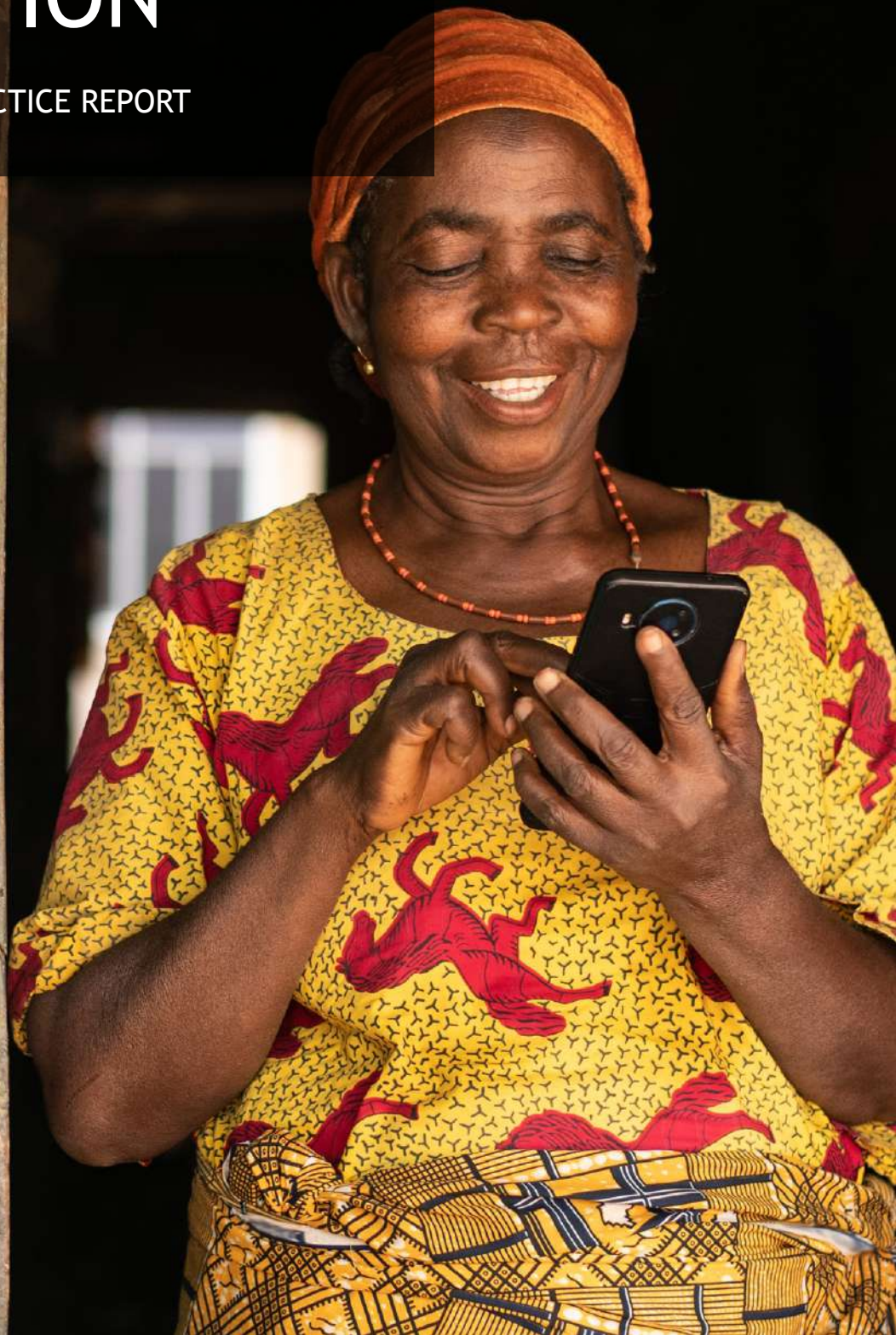




DIGITAL FINANCIAL SERVICES  
(DFS) WORKING GROUP

# DIGITAL FINANCIAL SERVICES REGULATION

CURRENT STATE OF PRACTICE REPORT



SPECIAL REPORT

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## ACKNOWLEDGMENTS

This special report is a product of the Digital Financial Services Working Group (DFSWG) and its members.

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## EXECUTIVE SUMMARY

In the past few years, the world has seen an unprecedented rate of digital transformation. This has brought about tremendous and positive changes, and to ensure that this change continues, it is imperative that regulators have the necessary tools to keep up with the rapid pace of innovation. Furthermore, the COVID-19 pandemic has underscored the need for more robust digital systems across every economic sector.

Regulations have played a key role in advancing digital financial inclusion. And both regulators and financial supervisors within the AFI network are at various stages of implementing enabling regulations for digital financial services. This is due to a range of reasons, such as the stage of evolution of digital financial services (DFS), regulatory capacity, or resources, among others.

This special report aims to conduct a scoping exercise to help members identify and work towards addressing any potential regulatory gaps at the country and regional levels. Further, this will help AFI in identifying key topics and designing services that support members in creating an enabling DFS regulatory ecosystem.

A database of regulatory indicators relevant to digital financial inclusion was first populated through a comprehensive effort involving desk research drawn from a wide range of publicly available secondary sources. The database focuses on 33 different DFS regulatory indicators, specifying if countries have relevant laws, regulations, or institutions in general, and in some cases the content of particular policy choices.

Overall, the most frequently addressed DFS regulations amongst AFI member countries are e-money (96 percent), consumer protection (95 percent), and branchless banking (88 percent).

The formalization of directives and guidelines supporting means of payment is a subject that has been widely tackled by members of the AFI network, as seen in Figure 1. Indeed, 97 percent of member countries have developed or are in the drafting phase of a ratified Payment Systems Act or a law of payment systems.

1 Full interoperability is defined in the context of this report as the ability to transfer money to or from any e-money wallet to another as well as to or from any bank account.

FIGURE 1: KEY FINDINGS ON DIGITAL FINANCIAL SERVICES REGULATIONS WITHIN THE AFI NETWORK (N=81)

OF THE AFI MEMBER COUNTRIES INCLUDED IN THE STUDY



96%

have e-money regulations with 86 percent permitting non-banks to issue e-money.



88%

have agent banking regulations.



36%

have initiatives related to open finance.



28%

have digital bank regulations.



23%

have cryptocurrency regulations while seven percent have a policy under study.

85%

Interoperability, guaranteeing a general interconnection of payment systems, is addressed by 85 percent of member countries with either full or partial interoperability.<sup>1</sup> As for fast payment systems, only 24 percent do not have one, while 76 percent have at least one in place.

We focus on three money-related themes: electronic money (e-money), widely addressed in AFI member regulations; central bank digital currencies (CBDCs), currently under study by more than half of the AFI member countries; and cryptocurrency, which is just beginning to gain recognition.

The results of our analysis show that although there are regulations on broader aspects of digital financial services (e-money, payment systems, etc.), product specific rules and regulations are still evolving (Figure 2).

In the area of digital identity and personal data, the key topics addressed within the report are eKYC, tiered KYC, digital identification, data privacy, cybersecurity, supervisory technology (suptech) or regulatory technology (regtech), and the collection of gender-

disaggregated data. Regulations in this domain are common among the majority of AFI Member countries as shown in Figure 3.

As usage and updates of digital financial services increase, consumer protection and market conduct related risks become more pertinent. The broad elements of consumer protection policy, including consumer protection for digital financial services, price disclosure, the provision of means of recourse, and deposit insurance protection for banks and non-banks, are all related to the regulation of digital financial services and are widely implemented in AFI countries, see Figure 4.

Overall, the findings of this study confirm the interest and commitment of AFI member institutions to continue strengthening their financial inclusion journey through the development and implementation of DFS policies and regulations.

FIGURE 2: KEY FINDINGS ON DFS PRODUCTS AND CHANNEL SPECIFIC REGULATIONS WITHIN THE AFI NETWORK

OF THE AFI MEMBER COUNTRIES INCLUDED IN THE STUDY



60%

have at least one NBFi license to do **digital cross-border financial transfers** or regulations explicitly allowing such transfers.



49%

have a regulation in place related to **QR codes**.



37%

have **digital credit** regulations.



32%

have **digital insurance** regulations.

FIGURE 3: KEY FINDINGS OF DIGITAL IDENTITY AND PERSONAL DATA REGULATIONS IN THE AFI NETWORK

OF THE AFI MEMBER COUNTRIES INCLUDED IN THE STUDY



78%

have specific security requirements related to DFS cybersecurity regulations.



61%

have regtech/supotech solutions in place.



77%

have data privacy regulations.



55%

enable electronic Know Your Customer / Consumer Due Diligence service (e-KYC), and 75 percent allow simplified/tiered KYC for all financial institutions.



55%

are collecting gender-disaggregated data.



46%

have specific provisions in place for digital ID.

FIGURE 4: KEY FINDINGS OF DIGITAL IDENTITY AND PERSONAL DATA REGULATIONS IN THE AFI NETWORK

95%

of AFI member countries have regulations addressing consumer protection (including drafts)...

...with 83 percent addressing specifically digital financial services.

92%

of AFI member countries have regulations requiring price disclosure (including drafts).

63%

Have regulations requiring access to recourse (including drafts)

84%

of AFI member countries have regulations requiring deposit insurance protection for banks (including drafts)...

...while 45 percent requires it for non-banks.

# CONTEXT

The Alliance for Financial Inclusion (AFI) is the world's leading organization on financial inclusion policy and regulation. The AFI network is made up of central banks, ministries of finance, and other financial policymaking or regulatory institutions from more than 80 countries.

