up with co-created regulations and create an enabling environment for investments in Technology startups<sup>25</sup>. A discussion on important institutions tasked with regulating certain segments of the fintech ecosystem in Nigeria ensues:

#### *Payments and lending*

The Central Bank of Nigeria (CBN) regulates lending and payment financial services. It also licences banks and other financial institutions including fintech companies offering financial services. The CBN and Nigeria Inter-Bank Settlement System (NIBSS) support the Fintech Industry Innovative Sandbox launched by Financial Services Innovators (FSI) to lower entry barriers into Fintech space such as licensing and regulation. Notably, this is a privately initiated sandbox. In June 2020, CBN issued the approved Sandbox Operations Framework which enable fintech innovators to test their products, services, or solutions without the need to acquire a CBN licence. In 2021 CBN put forth the CBN Framework for Regulatory Sandbox Operations<sup>26</sup> to provide firms with a controlled environment for live testing of new, innovative products, services, delivery channels, or business models while CBN provides regulatory oversight in conformity to appropriate conditions and safeguards. The CBN has been

---

<sup>24</sup> <https://businessday.ng/news/article/fintechngr-targets-startup-growth-with-marketplace/>

<sup>25</sup> <https://startupbill.ng/>

<sup>26</sup> <https://www.cbn.gov.ng/>





instrumental in the introduction of a digital currency “eNaira” that provides a unique form of money denominated in Naira<sup>27</sup>.

#### *Asset and wealth management*

The Securities and Exchange Commission (SEC) provides regulation of assets and wealth management, including crowdfunding. The Investment and Securities Act (ISA), 2007 empowers the commission to regulate investments and securities in Nigeria. Through registration, the commission is tasked with facilitating fintech innovations that lead to new products and processes to expand the breadth and depth of the capital market including those fintechs that seek to raise capital from the capital markets<sup>28</sup>. The SEC created a fintech and innovations office (FINO) to facilitate internal and external information dissemination, communication with innovators and provide guidance on regulatory requirements<sup>29</sup>. In addition, it has created an innovation and fintech portal dubbed “finport” where innovations and Financial Technology (FinTech) are encouraged and facilitated<sup>30</sup>.

#### *Telecommunications*

The National Communication Commission (NCC) draws its authority from the Nigerian Communications Act, 2003 to regulate the telecommunications industry. Fintech companies utilizing mobile phones and networks fall under the jurisdiction of NCC and must seek for licenses from the same commission.

#### *Data privacy and cybersecurity*

The National Information Technology Development Agency (NITDA) is guided by the NITDA Act, 2007 to create and enforce data protection regulations in Nigeria. Subsequently, the NITDA issued the Nigerian Data protection regulations 2019 and the implementation framework in 2020. The Nigerian Data protection Bureau was established in February 2022 with a mandate of overseeing the implementation of the Nigerian Data Protection Regulations

---

<sup>27</sup> <https://enaira.gov.ng/>

<sup>28</sup> <https://sec.gov.ng/>

<sup>29</sup> <https://sec.gov.ng/sec-fintech-faqs/>

<sup>30</sup> <https://sec.gov.ng/finport/>



(NDPR) 2019 and making data privacy a cornerstone of sustainable digital economy in Nigeria, among others<sup>31</sup>.

### *Insurtech*

The National Insurance Commission (NAICOM) which is mandated by the NAICOM Act, 1997 to regulate and control insurance business in Nigeria. Insurtech's licensing are therefore overseen by NAICOM. Insurtech products are provided on a minimal scale. Partnership between Financial Sector Deepening (FSD) Africa and NAICOM yielded the launch of Bimalab (an accelerator programme to address gaps in the insurance industry). Bimalab seeks to promote Insurtech startups to expedite development and use of digital solutions for the insurance sector.

### *Competition and consumer protection*

The Federal Competition and Consumer Protection Commission (FCCPC) advances fair competition and consumer protection in Nigeria and is mandated by the FCCPC Act, 2018. Fintechs that do not fall under banks or other financial institutions are under the purview of FCCPC on management of anti-competition issues.