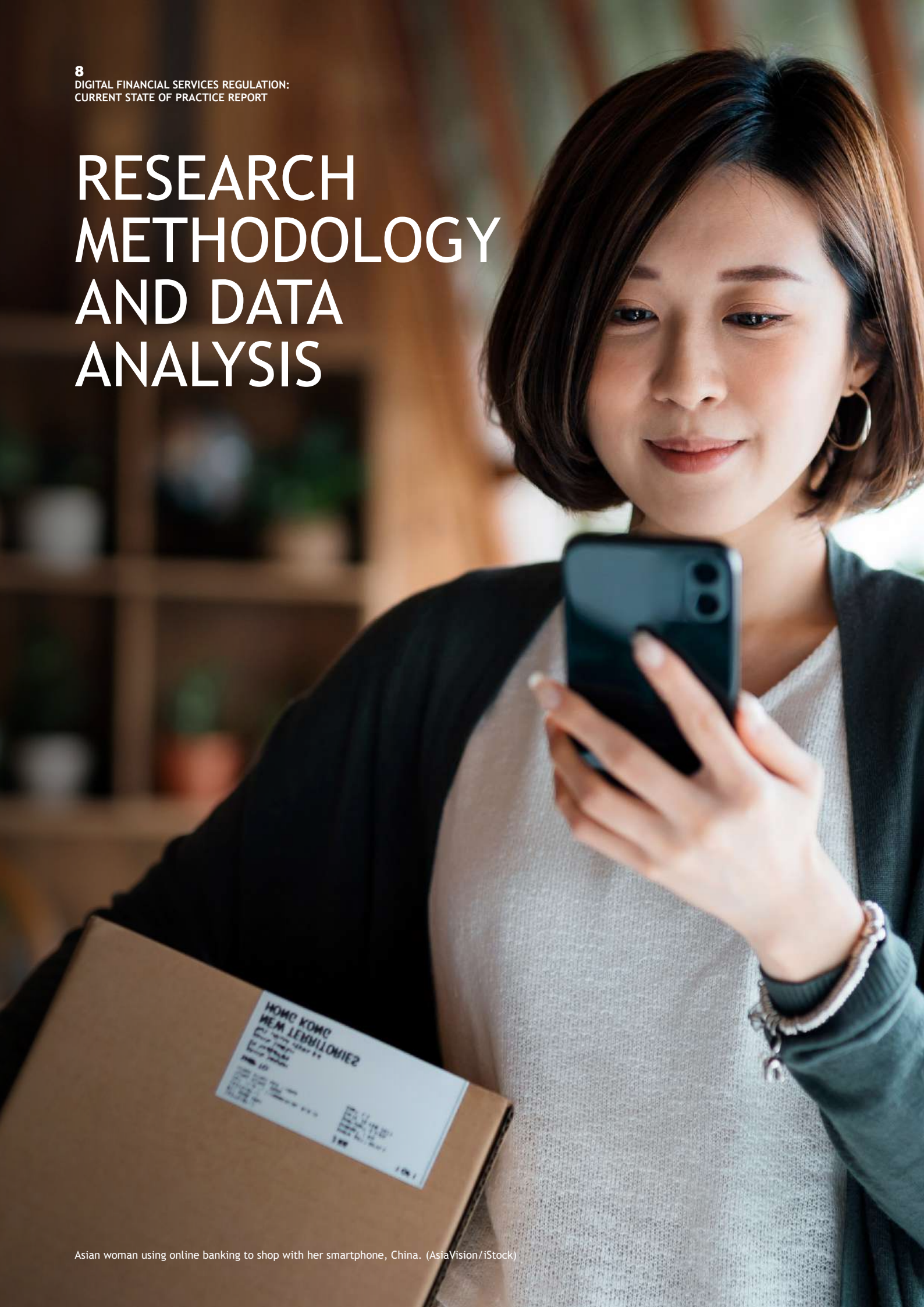
AFI has established seven working groups (WGs) that serve as “communities of practice” for members to explore the specific but interconnected issues of financial inclusion. Through the Digital Financial Services Working Group (DFS WG), AFI provides a platform for capturing, tracking, and sharing information on innovative digital financial services, products, business models and appropriate new policy responses. The DFSWG establishes linkages and provides inputs, where appropriate, to global standard-setting bodies (SSBs) seeking to establish proportionate supervisory approaches.

The working group generates knowledge used to strengthen the capacities of ecosystem actors through the publication of toolkits and policy models. This report on the current state of practice of the regulation of digital financial services (DFS) falls within this framework.

This DFS regulatory state of practice report views the status of 81 AFI member countries through the spectrum of five distinct pillars comprised of 33 relevant DFS regulatory indicators, resulting in a total of 2,706 indicator questions. These indicators aim to capture, as far as possible, priority and relevant regulatory topics associated with DFS in AFI member countries. Key policy lessons and regulatory gaps from the research are meant to inform AFI member countries in their designs of policy instruments that will promote digital financial inclusion.



# RESEARCH METHODOLOGY AND DATA ANALYSIS





The database was first populated through comprehensive desk research drawing on a wide range of publicly available secondary sources. This includes the laws, regulations, and information available on AFI member websites; reports from international institutions; newspaper articles; and other sufficiently reliable secondary sources.

These country-specific findings were compiled and shared with each central bank or AFI member country counterpart for their review and validation. This process resulted in a high degree of data completeness (Figure 5). Specifically, 2,214 out of 2,706, or 81.8 percent of the data points were answered. On a country basis, 54 member countries validated the data, while 27 had not yet confirmed the status of their regulations prior to publication.

Data was analyzed focusing on each of the 33 indicators, looking at the number of countries with or without relevant laws, regulations, or institutions in general, and in some cases, the content of particular policy choices. For example, indicator 2.1 counts the number of AFI member countries that have ratified a Payment Systems Act or a law of payment systems, allowing for three options: “yes”, “no”, or in “draft”.

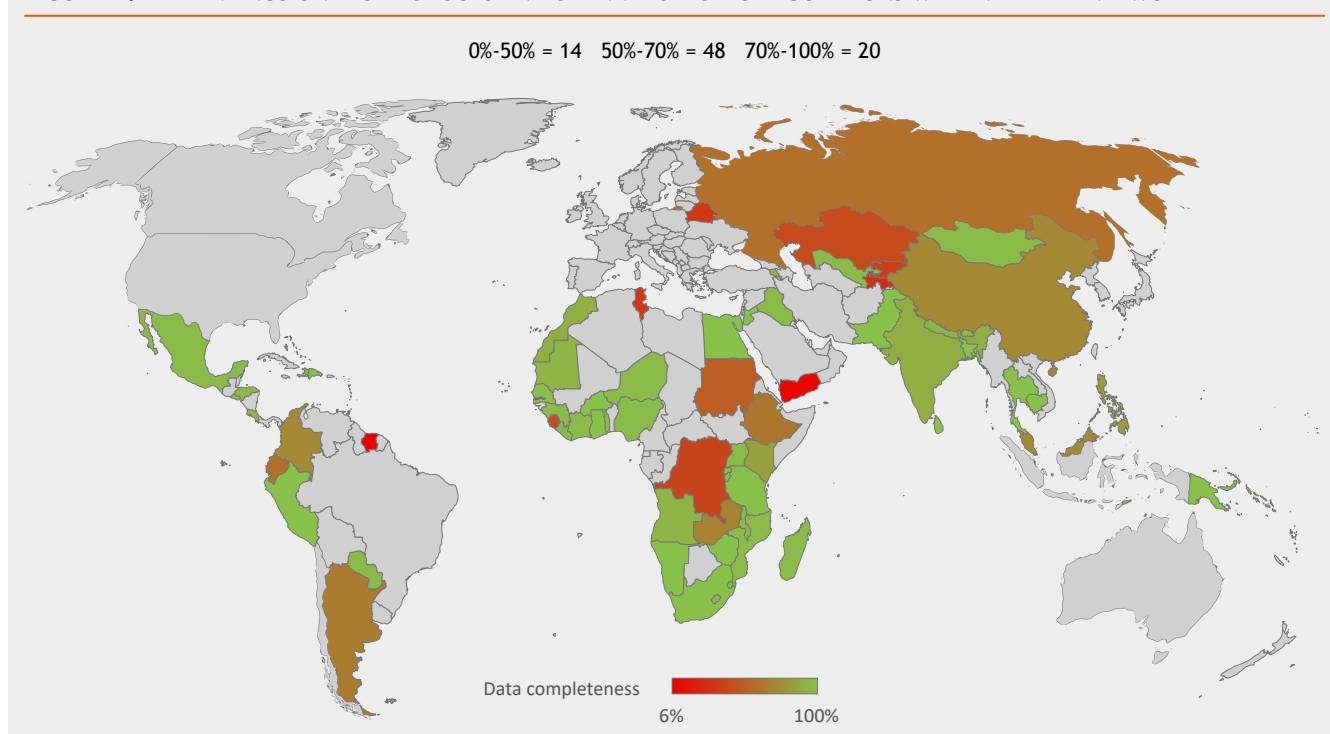
Indicator 3.5, meanwhile, looks at the content of regulatory action taken related to cryptocurrencies, allowing for five options: “banned”, “general consumer awareness raising”, “no action”, “under study”, and “regulated.”

These results were then compared on a regional basis, focusing on six AFI regions: Asia, Eastern Europe and Central Asia (EECA), Latin America and the Caribbean (LAC), Middle East and North Africa (MENA), the Pacific, and Sub-Saharan Africa (SSA). Some of the regions were combined when data for specific indicators was inadequate or unavailable, making it difficult to conduct a regional analysis. The results are presented only when notable differences exist.

Finally, indicator outcomes were analyzed in the context of financial inclusion, using data from the 2021 Global Findex Database. The Findex database covers 66 of the 81 countries in our sample, which may have affected results. The results are presented only when notable differences exist.

2 The central indicator used as a proxy for financial inclusion is the percentage of respondents who report having an account (their own or together with someone else) at a bank or another type of financial institution or report personally using a mobile money service in the past year (Findex, 2022). Several other Findex indicators related to, for example, financial product usage, access, and gender were used to analyze data from related indicators where relevant.

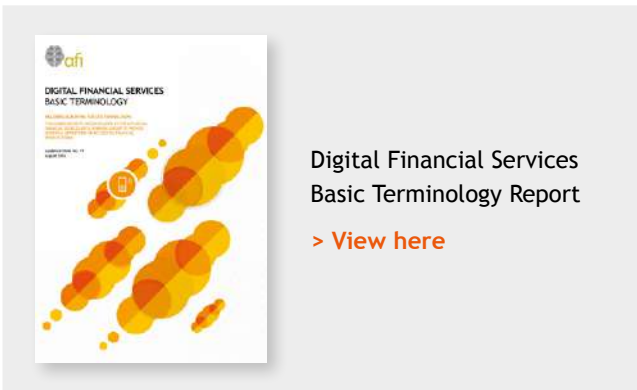
FIGURE 5: KEY FINDINGS ON DFS PRODUCTS AND CHANNEL SPECIFIC REGULATIONS WITHIN THE AFI NETWORK



# OVERVIEW OF KEY CONCEPTS AND DEFINITIONS



This report covers a wide breadth of DFS-related topics, and it is important that the various terms are commonly understood. The definitions presented in this chapter, and used throughout the report, were largely derived from basic terminology in the AFI Guideline Note on digital financial services. Other terms have been defined based on internationally accepted definitions as referenced.



### AGENT

Any third party acting on behalf of a bank, financial institution, or non-bank institution (including an e-money issuer or other payment services provider) to deal directly with customers, under contractual agreement. The term “agent” is commonly used even if a principal agent relationship does not exist under the regulatory framework in place.

### ANTI-MONEY LAUNDERING, COMBATING THE FINANCING OF TERRORISM & COUNTERING PROLIFERATION FINANCING (AML/CFT AND CPF)

Controls that, when effectively implemented, mitigate the adverse effects of criminal economic activity and promote integrity and stability in financial markets.<sup>3</sup>

### CENTRAL BANK DIGITAL CURRENCIES (CBDC)

A digital payment instrument, denominated in the national unit of account, that is a direct liability of the central bank.<sup>4</sup>

### CYBERSECURITY

The protection of digital assets from harmful events such as human and technical errors, unauthorized internal users, and malicious external individuals or organizations.

### CRYPTOCURRENCY

Consist of a set of computer codes specifying how participants can transact, a ledger storing the history of transactions, and a decentralized network of participants that update, store, and read the ledger of transactions following the rules of the protocol.<sup>5</sup>

### DIGITAL BANK

A regulated financial institution that delivers a wide range of banking products and services, mostly through virtual means.<sup>6</sup>

### DIGITAL BANKING

The provision of banking products and services, including electronic payments, through electronic channels.

### DIGITAL FINANCIAL SERVICES (DFS)

A broad range of financial services accessed and delivered through digital channels, including payments, credit, savings, remittances, and insurance. The concept of digital financial services (DFS) includes mobile financial services (MFS).

### ELECTRONIC MONEY (E-MONEY)

A type of electronic money (e-money) that is transferred electronically using mobile networks and SIM-enabled devices, primarily mobile phones.

### eKYC

The process of electronically verifying customer credentials in line with KYC processes of a country with respect to risk-based approaches.

### FAST PAYMENT SYSTEM

A payment system which is operational 24/7 and makes money transfers available to a payee (virtually) immediately after the transfer is made.

### INCLUSIVE FINTECH

The use of technology and innovative business models in the provision of financial services to advance financial inclusion. The term is a contraction of “financial technology”.

<sup>3</sup> Available at: <https://www.imf.org/external/np/leg/amlcft/eng/>

<sup>4</sup> Bank for International Settlements. 2018. Available at: <https://www.bis.org/cpmi/publ/d174.pdf>

<sup>5</sup> Bank for International Settlements. 2018. Available at: <https://www.bis.org/publ/arpdf/ar2018e5.pdf>; some other terms also used - e.g. FATF uses the term ‘virtual assets’.

<sup>6</sup> Alliance for Financial Inclusion. 2021. Available at: [https://www.afi-global.org/wp-content/uploads/2021/11/DFSWG-framework\\_FINAL.pdf](https://www.afi-global.org/wp-content/uploads/2021/11/DFSWG-framework_FINAL.pdf)

**INNOVATION HUB**

Also known as “innovation offices”, “innovation labs”, “FinTech labs”, and “task forces”. They are portals or other mechanisms which enable firms to engage with competent authorities on FinTech-related regulatory issues and seek guidance on the conformity of innovative financial products and services with regulatory requirements.<sup>7</sup>

**INTEROPERABILITY**

Enabling payment instruments belonging to a particular scheme or business model to be used or interoperated between other schemes or business models. Interoperability requires technical compatibility between systems and can only take effect once commercial interconnectivity agreements have been concluded.

**KNOW YOUR CUSTOMER (KYC)/CUSTOMER DUE DILIGENCE (CDD)**

A set of due diligence measures undertaken by a financial institution, including policies and procedures, to verify the identity a customer and monitor account usage for potential suspicious activities. KYC is a key component of AML/CFT regimes. Simplified due diligence, such as tiered KYC, can be applied in cases of assessed lower ML/TF risk, and is often critical for positive financial inclusion outcomes.

**OPEN FINANCE**

Refers to the use of open APIs that enable third-party developers to build applications and services around the financial institution. In an open finance ecosystem, customers may choose to share specific data with third-party providers in order to access an enhanced range of financial services, or the use of open-source software to achieve these goals.

**REGULATORY SANDBOX**

Allows innovative products to be tested within controlled environments without being subject to full licensing and regulatory requirements. Such experiments can sometimes lead to new or amended regulations based on the obtained evidence.

**SELF-REGULATION**

The delegation of regulation and supervision to a sector organization.

**SUPERVISORY TECHNOLOGY (SUPTECH)**

The use of technology to facilitate and enhance supervisory processes from the perspective of supervisory authorities.<sup>8</sup>

**TIERED KYC**

Consists of applying differential account opening requirements according to the assessed level of risk, in line with the risk-based approach advocated by the Financial Action Task Force (FATF). Simplified KYC requirements may be applied to lower risk products, for example, basic accounts with specified transactional limits.

**QUICK-RESPONSE CODE (QR CODE)**

A two-dimensional barcode, which consists of black modules appearing in a white square. The QR code allows for quick decoding via a barcode reader device.

7 Alliance for Financial Inclusion. 2021. Available at: [https://www.afi-global.org/wp-content/uploads/2021/04/AFI\\_DFSWG\\_AW\\_Innovative-Regulatory-Approaches.pdf](https://www.afi-global.org/wp-content/uploads/2021/04/AFI_DFSWG_AW_Innovative-Regulatory-Approaches.pdf)

8 World Bank 2020. Available at: <https://documents1.worldbank.org/curated/en/108411602047902677/pdf/A-Roadmap-to-SupTech-Solutions-for-Low-Income-IDA-Countries.pdf>

# CURRENT STATE OF PRACTICE ON THE FORMULATION OF DIGITAL FINANCIAL SERVICES REGULATIONS



Village phones west of Kampala, Uganda. (Charles Sturge/Alamy Stock Photo)

The impact of DFS on the evolution of financial inclusion is well-established. Just like the DFS ecosystem, the associated legal and regulatory systems and approaches are continually evolving due to innovations in technology, business models, and risks. Understanding the five pillars that constitute the foundation of DFS regulations is necessary to properly take stock of the general regulatory framework.

This report is a living document. The pillars and related indicators will, therefore, evolve with the evolution of the DFS ecosystem.

The analytical framework used in this report was developed by taking a step-by-step value chain approach. The first stage consisted of identifying the key indicators that characterize enabling DFS policies and regulations. The indicators were then clustered under five thematic pillars to structure the analysis. The five pillars, therefore, represent the highest level of the analytical framework, with the various relevant indicators feeding into the framework for analysis: the first pillar looks at the broader ecosystem; the second focuses on the infrastructure aspects; the third talks about use cases; while the fourth and the fifth pillars group together the enablers for the infrastructure and use cases by focusing on the quality and use of financial

services. The detail of each pillar is developed in the subsequent sections of this report.

The table below provides an aggregated pillar-level view of availability (or lack thereof) of DFS regulations across the AFI network and beyond. Most regulators have the essential DFS regulatory enablers such as payment systems, e-money, and branchless banking regulations in place and are working towards developing retail payments and related digital infrastructure. It is evident in the fact that - at 71 percent - members have the highest number of regulations in place under the digital payment infrastructure pillar.

The regulations in place for the digital finance and innovations pillar, however, are relatively lower at 27 percent. This is because although topics such as open finance, digital banking, CBDCs, and digital assets, among others, are rapidly evolving, they do not seem large enough to pose a risk from a financial stability and financial inclusion perspective. As such, regulators seem to be taking a “wait and watch” approach.

The comprehensive research and harmonized analytical framework of this report aim to shed light on how AFI members have addressed these pillars in their DFS regulatory frameworks, what effect they may have had on promoting financial inclusion, and to see what lessons can be learned from their experience.

FIGURE 6: PILLAR LEVEL COMPARISON, %

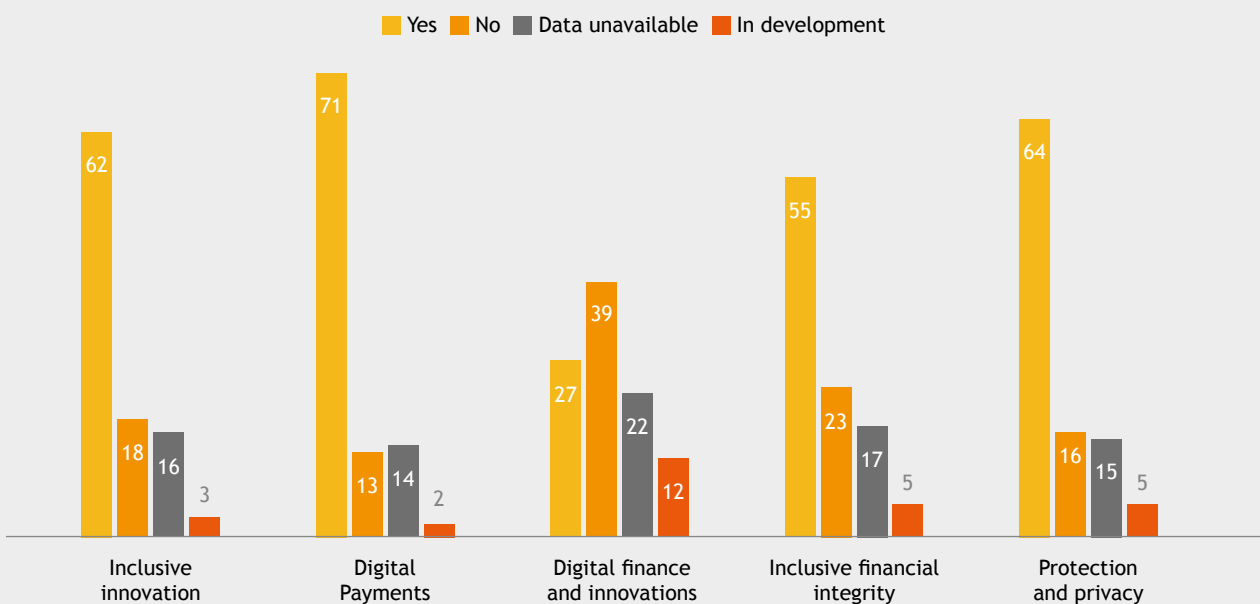


FIGURE 7 AND 8: THE FIVE PILLARS FOR DFS REGULATION ANALYSIS AND FRAMEWORK FOR ANALYSIS: PILLARS AND INDICATORS

## INCLUSIVE INNOVATION

- > Ecosystem level
  - Financial inclusion, DFS, and Fintech strategy
  - Industry associations and Self-regulatory organizations
- > Institutional level
  - Innovation facilities
  - Other industry mechanisms
  - Regulatory cooperation
- > Regulatory principles
  - Interoperability
  - Gender-oriented DFS policies



## DIGITAL PAYMENTS

- > Payment systems
  - Fast payment systems
- > e-money
- > Branchless banking regulations
- > QR codes



## DIGITAL FINANCE AND INNOVATIONS

- > Digital products
- > Digital banks
- > Open finance
- > Central bank digital currencies
- > Cryptocurrencies



## INCLUSIVE FINANCIAL INTEGRITY

- > Digital identity
  - eKYC
    - Tiered KYC (incl. eKYC)
- > AML/CFT



## PROTECTION AND PRIVACY

- > Consumer protection
  - Price disclosures
  - Protection of consumer funds
  - Complaint handling
- > Cybersecurity
- > Data Privacy
- > Supervisory technology



# PILLAR 1 INCLUSIVE INNOVATION

The promotion of innovation with structured oversight and support can be a catalyst for inclusive market development.

It is important to have champions at the highest levels of government, such as the president, prime minister and other ministers concerned, as the primary ambassadors of this vision. Another component is the need for close alignment between the government and regulators on a broader vision and execution strategy.

Pillar 1 reveals how AFI member countries promote financial inclusion innovation at the ecosystem level as well as at the more granular institutional level and looks at important overarching regulatory principles, as outlined in Figure 7 and 8.