#### i) South Africa

Just like in other jurisdictions, the fintech sector is on the rise in South Africa. The South African Reserve Bank (SARB) has taken cognisance of this development and its ability to disrupt financial service provision resulting from the innovations. Notable innovations have been registered in areas of crypto assets, online peer-to-peer platforms, insurtech, alternative digital payment platforms and central bank-issued digital currencies. Resulting and in a bid to pay close attention to this sector, the SARB has established a Fintech Unit within its ranks to explore the implications of fintech innovation for the SARB and financial services in South Africa in a structured, organised, and proactive manner<sup>32</sup>. The unit's tasks are three-fold: (a) responding to the fast-evolving ecosystem with agility, flexibility and speed by assessing the implications of the innovations on the policy and regulatory environment and support to align

---

<sup>31</sup> <https://ndpb.gov.ng/>

<sup>32</sup> <https://www.resbank.co.za/en/home/quick-links/fintech>



the policies and regulations to the emerging innovations (b) collect and analyse data to offer a deeper understanding and practical insight into the fintech, and (c) deliver innovation and collaboration initiatives such as project Khokha, financial markets innovation, crypto assets and stable coins, and open banking.

Another notable development of the fintech regulatory environment in South Africa is the establishment of the Intergovernmental Fintech Working Group (IFWG) created in 2016 as a platform to bring together regulators and help them gain deeper insights into fintech innovation. IFWG also aims at achieving a coordinated approach to policy making on financial services arising from fintech. The consortium comprises SARB which hosts the prudential authority and monetary systems regulator, the Financial Sector Conduct Authority (FSCA), Financial Intelligence Centre (FIC), and National Credit Regulator (NCR). The IFWG fulfils its mandate by engaging in public-private participatory discussions and publishing of position papers. The IFWG also has an Innovation Hub which consists of a regulatory guidance unit, a regulatory sandbox unit and the innovation accelerator. Regulation of the fintech sector is discussed as follows:

#### *Banking and payments*

The South African Reserve Bank (SARB) is the main regulator of banking and payment services. It fulfils the prudential requirements through the Prudential Authority (PA) established through the Financial Sector Regulation Act, 2017 (FSRA).

#### *Asset and wealth management*

The Financial Sector Conduct Authority (FSCA) regulates financial services in line with the provisions of the Financial Sector Regulation Act, 2017. This includes overseeing market conduct of financial service providers, insurers, funds and fund managers, asset management and/or investment advisory entities, retirement funds, stock exchanges, stockbrokers, central securities depositories, central securities depository participants and collective investment schemes, among others.

#### *Credit*



The National Credit Regulator (NCR) is guided by the National Credit Act, 2005 to regulate credit providers, credit bureaus and debt collectors.

#### *Anti-money laundering*

The Financial Intelligence Centre (FIC) is the main anti-money laundering regulator which is guided by the Financial Intelligence Centre Act, 2001 (FICA).

#### j) Egypt

In the quest to become a gateway to all fintech players in Egypt, the Arab World and Africa, Egypt established a Fintech Hub known as FinTech Egypt housed under the ambit of Central Bank of Egypt (CBE). The hub provides a unified platform to foster and connect all FinTech ecosystem stakeholders, including FinTech startups, financial institutions, regulators, service providers, mentors, and investors<sup>33</sup>. Fintech Egypt offers (a) a one stop-shop essential for collaboration, and networking for fintech driven start-ups, mentors, and financial institutions (b) technology driven-networking platform for all fintech stakeholders (c) access to fintech sandbox that acts as a virtual regulatory space for fintech startups. The CBE has collaborated with Financial Regulatory Authority (FRA) to establish rules and regulations defining the scope of fintech to include inter alia Robo-advisory, nano-finance, InsurTech, and (tech-enabled) consumer finance which creates regulatory certainty on what is being regulated then coming up with specific regulations (TheCityUK and PWC, 2022). Several institutions are tasked with enforcing fintech related laws and regulations as follows:

#### *Banking*

The Central Bank of Egypt (CBE) via law No. 88 of 2003 is mandated to inter alia license and regulate the banking sector including oversight of the payment systems. The CBE launched the FinTech and innovation integrated strategy in 2019 to promote Egypt's FinTech ecosystem. To ensure financial stability, consumer protection but also enhance innovation, CBE hosts a regulatory sandbox<sup>34</sup>. It also houses fintech hub (FinTech Egypt).