## 1.1 ECOSYSTEM LEVEL

### 1.1.1 DIGITAL TRANSFORMATION STRATEGY, FINTECH STRATEGY, DFS STRATEGY, AND FINANCIAL INCLUSION STRATEGY

Explicit and holistic strategies can guide the structural transformation. Indeed, whether it concerns digital transformation, DFS, or inclusive FinTech, their optimal development requires addressing prerequisites: a strategic framework and a favorable political and regulatory environment to support digitalization.

As of June 2022, 73 percent of AFI member countries (58 out of 81) had either a standalone National Financial Inclusion Strategy (NFIS) or a financial inclusion strategy embedded in their broader national development strategy. Sixteen other AFI member countries are in the process of pre-formulating or formulating their NFIS.

Most of the recently developed NFIS - launched after 2018 - have incorporated DFS (93 percent) and consumer protection (96 percent) as key policy areas. Almost all countries address the need for financial literacy (93 percent), the gender financial inclusion gap (86 percent), and (M)SME finance (79 percent). The financial needs of youth (50 percent), green finance (18 percent), and forcibly displaced populations (18 percent) remain key policy areas addressed by a minority of member countries that have launched an NFIS since 2018 as responses to the economic, political, environmental, or health-related challenges of each AFI member country.<sup>9</sup>

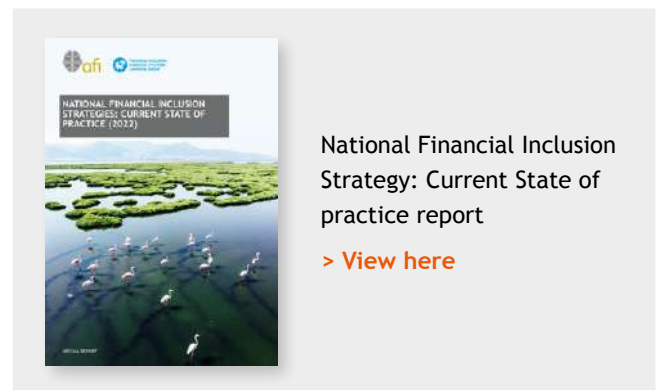


FIGURE 9: PILLAR 1: INCLUSIVE INNOVATION





FIGURE 10: AFI MEMBERS WITH A NATIONAL FINANCIAL INCLUSION STRATEGY (NFIS) (N=81)

■ In formulation (16) ■ Yes (58) ■ No (5) ■ No or inadequate data (3) ■ Non-AFI members

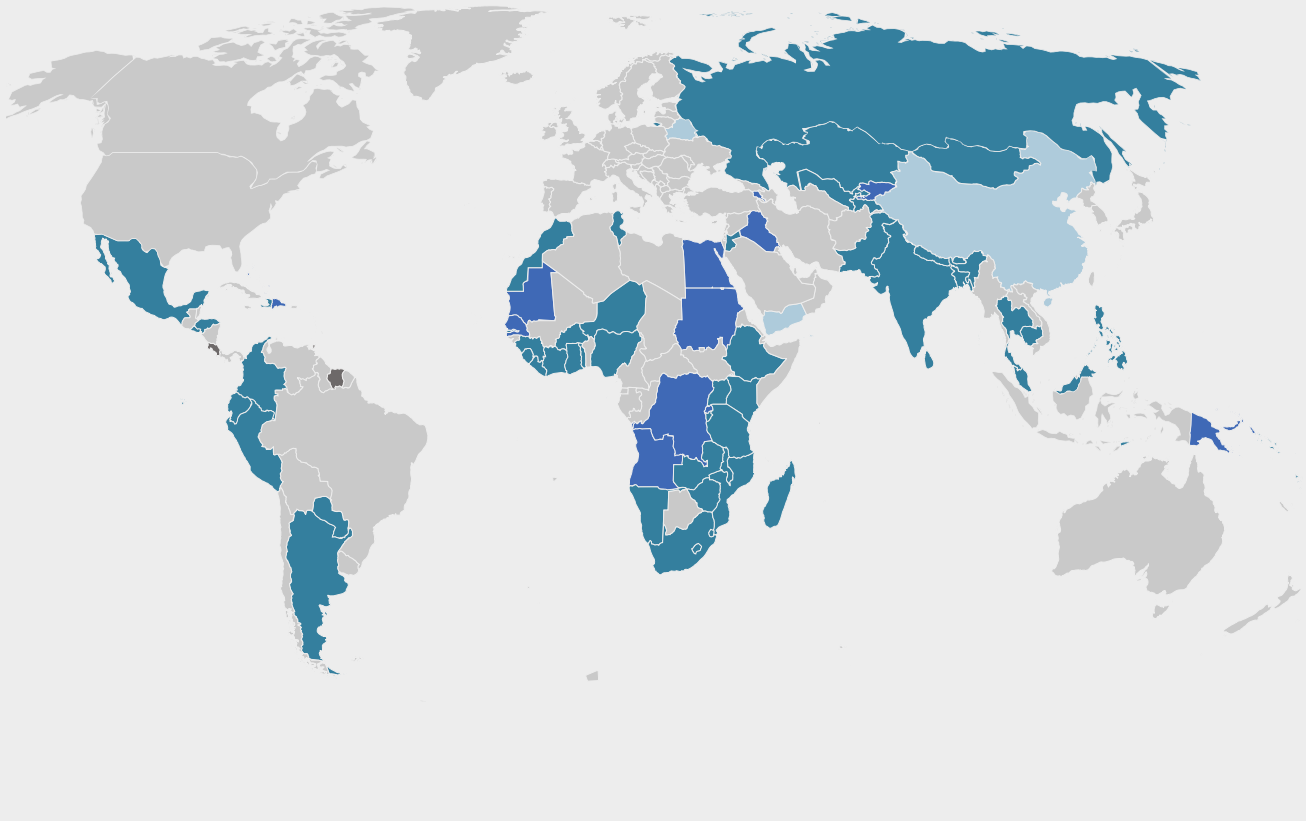
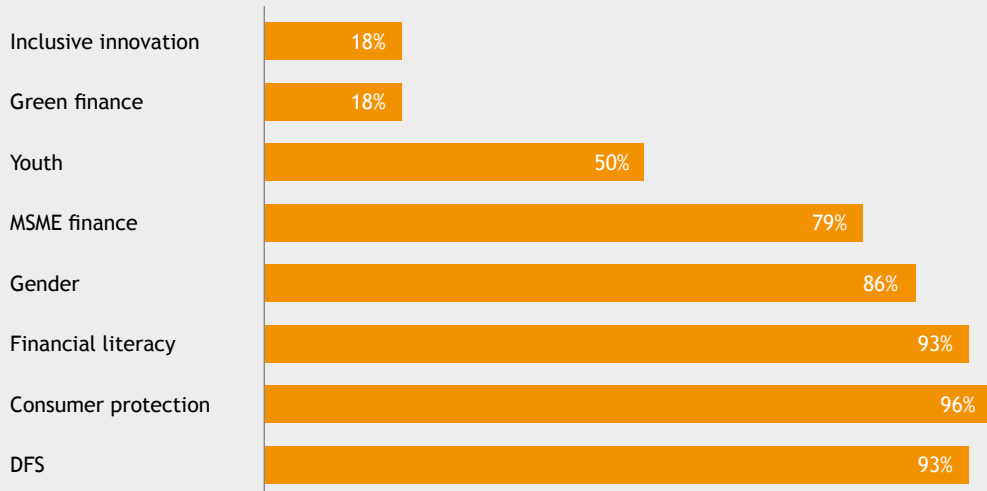


FIGURE 11: KEY POLICY AREAS IN NFIS



**BOX #1: TARGETED SEGMENTS AND STRATEGIC AXIS OF DIGITAL FINANCIAL INCLUSION IN MOROCCO**

**Targeted segments**

Morocco's NFIS addresses several facets of the problems facing underserved or excluded populations, namely rural populations, young people under 25, women, and micro enterprises.

**Strategic axes**

To realize its ambitions, the NFIS defines eight strategic levers which are based on five orientations.

**STRATEGIC ORIENTATION 1**

- 1. Successful deployment of mobile payments
- 2. Overhauling the status of microfinance to make it a stronger lever of inclusion
- 3. Define and accelerate development



**STRATEGIC ORIENTATION 2**

- 4. Create the conditions that accelerate financial inclusion by banks



**STRATEGIC ORIENTATION 3**

- 5. Set up a framework and tools facilitating the financing of very small enterprises (VSEs)



**STRATEGIC ORIENTATION 4**

- 6. Accelerate the digitalization of payments
- 7. Strengthen and coordinate financial education actions)




**STRATEGIC ORIENTATION 5**

- 8. Set up a steering mechanism and governance dedicated to financial inclusion

Levers of the National Financial Inclusion Strategy


Source: Bank Al-Maghrib 2019. Available at: <https://www.finances.gov.ma/Publication/dtfe/2020/rapportannuel-SNIF2019.pdf>

Countries are taking steps to support innovation through DFS and inclusive FinTech regulation and supervision to further promote financial inclusion. State and regulatory bodies are gradually progressing towards the regulation of FinTech activities such as digital payments, crowdfunding, digital credit, and savings with the goal of facilitating innovation while preserving financial stability. AFI has emphasized the importance FinTech has played in driving financial inclusion in two of its reports:



FinTech for Financial Inclusion: A Framework for Digital Financial Transformation

> [View here](#)



Creating Enabling FinTech Ecosystems: The Role of Regulators.

> [View here](#)

In Colombia, a FinTech subcommittee has been set up to monitor related issues as part of the implementation of the National Financial Inclusion Strategy. According to the International Monetary Fund (IMF) in their FinTech and Financial inclusion in Latin America and the Caribbean Working Paper, the Dominican Republic is working towards promoting a rich and innovative industry.

The IMF states that

“ The Dominican Republic’s regulatory framework, specific to FinTech, is concentrated in payments activities and cyber risk regulations, informed by one-on-one meetings with industry participants, to study the proper delivery of future regulatory enhancements

”

**BOX #2: THE REGULATORY APPROACH  
FOR INCLUSIVE FINTECH IN THE  
DOMINICAN REPUBLIC****FinTech strategy and policies**

FinTech development directives are embedded within the framework of the Financial Inclusion Strategy 2018. This was revised by the central bank in 2020 with technical assistance from the Inter-American Development Bank (IDB).

**Key objectives**

- > Financial system stability
- > Payment system efficiency and security
- > Business model and product innovation
- > Financial inclusion and inclusive growth

**Activities covered**

- > Digital payments
- > Insurance
- > Financing
- > Financial management
- > Forex trading

**Regulatory framework**

The amendment of the Payment Systems Regulation in 2019 proposed a framework to regulate FinTech companies operating in digital payments.