---

<sup>33</sup> <https://fintech-egypt.com/about-us/>

<sup>34</sup> <https://fintech.cbe.org.eg/home/sandbox?en>

*Telecommunication industry*

The Information Technology Industry Development Agency (ITIDA) and National Telecommunications Regulatory Authority (NTRA) provide regulation of the telecommunication industry. The ITIDA is guided by the E-signature Law No. 15 of 2004 to inter alia promote and develop the Egyptian information technology and communications industry, support small and medium-sized enterprises in using e-transactions and regulate e-signature services activities. The NTRA was established in accordance with Telecom Regulation Law No. 10 of 2003 to regulate and enhance telecommunication services.

*Non-banking financial services (NBFS)*

The Financial Regulatory Authority (FRA) is empowered by the Non-Financial Markets and Instruments Law No. 10 of 2009 to inter alia license non-banking financial activities and the protection of stakeholders within the non-banking financial market. The NTRA is empowered by the Fintech law to license NBFS who use fintech.

*Payments*

The National Payments Council (NPC) and CBE provide regulation of payments. The NPC is authorized by Presidential Decree No. 89 of 2017 to inter alia reduce the use of cash outside the banking sector, support and encourage the use of electronic methods and channels instead of cash and protect the consumers of any payment systems and services.

## k) Rwanda

The Rwanda Payment System Strategy (RPSS) 2018-2024 proposes the establishment of a fintech incubator/accelerator programs that nurture industry-wide fintech solutions. Subsequent to that, the National Bank of Rwanda (BNR) together with the Kigali International Financial Centre established a regulatory sandbox framework for both licensed and unlicensed entities. As a result, Rwanda provides a good model of a Central Bank regulator led sandboxes. In addition, the Rwanda Utilities Regulatory Authority (RURA) which provides regulation to certain public Utilities such as telecommunications network and/or Telecommunications services, electricity, water, removal of waste products from residential or business premises, extraction and distribution of gas and transport of goods and persons has established a



regulatory sandbox to allow for testing of ground-breaking products and services<sup>35</sup>. Rwanda has also followed a test and learn regulatory approach through a national-scale policy that encourages proactive regulation focused on collaboration and coordination. Different strategies providing policy direction include the Vision 2020 and 2050, and the National Strategy for Transformation.

### **3.1 Overview of case study findings**

In line with the review of case studies several salient regulatory practises are highlighted as follows.

#### **a) Regulatory led sandboxes**

Regulatory led sandboxes are becoming popular among several jurisdictions which makes it easier to test for fintech innovations under one roof alongside regulation of other financial services as seen in United Kingdom (FCA & PRA), Singapore (MAS), South Africa (IFWG), and Rwanda (BNR).

#### **b) Fintech hub/office**

Establishment of fintech hubs or offices which in some instances act as avenues for engagement with fintech providers/ stakeholders. They are also viewed as one stop entities and facilitators of whole of government approach towards fintech and innovation. Examples are enumerated in United Kingdom (Bank of England), United States of America (OCC), Australia (AUSTRAC), Mauritius (MAFH), Nigeria (SEC), and Egypt (Fintech Egypt).

#### **c) Specific fintech regulatory units (departments)**

Some regulatory regimes have established specific fintech regulatory units (departments) within the regulator of financial services to pay close attention to fintech innovation and its implications on the entire financial services sector. This includes Singapore (FTIG through MAS), India (RBI) and South Africa (SARB).