**Measures of success**

- > More diverse pool of payment providers
- > Lower transaction fees
- > Broader access to payment infrastructure

Source: International Monetary Fund. 2021. Available at: <https://www.findevgateway.org/sites/default/files/publications/2021/IMF%20publication%20>

Kenya's policies have generally been cautiously receptive to technological advances, though the Central Bank of Kenya and the Communications Authority of Kenya have established a regulatory framework. This sort of regulatory cooperation is further discussed in section 1.2.2 of this report. The Cambridge Centre for Alternative Finance qualifies Kenya as an "early adopter of regulatory sandboxes and innovation offices within the African region."

10 Central Bank of Kenya December. 2020. Available at: <https://www.centralbank.go.ke/wp-content/uploads/2020/12/CBK-NPS-Vision-and-Strategy.pdf>

**BOX #3: THE REGULATORY APPROACH  
TO INCLUSIVE FINTECH IN KENYA****Regulatory bodies**

The FinTech industry is governed by:

- > The Central Bank of Kenya
- > The Ministry of Information, Communications, and Technology
- > The Capital Markets Authority
- > The Competition Authority

**FinTech policies and strategy**

Although there are no sector-specific FinTech regulations, the National Payment Systems Act (2011) provides for oversight of all payment service providers, including mobile phone service providers, under one regulatory framework.

Other laws and regulations that govern the provision of financial services by FinTechs:

- > The Kenya Information and Communications Act provides oversight for the Communications Authority of Kenya as well as a framework to regulate the information, communications, media, and broadcasting subsectors.
- > The Banking Act and its regulations govern the business of banking.
- > The Central Bank of Kenya Act established the Central Bank of Kenya, which is charged with controlling and regulating banking and the financial sector as a whole.
- > The Capital Markets Act establishes the Capital Markets Authority, charged with regulating the capital market and companies listed on the Nairobi Securities Exchange.
- > The Insurance Act regulates insurers and insurance products.

The Kenya National Payments System Vision and Strategy 2021-2025<sup>10</sup> released in December 2020 provides an overview of how FinTech has been fully integrated into Kenya's strategic vision. The DFS regulators invited FinTech players to participate in the process of determining how to support their activities to encourage innovation and financial inclusion, while ensuring that abuses are avoided.

**Activities covered**

- > Digital payments
- > Banking
- > Insurance
- > Investment

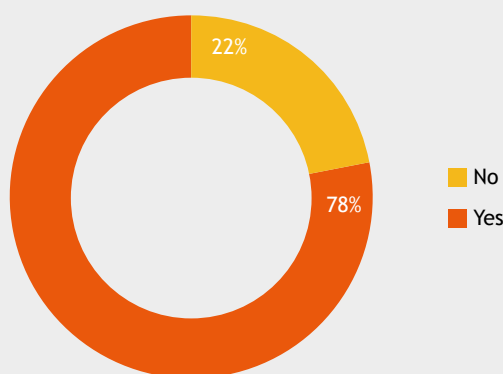
Source: Bowmans. Available at: <https://www.lexology.com/library/detail.aspx?g=1dd80147-e87b-45eb-af1e-8886b72fb928>

### 1.1.2 INDUSTRY ASSOCIATIONS AND SELF-REGULATORY ORGANIZATIONS (SROs)

In terms of the regulatory model for DFS, a distinction is made between the classic model of explicit traditional command and control regulation and the use of alternative regulatory instruments. These alternative models induce relatively lower involvement from regulatory bodies. Industry associations and self-regulatory organizations (SROs) are examples of alternative regulatory approaches. According to the Organization for Economic Co-operation and Development (OECD), “self-regulation typically involves a group of economic agents, such as firms in a particular industry or a professional group, voluntarily developing rules or codes of conduct that regulate or guide the behavior, actions, and standards of its members. The group is responsible for developing self-regulatory instruments, monitoring compliance, and ensuring enforcement.”<sup>11</sup> Industry associations generally resort to self-regulation or co-regulation to implement measures to ensure consumer protection or provide a means of consumer redress. In addition, industry associations and SROs lend credibility to the sector, especially when regulations are not in place.

Such alternative regulatory approaches have been implemented to promote financial inclusion and innovation. As seen in Figures 9 and 10, a large majority of the respondents (78 percent) have at least one industry association or SRO linked specifically to DFS, with a high concentration (47/57: 82 percent) in Asia, LAC, and SSA, while they are less common in other regions (10/16: 63 percent).

**FIGURE 12: PROPORTION OF COUNTRIES WITH INDUSTRY ASSOCIATIONS AND SELF-REGULATORY ORGANIZATIONS (N=73)**



#### BOX #4: THE APPROACH OF THE INDIAN CENTRAL BANK TOWARDS SELF-REGULATORY ORGANIZATIONS



Self-regulatory organizations (SRO) are not new to the financial sector in India. There have been steady moves from the Reserve Bank of India (RBI) - the central bank - towards enabling more SROs to self-regulate certain sectors or areas. The example of India is highlighted in part because the RBI issued guidelines in October 2020 including a framework to set up a self-regulatory organization for payment system operators.

This framework specifies

- > The eligibility criteria of recognition of an SRO by the RBI.
- > The requirements related to management of the SRO's affairs.
- > Granting recognition as an SRO.
- > The functions and responsibilities of a recognized SRO.

In its notification, the RBI Chief General Manager recognized the role of industry self-governance as “helping smooth operations industry-wide and the ecosystem’s development”.<sup>12</sup> This recognition of the positive role of SROs in India is part of the 2019-2021 vision of empowering payment and settlement systems through the (E)payment experience. Section 5.2.1 Self-regulatory organization (SRO) of the Payment and Settlement Systems Vision 2021 provides recommendations for SROs in payments. This article recognizes the “need for a self-regulatory governance framework to foster best practices on important aspects such as security, customer protection, pricing, etc.” It goes on to give directives in terms of the role and scope to be covered: “Such an organization can be constituted to cover the entire gamut of digital PSOs, including retail products of the National Payments Corporation of India (NPCI). The SRO will serve as a two-way communication channel between the players and the regulator or supervisor. The SRO will, of course, work towards establishing minimum benchmarks, standards, and help discipline rogue behavior.”

Source: Reserve Bank of India. 2019. Available at: <https://www.rbi.org.in/Scripts/PublicationVisionDocuments.aspx?Id=921>

The example of India shows that co-facilitation between SROs and a “formal” regulatory institution is possible. This collaboration facilitates the formulation of clearly defined policies and provisions with participation,

<sup>11</sup> Organization for Economic Co-operation and Development. Available at: <https://www.oecd.org/gov/regulatory-policy/42245468.pdf>

<sup>12</sup> Reserve Bank of India. 2021. Available at: <https://www.rbi.org.in/Scripts/NotificationUser.aspx?Id=11986&Mode=0>

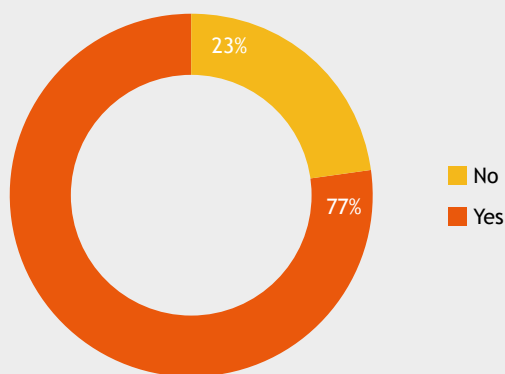
transparency, and accountability for the SROs and, therefore, for the ecosystem at large; as seen with the examples of the Digital Lenders Association of Kenya, “Buy Now Pay Later” (BNPL) and the Financial Conduct Authority (FCA) in the United Kingdom, and Development Finance International (DFI) in Mozambique and Uganda.

## 1.2 INSTITUTIONAL LEVEL

### 1.2.1 INNOVATION FACILITIES

Innovation facilities, such as regulatory sandboxes and innovation hubs, are increasingly being adopted by policymakers to manage innovation in the financial sector. A large majority (77 percent) of AFI member countries have a regulatory sandbox or a regulator supported innovation hub.

**FIGURE 13: COUNTRIES WITH INNOVATION FACILITIES (N=71)**



Innovation facilities can bring benefits to consumers by enhancing the dialogue between innovators and regulators - helping increase a regulator’s understanding of FinTech developments which can provide more control over related risks and rapid activation of mitigation mechanisms. This can, in turn, foster innovation with increased speed and decreased risk, ultimately resulting in increased financial inclusion.

While there are certainly other influential factors, countries with innovation facilities do have a higher average financial inclusion rate than those that do not - 53 percent compared to 44 percent. Out of the 10 countries in our sample with the highest financial inclusion rate, at least nine have innovation facilities.

Moving beyond “wait and see” or “test and learn” regulatory approaches, innovation facilities provide a controlled environment for the development of new products and services, balancing speed and flexibility against risks related to consumer protection or financial

stability. Facilities can take various shapes and forms, with the two most common being “innovation hubs” and “regulatory sandboxes”. Innovation hubs enable firms to engage with regulators and other authorities and seek guidance on the regulatory conformity of new financial products. Regulatory sandboxes take this a step further by providing a formal, but safeguarded, environment where innovators can experiment with new products, services, or business models. These safeguards usually take the form of limitations in time, scope, scale, and clients - in turn, protecting consumers and limiting risk to the wider economy.<sup>13</sup>

#### BOX #5: THE EFFECTS OF REGULATORY SANDBOXES ON FINTECH FUNDING

The UK Financial Conduct Authority pioneered the world’s first regulatory sandbox in 2015. Economists with the Bank for International Settlements argue that one key objective of sandboxes is to facilitate access to capital for startups. They collected unique data on the capital raised by UK FinTechs between 2014 and 2019, covering both those that joined the sandbox, as well as a large group of comparable control firms that did not.

The findings indicated that entry into the sandbox was associated with a higher probability of raising funds and an increase of about 15 percent in the average amount of funding raised. The authors argue their evidence suggests that regulatory sandboxes improve access to funding by reducing information asymmetries and regulatory costs or uncertainty.

Source: BIS. 2020. Available at: <https://www.bis.org/publ/work901.htm>

### 1.2.2 REGULATORY COOPERATION

Regulatory cooperation related to inter-agency interaction, governmental WGs, or other structures can strengthen the ecosystem and promote the inclusive innovation of DFS.

This is a format that is found within the framework of the governance structure retained for the formulation, supervision, and implementation of NFIS, and allows for a good representation of players in the DFS ecosystem from the private and public sectors, including relevant new market players, such as MNOs, FinTechs, and providers of innovative products and services.

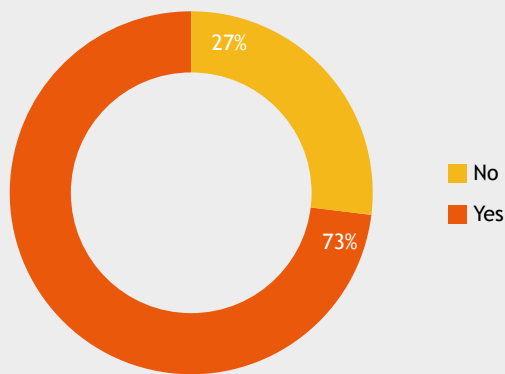
<sup>13</sup> The AFI’s “Innovative Regulatory Approaches Toolkit (2021)” aims to help policymakers better navigate the benefits and risks that different types of innovation facilities can produce by addressing the core challenges faced by policymakers and innovators, and provides practical guidance for self-assessments and exercises to support the decision-making processes of regulators. Available at: [https://issuu.com/afi-global/docs/afi\\_dfswg\\_innovative\\_regulatory\\_approaches?fr=sNWVjMzE1MDA4Mw](https://issuu.com/afi-global/docs/afi_dfswg_innovative_regulatory_approaches?fr=sNWVjMzE1MDA4Mw)

Depending on the strategic objectives and activities of the NFIS, the working groups address issues related to target policy areas, and regulatory, financial, and digital infrastructure barriers.

73%

Seventy-three percent of AFI members have at least one formalized local or national forum (e.g., committee or WG) for regulatory cooperation, with the highest concentration (22/25: 88 percent) in the MENA, Asia, and LAC regions, while other regions have less (23/37: 62 percent).

FIGURE 14: PROPORTION OF COUNTRIES WITH REGULATORY COOPERATION (N=62)



Regulators might be overwhelmed by the constant innovations presented by the financial and technological sectors. These innovations broaden the scope of possibilities though regulators may find themselves faced with new products and services that had not been addressed by existing regulations. Moreover, technology and tech-native businesses are often cross-border and cross-sectoral in nature - often beyond the scope of any single regulator.

Consequently, regulatory collaboration across sectors and thematic areas, such as among financial supervisors, telecom authorities, data protection authorities, competition authorities, and consumer protection agencies becomes essential. Beyond national jurisdictions, cross-border regulatory collaboration is also crucial from a regulatory and supervisory perspective. Regulatory cooperation is, therefore, invaluable in promoting communication, a deeper understanding, and accountability while contributing to an enabling and inclusive environment for the development of DFS.

#### BOX #6: REGULATORY COOPERATION IN THE SOLOMON ISLANDS



Historically, the Central Bank of Solomon Islands (CBSI) has had an integrated approach to cooperation with national stakeholders. Regulatory cooperation in the Solomon Islands became more embedded when the government decided to move towards the digital economy in 2019. The country is now in the implementation phase of its third NFIS, which has led to the creation of working groups focused on key priority areas and composed of members from ministries and financial service providers. As the first Pacific Island country to engage in this journey, the Solomon Islands has enhanced the working relationship of key stakeholders in a cooperative (albeit sometimes competitive) and purpose-driven way.

The first step of the journey was improving the use of the internet to the dispersed island nation of roughly 800,000 people and to focus on developing e-commerce. “The e-commerce strategy is in its development phase and cooperation is critical because there are so many players coming together as there are policy, regulatory, and infrastructure elements that overlap and need to be enhanced,” said Linda Folia, Manager of the National Financial Inclusion Unit of the CBSI, who has played a pivotal role in ensuring coordination.

Another complementary example of regulatory cooperation is embodied in the signing of a memorandum of understanding (MOU) by the CBSI and the Telecommunications Regulatory Commission to collaborate on two projects: the development of mobile money and the national SIM card registration database. Indeed, the Solomon Islands government has recently mandated compulsory SIM registration through an act of Parliament. The Central Bank, therefore, wishes to enable eKYC by collecting individual information from SIM registration to facilitate access to financial services and increase financial inclusion.

“In the Solomon Islands, there is no option but to cooperate given the challenges we face due to our topography. And this is the best way forward to have a positive impact on increased access and the financial inclusion rate in the country and moving towards a digital economy.”

Source: Interview with the Central Bank of Solomon Islands (June 2022).

### 1.2.3 INTEROPERABILITY

Interoperability is represented in both the technology and business models that enable customers to transfer money between accounts operated by different service providers. This allows the transfer of funds between electronic money accounts held at different companies; an electronic money account and a bank account; or either of these two accounts and any other electronic money account.

Interoperability helps to promote financial inclusion as well as efficiency, by making payments faster, more secure, and often more affordable. This contributes to the scalability of financial products, increases cost efficiency, and improves risk management. Policymakers can benefit from an increased capacity to monitor domestic and international transactions - as money is less likely to leave the electronic ecosystem. Interoperability can, therefore, be mutually beneficial to consumers, service providers, and governments, helping align their respective interests and objectives.

While bank account interoperability has been available in many markets for decades, e-money interoperability, while growing rapidly, is still in its infancy. For instance, real-time interoperability between accounts at different mobile money providers was available in only one market in 2013, but seven years later, it is in at least 19.<sup>14</sup> Meanwhile, the value of transactions flowing between banks and mobile money platforms more than doubled between 2019 and 2021.<sup>15</sup>

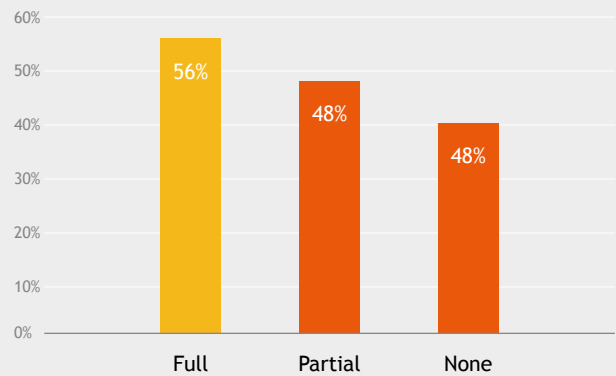
# 36%

Among AFI members, 36 percent have full interoperability (e.g. the ability to transfer money to and from any e-money wallet to another as well as to and from any bank account).

Forty-nine percent have partial interoperability, and 15 percent have none. Interoperability may play a role in helping promote financial inclusion as countries without it seem to have a lower financial inclusion rate than others - 40 percent compared to 48 percent for partial interoperability, and 56 percent for those with full interoperability. Out of the 10 countries in our sample with the highest financial inclusion rate, at least seven have partial or full interoperability.

Progress towards interoperability can take many forms, it can be industry-led, where different service providers enter into bilateral agreements to allow transfers between their respective accounts. This is how some of the earliest initiatives began, for example, in Indonesia, Tanzania, and Rwanda. In some cases, policymakers take a more direct approach, actively facilitating (e.g. Peru), or even mandating multilateral interoperability through a central switch (e.g. Ghana) or through aggregators (e.g. Uganda).<sup>16</sup>

**FIGURE 15: INTEROPERABILITY AND FINANCIAL INCLUSION (N=73)**



Framework for Digital Financial Services Interoperability in Africa

> [View here](#)

14 GSMA. 2020. Tracking the journey towards mobile money interoperability. Available at: [https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2020/06/GSMA\\_Tracking-the-journey-towards-mobile-money-interoperability-1.pdf](https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2020/06/GSMA_Tracking-the-journey-towards-mobile-money-interoperability-1.pdf)

15 GSMA. 2022. State of the industry report on mobile money 2022. Available at: <https://www.gsma.com/sotir/>

16 The “AFI framework for digital financial service interoperability in Africa” is a policy model that aims to enhance in-country policy implementation focused on expanding interoperability between DFS providers and other financial services providers. Available at: <https://www.afi-global.org/publications/framework-for-digital-financial-services-interoperability-in-africa/>

### 1.2.4 GENDER-SENSITIVE DFS POLICIES

The financial inclusion gender gap is on the decline. Data from the 2017 Global Findex Survey<sup>17</sup> shows that women in developing economies were nine percentage points less likely than men to have a bank account, in 2021, this had narrowed to six percent<sup>18,19</sup>.

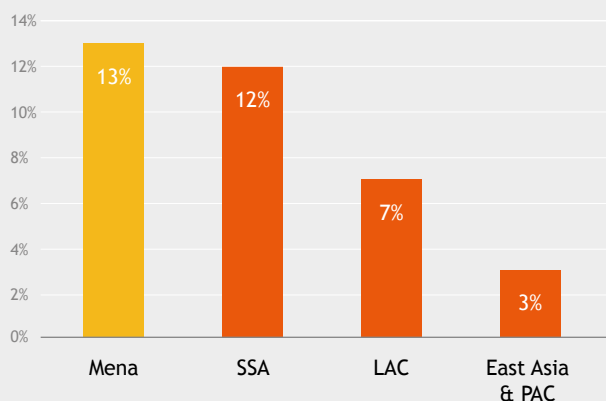


# 13%

The Middle East and North Africa (MENA) region had the highest gender gap at 13 percent (Findex, 2021).

Followed by Sub-Saharan Africa (SSA) where the gap is narrower at 12 percent. Latin America and the Caribbean (LAC) are represented by a seven percent disparity, while East Asia and the Pacific has the smallest gender gap at just three percent.<sup>20</sup> Several factors explain this dataset including regulatory and legal barriers, demand-side factors, such as limited digital financial literacy (DFL), and sociocultural norms, among others.

**FIGURE 16: FINANCIAL INCLUSION GENDER GAP - FINDEX 2021**



# 34

Our analysis shows that 34 AFI members mentioned gender inclusion as a priority theme in their NFIS, while others have launched a specific gender-oriented policy.

The Solomon Islands is the first to have drafted a specific financial inclusion policy for women, although it has not yet been officially launched, while Nigeria has completed a framework for the inclusion of women, and the Kingdom of Eswatini launched its Gender inclusive Finance Roadmap on 4 July 2022 and one of the pillars is DFS. Malawi is also looking at developing a GIF Roadmap through the current In-Country Implementation (ICI) support. The situation reflects the distance that remains in terms of the adoption of an enabled policy and guidelines for gender inclusion.

Ghana has planned the implementation of a national financial capability campaign that targets women and other excluded profiles. In Argentina, a strategy has been defined with particular attention to access and use of financial services by vulnerable populations, notably women. Jordan goes a step further and identifies the establishment of regulations that encourage women's account ownership and the development of their financial capacity, while Pakistan and Vanuatu, as part of their project to enhance financial services, including digital payments usage, have defined specific indicators for women's inclusion. The Central Bank of Solomon Islands, as an adjunct to the NFIS, has drafted a National Women's Financial Inclusion Policy.

17 World Bank Group. Available at: <https://www.worldbank.org/en/publication/globalfindex>

18 Ibid.

19 Alliance for Financial Inclusion. 2021. The Case Studies of Multisectoral Approaches to Integrating Digital Financial Services for Women's Financial Inclusion. Available at: [https://www.afi-global.org/wp-content/uploads/2021/10/DWFS\\_Gender\\_CS\\_FINAL.pdf](https://www.afi-global.org/wp-content/uploads/2021/10/DWFS_Gender_CS_FINAL.pdf)

20 World Bank Group. Available at: <https://www.worldbank.org/en/publication/globalfindex>



Several AFI members countries are receiving support from AFI in the form of ICIs with gender components. Some of the projects are specific to the DFS thematic area, for example, the National Bank of Cambodia is implementing a project using the Development of a Gender-Sensitive Financial Literacy Roadmap with DFL components as one of its outputs, while Mozambique’s central bank is conducting a National Diagnosis of Financial Literacy in the country, which includes DFL. Banco Central de El Salvador, in turn, is conducting a Financial Capability Survey also with a DFL component, while other countries are looking at mainstreaming gender in the implementation of their policies.