---

<sup>35</sup> The Fintech Landscape in Rwanda: Results of a UNCDF Study to Identify Its Current State, Challenges and Opportunities for Growth



d) Coordinated policy making approach

State and private sector collaboration in fintech regulatory regimes is becoming quite popular. This is advantageous due to the coordinated approach to policy making but also ensuring multi-stakeholder engagement. This has been well documented in India (NPCI), Australia (Fintech Australia), South Africa (IFWG) and Rwanda.

e) Regulatory support to startups

Regulatory support of new fintech entrants or startups is recognised in China (PBC) and Nigeria (Start-up marketplace).

f) Supportive fintech policy regime

Some fintech regimes are considered the most supportive considering the progressiveness in implementing fintech policy initiatives. This includes Australia, Singapore, and UK.

g) Other sandboxes – state level or private

Other forms of sandboxes are appreciated either as state level or private sector led initiatives. State level sandboxes are recognized in USA through States of Arizona, Florida, Nevada, Utah, West Virginia, and Wyoming. Private sandboxes are established in Nigeria (fintech industry innovative sandbox).

A summary of the discussed progressive regulatory practises is captured in form of a matrix (Table 3).

Table 3: Summary of progressive regulatory practises

Issue	Australi	China	Egypt	India	Mauriti	Nigeria	Rwanda	SA	Singapo	UK	USA
Regulatory led sandboxes							✓	✓	✓	✓	
Fintech hub/office	✓		✓		✓	✓				✓	✓



Specific fintech regulatory units (departments)				✓				✓	✓		
Coordinated policy making approach	✓			✓			✓	✓			
Regulatory support to startups		✓				✓					
Supportive fintech policy regime	✓								✓	✓	
Other sandboxes – state level or private			✓			✓		✓			✓

Source: Authors’ compilation, 2022

#### 4. CONCLUSIONS

This study sought to provide a review of the regulatory regime guiding fintech in Kenya and document lessons from countries that have made considerable strides in fintech regulation both at global and regional levels. In general, the findings of the study indicate that fintech offers solutions to a wide range of stakeholders from different sectors (cross-cutting). Case studies offer several regulatory lessons with policy implications. The following interventions can be considered to strengthen the policy and regulatory framework guiding fintech in Kenya:

- i. Adopt a coordinated approach to fintech policy making by ensuring multi-stakeholder participation drawing expertise both from public and private sectors. This will help deal with challenges of regulatory overlaps.
- ii. Establish a dedicated fintech hub / office / department to act as a point of reference in bringing together fintech ecosystem stakeholders (entrepreneurs, corporations, government agencies, tech experts, mentors, investors, financial service providers,





- universities, and research institutions) to spur cutting edge innovations but also ponder and explore on the implications of these innovations.
- iii. Consider Central Bank regulator led sandbox to promote fintech innovations and a responsive regulatory environment under one roof.
  - iv. Establish specific fintech regulatory unit (department) within the ambit of Central Bank of Kenya to pay close attention to fintech innovation and its regulatory implications on the entire financial services sector. It will also serve to provide coordination amongst fintech regulators and help reduce on conflict of jurisdiction.
  - v. Develop a national policy framework on fintech premised on a supportive regulatory regime and on creating an enabling ecosystem to spur innovation, create incentives and attract investments in the sector. The policy framework should also be targeted at underlining the role of the regulator(s) in fintech development.
  - vi. Seek to strike a regulatory balance between innovation, integrity of financial markets and consumer protection.
  - vii. The role of research institutions and universities in conducting and influencing research in development is acknowledged. This includes conducting cutting edge research that provide new approaches to fintech including those pertaining to regulatory sandboxes.

**CONFLICTS OF INTEREST AND PLAGIARISM:** The authors declare no conflict of interest and plagiarism.

## REFERENCES

1. CCAF, (2021). *FinTech Regulation in Sub-Saharan Africa*, Cambridge Centre for Alternative Finance at the University of Cambridge Judge Business School, Cambridge.
2. Central Bank of Kenya, (2013). “Prudential Guidelines”, Central Bank of Kenya, Nairobi.
3. Central Bank of Kenya, (2022-2025). “National Payment Strategy 2022-2025”, Central Bank of Kenya, Nairobi.
4. Chang, V., Baudier, P., Zhang, H., Xu, Q., Zhang, J. & Arami, M. (2020). How Blockchain can impact financial services – The overview, challenges and