These measures must be based on the collection and analysis of sex-disaggregated data to be relevant to the target.

55%

The lack of sex-disaggregated data is still a major hurdle - just over half of member countries reported collecting gender-disaggregated data (30/55: 55 percent) with the main concentration (23/30: 76 percent) in the following regions: SSA, MENA, PAC, while this is less prevalent in others (7/30: 24 percent).

**BOX #7: WOMEN’S FINANCIAL INCLUSION IN CAMBODIA**



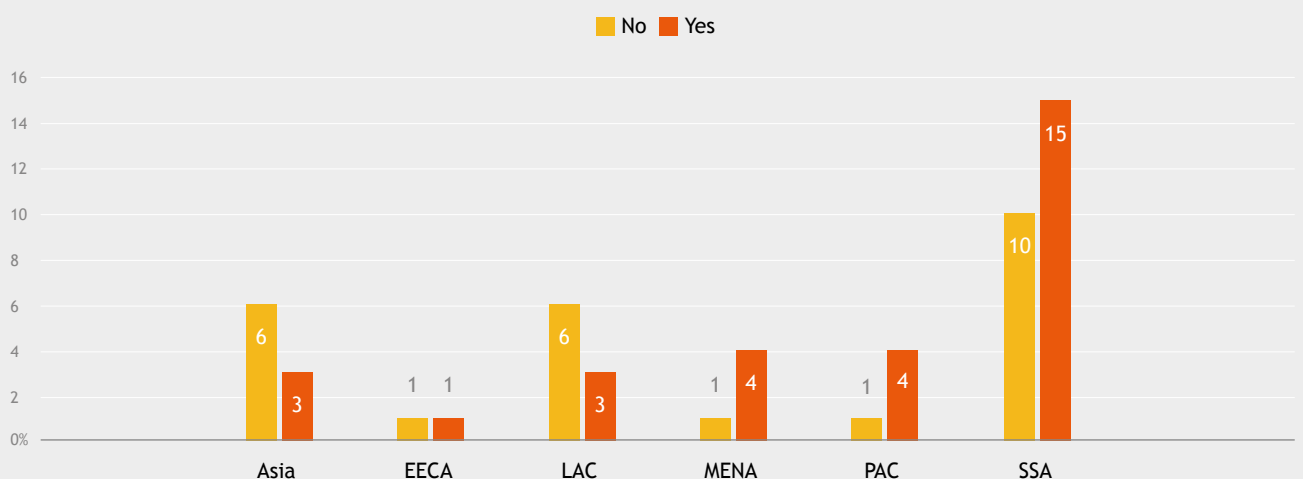
The financial inclusion of women is at the heart of the initiatives being carried out in Cambodia. In 2019 and 2020, the National Bank of Cambodia (NBC) participated in the AFI Leadership and Diversity Program for Regulators and began developing policy instruments to improve women’s and WMSME’s access to finance.

The NBC initiatives are supported by the National Financial Inclusion Strategy 2019-2025, which aims to reduce the gender inclusion gap from 27 to 13 percent. In fact, the Cambodian NFIS includes a gender-oriented action plan.

The NBC is currently developing a collection framework of disaggregated financial inclusion data and is in the formulation phase of a Gender Sensitive Financial Literacy Roadmap with a digital component to align stakeholders, including the Ministry of Education, Youth and Sports, on the financial literacy campaigns that are carried out, with women as the main target. These campaigns also improve the financial education of female entrepreneurs, are jointly carried out with the Ministry of Women and associations of women entrepreneurs, and emphasize the sharing of consumer protection information and use of regulated digital financial platforms.

Source: Interview with the National Bank of Cambodia (2022)

**FIGURE 17: COUNTRIES COLLECTING SEX-DISAGGREGATED DATA**



# PILLAR 2 DIGITAL PAYMENTS

Payment systems capture the very essence of supply and demand, facilitate the growth of commerce, enable the measurement of national statistics, and guide national authorities in developing effective policies for economic development and financial stability.

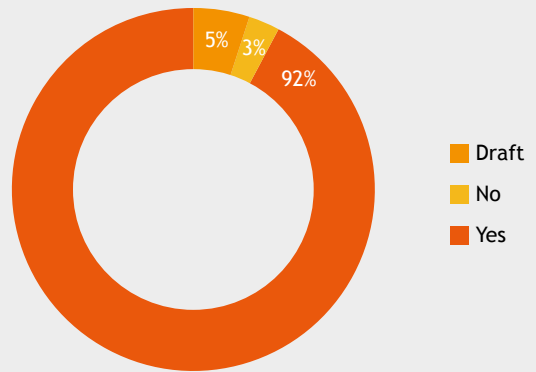
Efficient, well-functioning, and secure payment systems are, therefore, of the utmost importance to governments which are increasingly turning their attention to scalable digital payments. This pillar covers both the infrastructure and regulatory aspects of digital payments.<sup>21</sup>

## 2.1 PAYMENT SYSTEMS

Oversight of payment systems is a crucial element for maintaining the stability of the financial system. Regulatory frameworks usually cover the entire process of effecting a payment - from enabling a payer to make an instruction to the beneficiary receiving the funds. Regulation plays an important role in the operation of payment systems without stifling market development and innovation, given the risks that can potentially derail their smooth functioning. The regulation of national payment systems, frequently contained in various pieces of legislation, often requires striking a balance between financial inclusion and other objectives such as soundness, integrity, and efficiency.

All AFI regions have a payment system act or law. Individually 92 percent of member countries (72/78) have it, while 5 percent (4/78) are in the drafting process.

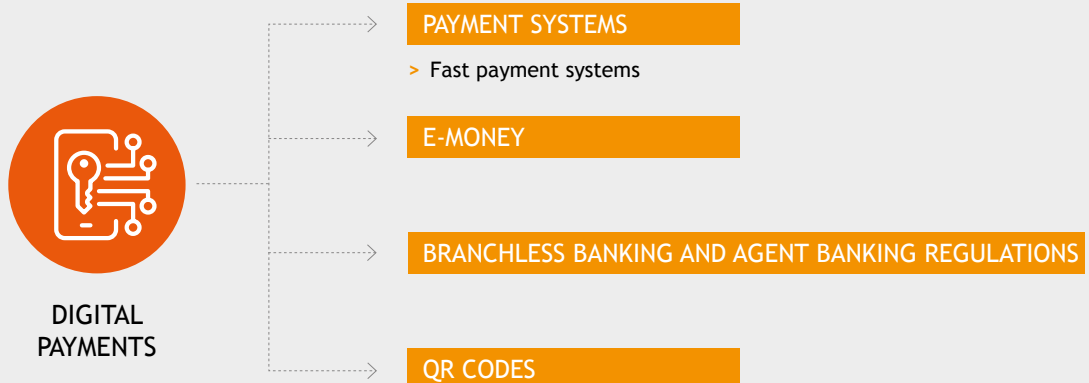
**FIGURE 19: PAYMENT SYSTEMS ACT OR A LAW OF PAYMENT SYSTEMS WITHIN THE AFI NETWORK (N=78)**



In addition to the act, some countries, such as Kenya, Ghana, and Namibia have adopted a National Payment System Vision and Strategy.

21 Alliance for Financial Inclusion. 2017. National Retail Payment Systems to Support Financial inclusion. Available at: [https://www.afi-global.org/wp-content/uploads/publications/2017-11/DFS\\_GN\\_29\\_stg4.pdf](https://www.afi-global.org/wp-content/uploads/publications/2017-11/DFS_GN_29_stg4.pdf)

**FIGURE 18: PILLAR 2 DIGITAL PAYMENTS**



**BOX #8: THE NATIONAL PAYMENT SYSTEM  
VISION AND STRATEGY OF NAMIBIA**

The Bank of Namibia (BoN) launched a National Payment System Vision and Strategy 2021 - 2025, which was developed in collaboration with the Payment Association of Namibia (PAN), together with industry participants.

**Formulation**

The BoN decided to adopt a collaborative approach by directing experts to carry out a study on payment system megatrends around the world and to analyze Namibia's strengths, weaknesses, opportunities, and threats (SWOT) in terms of a payment system. Two workshops were then organized. The first presented the conclusions of the megatrends study providing information and raising awareness among players in the financial sector on the opportunities globally. The second submitted the findings of the SWOT analysis, and shared the vision and projects identified by the central bank and PAN, in addition to collecting inputs from the various actors.

The vision retained within the framework of the strategy is articulated as follows: "a world-class National Payment System at the forefront of digital innovation and transformation, facilitating economic activity in support of Vision 2030."

**Monitoring and Evaluation**

The strategy is still at the start of its implementation; however, the PAN and BoN have developed monitoring and evaluation measures. The PAN receives an update on the progress of activities from industry members at a monthly forum, after which, a quarterly progress report and tracker are produced by the PAN and forwarded to the BoN. The central bank then produces an annual review or assessment report.

- > Funding and governance
- > Collaboration between stakeholders
- > Consumer-centric innovation
- > Human resource capacity development

**Next steps**

The next steps consist of ensuring adoption by the different actors and their participation in the implementation of various key initiatives listed in the strategy, prioritizing the projects according to financial and human resources, and finalizing funding for the projects.

Source: Bank of Namibia. Available at: <https://www.bon.com.na/CMSTemplates/Bon/Files/bon.com.na/21/2183fe04-8b8f-44d0-add9-4629d7ec86a5.pdf>

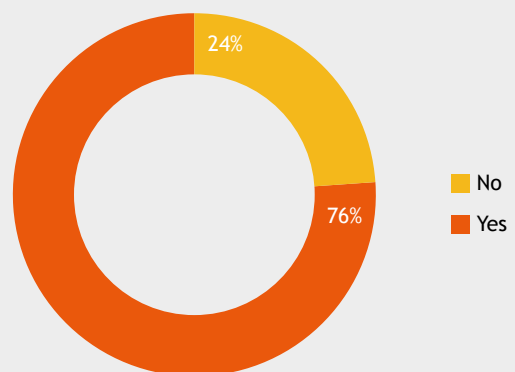
**2.1.1 FAST PAYMENT SYSTEMS**

Fast payments systems (FPS) transfer funds between two parties almost instantly. Some FPS are purpose-built, while others are only a part of, or an enhancement to, an existing payment system. With so-called 24/7 access, the constant availability of FPS is a key feature, distinguishing them from the more entrenched real-time gross settlement (RTGS) systems. While FPS can credit an end user's account in real time, RTGS are not always available.<sup>22</sup>

Another significant difference between FPS and RTGS systems is that the latter were built to cater solely to the needs of banks while many FPS support a wide range of value-added functionalities and services. This, in addition to the real-time and around the clock availability of FPS presents unique challenges for regulators. For example, fraud risks expand as there is no lag between when a payment is initiated and when it is received. Due to their instant nature, legal frameworks must address the moment in which payments are final and when the funds are legally transferred from the sender to receiver. Additional regulatory considerations include the FPS relationship with digital ID, KYC, consumer protection, and AML/CFT.<sup>23</sup>

One of the best examples of a successful FPS is Pix, launched in Brazil in 2020. The platform saw remarkably fast uptake, with the majority of Brazilians already using it by 2022, overtaking credit and debit card transactions by volume across the country.<sup>24</sup> The majority, 76 percent, of AFI member countries have at least one fast payment system.