- recommendations from expert interviewees. *Technological Forecasting and Social Change* 158.
5. Fonté, E. F., Kimpel, S. H., and Goss, C. (2022). The Financial Technology Law Review: USA. Available at: <https://thelawreviews.co.uk/title/the-financial-technology-law-review/usa>
  6. Gomber, P., Kauffman, R.J., Parker, C., & Weber, B.W. (2018). On the Fintech revolution: interpreting the forces of innovation, disruption, and transformation in financial services. *Journal of Management Information Systems* 35 (1), 220–265.
  7. Government of Kenya (2007). Kenya Vision 2030. Nairobi: Ministry of Planning and National Development and the National Economic and Social Council.
  8. Government of Kenya (2018). Third medium-term plan 2018-2022. Nairobi: The National Treasury and Planning.
  9. IMF (2019). Fintech: Implications for the regulation and supervision of the financial sector, IMF Country Report No. 19/229, Washington, D.C.
  10. Kalifa, R. (2021). *Review of FinTech*. Available at <https://www.gov.uk/government/publications/the-kalifa-review-of-uk-fintech>
  11. Kenshall, S. (2022). The Financial Technology Law Review: United Kingdom. Available at: <https://thelawreviews.co.uk/title/the-financial-technology-law-review/united-kingdom>
  12. Knight, B. (2016). FinTech: who regulates it and why it matters. Milken Institute, Center for Financial Markets.
  13. Lee, I. & Shin, Y.J. (2018). Fintech: ecosystem, business models, investment decisions, and challenges. *Business Horizons* 61 (1), 35–46.
  14. Marr, B. (2017). The Complete Beginner's Guide To FinTech Everyone Can Understand. *Forbes* February 10. <https://www.forbes.com/sites/bernardmarr/2017/02/10/a-complete-beginners-guide-to-fintech-in-2017>.
  15. Musamali, R., Jugurnath, B., & Maalu, J. (2023). FINTECH IN KENYA: A POLICY AND REGULATORY PERSPECTIVE. *JOURNAL OF SMART ECONOMIC GROWTH*, 8(1), 21-53.



16. Panetta, F. (2018). Fintech and Banking - Today and Tomorrow. Speech delivered at the Harvard Law School Bicentennial Annual Reunion of the Harvard Law School Association of Europe, Rome, 12 May, p. 9–10. <https://www.bis.org/review/r180515d.htm> (accessed 14 July 2019).
17. PEI, Sai Fan. Singapore approach to develop and regulate FinTech. (2018). *Handbook of blockchain, digital finance, and inclusion: Cryptocurrency, FinTech, InsurTech, and regulation*. 1, 347-357. Research Collection Lee Kong Chian School of Business.
18. Rosavina, M., Rahadi, R.A., Kitri, M.L., Nuraeni, S., & Mayangsari, L. (2019). P2P lending adoption by SMEs in Indonesia. *Qualitative Research in Financial Markets* 11 (2), 260–279.
19. Sangwan, V., Harshita, Prakash, P., & Singh, S. (2020). Financial technology: a review of extant literature. *Studies in Economics and Finance* 37 (1), 71–88.
20. Schueffel, P. (2016). Taming the beast: a scientific definition of Fintech. *Journal of Innovation Management* 4 (4), 32–54.
21. TheCityUK and PWC (2022). FinTech in Kenya: Towards an enhanced policy and regulatory framework.
22. U.N (2016). *Transforming our world: The 2030 Agenda for Sustainable Development*. New York: United Nations.
23. Vinod J., Deeya R., and Protiti B. (2020). Fintech Laws in India – A primer, Argus Partners Solicitors and Advocates.
24. Wang, H., Chen, K., Zhu, W. and Song, Z. (2015), “A process model on P2P lending”, *Financial Innovation*, Vol. 1 (1) 3.
25. World Bank Group (2020). “*Global Experiences from Regulatory Sandboxes*”, <http://documents1.worldbank.org/curated/en/912001605241080935/pdf/Global-Experiences-from-Regulatory-Sandboxes.pdf>
26. World Bank Group (2021). Global Findex Database, 2021.