**FIGURE 20: AFI MEMBER COUNTRIES WITH FAST PAYMENT SYSTEMS (N=63)**



22 World Bank. 2021. Considerations and Lessons for the Development and Implementation of Fast Payment Systems. Available at: <https://documents1.worldbank.org/curated/en/515381630386274535/pdf/Implementation-Considerations-for-Fast-Payment-Systems.pdf>

23 Ibid.

24 Central Bank of Brazil. 2022. Available at: <https://www.bcb.gov.br/en/financialstability/pixstatistics>

**BOX #9: INSTANT PAYMENTS AND  
FINANCIAL INCLUSION IN EGYPT**

The Central Bank of Egypt (CBE) launched its new Instant Payment Network and “InstaPay” mobile application in early 2022. The system allows for instant financial transfers which, unlike previously, are always available - including evenings, weekends, and public holidays. Users can make transfers to bank accounts, digital wallets, and the pre-paid Meeza card as well as use the InstaPay app to connect different accounts.

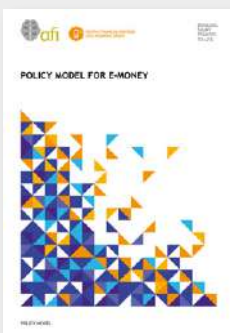
Aside from decreasing costs and increasing the speed and convenience of payments, the CBE believes the new system will have a positive impact on financial inclusion in the country. With a population of just over 100 million, 22 million prepaid Meeza cards have already been issued. People can get a Meeza card by going to an agent, rather than to a bank branch, and all they need is a national ID or passport. This is a significant change from the more stringent identification requirements for opening a bank account and is, as a result, likely to increase the reach and depth of financial services in Egypt.

As many live in hard to reach areas and lack the required documentation to open a bank account, millions are now able to use their Meeza cards to interact with other parts of the financial system quickly and efficiently.

Source: Interview with the Central Bank of Egypt (June 2022)

## 2.2 E-MONEY

The merits of electronic money in strengthening financial inclusion are well-established. AFI’s DFSWG has notably listed the AFI network’s good practices and approaches related to e-money policies and regulations into a policy model.<sup>25</sup>



Policy model for e-money

[> View here](#)

The regulation of e-money as a payment instrument and its issuance is heavily reliant on specific regulatory

components addressing the maintenance of trust accounts, prohibition on the commingling of funds, accessibility, redress for loss, and the broader questions of management of deposits. e-money regulation should not be entity-specific and to the degree possible device agnostic.

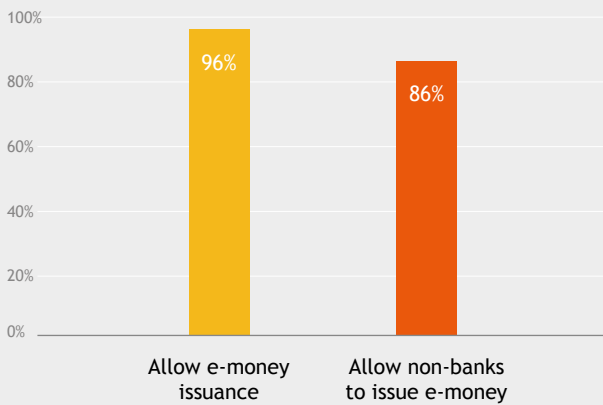
Laws and regulations preventing anti-competitive behavior can help create a level playing field, in turn, fostering innovation, facilitating market entry, and reducing consumer prices. Further, the assessment of regulations to assure that they address activities - not entities - guarantees that no qualified entrant will be barred from participation. By adopting a holistic risk-based and activity-based approach, dialogue and cooperation between regulators can set the fairest standards for all DFS providers - or financial service providers financiers wishing to embark on a digitalization process. Experience shows that there is a better chance of increasing the financial inclusion of populations when financial actors create an ecosystem with regulations that encourage the adoption and provision of services outside traditional channels.

A telling example in DFS markets is licensing regulations and distinctions between requirements for banks and non-banks. These inequalities of treatment can constitute statutory obstacles to innovation and competition, while a healthy competitive landscape can promote the importance of customer data and encourage the entry of innovative technology providers into DFS markets. Although several countries allow non-banks to issue e-money (62 member countries), the specifications and requirements for obtaining an e-money issuer license generally vary by type of institution. This is the case in the West African zone, where mobile telephone operators, for example, must create a separate entity that complies with the procedures required by the central bank. It is under this entity that the application for approval will be made. Another example are the Indonesian and Indian cases where the regulation allows bank e-money issuers to offer cash-in and cash-out while non-banks are only authorized to offer cash-in. Regulators tend to adopt an entity-based approach with a view to guaranteeing financial stability and controlling the risks that might emerge from non-bank activity.

<sup>25</sup> Alliance for Financial Inclusion. 2019. Policy Model for E-money. Available at: [https://www.afi-global.org/sites/default/files/publications/2019-09/AFI\\_DFS\\_Emoney\\_AW\\_digital\\_0.pdf](https://www.afi-global.org/sites/default/files/publications/2019-09/AFI_DFS_Emoney_AW_digital_0.pdf)

Electronic money is regulated by the central bank through general directives to financial institutions or through specific instructions regarding electronic money. Brazil was a pioneer in 2013 by passing a law on payment institutions, including e-money issuers. Another example is Mexico which passed a FinTech law in 2018 to regulate FinTech institutions addressing crowdfunding and e-money. Nearly all member countries (71/74: 96 percent) have implemented electronic money regulations with one member in the process of developing its regulations. Fewer member countries (62/72: 86 percent) permit non-banks to issue e-money directly or through a subsidiary.

**FIGURE 21: E-MONEY REGULATIONS VERSUS E-MONEY ISSUANCE PERMISSION (N=74)**



With 5.2 billion people subscribed to mobiles at the end of 2020, representing 67 percent of the global population,<sup>26</sup> the potential of digital services to support financial inclusion speaks for itself. This highlights the need to broaden non-bank inclusion into the DFS regulatory framework by establishing an open and enabling environment on the one hand for the various types of e-money providers, including non-banks such as mobile network operators (MNO) and bigtechs. On the other, the DFS regulatory framework should support the provision of innovative e-money services: cash-in and cash-out, in-app payments, closed-loop, or semi-closed payments, for example.

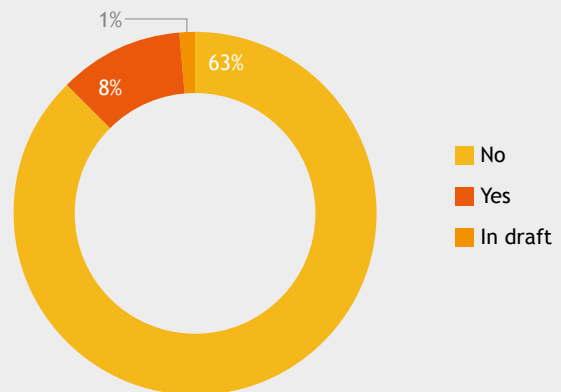
### 2.3 AGENT BANKING

Agents, defined as commercial entities whose primary objective and business is other than the provision of financial services, are becoming increasingly important when it comes to delivering financial services. Businesses such as grocery stores, retail outlets, post offices, pharmacies, or lottery outlets can become agents, allowing banks to expand their services into increasingly hard to reach areas. Without enabling

agent banking regulations, banks may have been faced with insufficient incentives or capacity to service these areas - usually inhabited by a disproportionate number of low-income, unbanked people. As a result, enabling this cost-effective way for banks to expand their reach has revolutionized access to financial services.<sup>27</sup>

The Central Bank of Brazil was the first to test the agent banking model in the late 1990s, when it authorized lottery store franchises to process bank transactions. The model quickly spread in the ensuing decades, with the number of agents in the country reaching nearly 180,000 in 2020.<sup>28</sup> Other countries followed suit and currently, nearly all AFI member countries (63/72: 88 percent) have agent banking regulations. However, the design and implementation of these regulations varies across countries. These differences include the variety of services agents are allowed to offer (i.e. may or may not permit the onboarding of new customers) and the types of businesses that are allowed to act as agents (i.e. may or may not require only registered business entities). These, and other nuanced differences, can significantly affect the extent to which agent banking contributes to bridging the financial inclusion gap.<sup>29</sup>

**FIGURE 22: AGENT BANKING REGULATIONS (N=72)**



26 GSMA. 2021. The Mobile Economy, 2021. Available at: [https://www.gsma.com/mobileeconomy/wp-content/uploads/2021/07/GSMA\\_MobileEconomy2021\\_3.pdf](https://www.gsma.com/mobileeconomy/wp-content/uploads/2021/07/GSMA_MobileEconomy2021_3.pdf)

27 Alliance for Financial Inclusion. 2012. Agent Banking in Latin America. Available at: [https://www.afi-global.org/sites/default/files/discussion\\_paper\\_-\\_agent\\_banking\\_latam\\_america.pdf](https://www.afi-global.org/sites/default/files/discussion_paper_-_agent_banking_latam_america.pdf)

28 IDB Invest. 2020. Banking Agents, On the Frontlines of Financial Inclusion. Available at: <https://www.idbinvest.org/en/blog/financial-institutions/banking-agents-frontlines-financial-inclusion>

29 Alliance for Financial Inclusion. 2012. Agent Banking in Latin America.

**BOX #10: AGENT BANKING AND SCHOOL  
FEE PAYMENTS IN UGANDA**

Agent banking regulations were first introduced in Uganda in 2017. Financial inclusion rates in the country have steadily increased since then, with account ownership growing from 59 percent in 2017 to 66 percent in 2021 (Findex, 2022). The number of bank agents around the country has grown to over 22,000, the number of regulated deposit accounts increased by 46 percent, from 7.4 million to 10.8 million, and the number of regulated credit accounts has doubled - from 920,000 to over 1.8 million.

While a large part of this growth can be traced to mobile money, rather than agent banking, Alex Ochan, Head of Financial Inclusion at the Central Bank of Uganda, argues that agent banking has brought about competition, which has positively impacted peoples' lives and financial inclusion overall.

"Paying school fees was a big challenge in Uganda," said Ochan. "Most school fees were paid at the same time, which used to lead to a lot of time spent waiting in line at banks and other financial institutions. People also had to travel long distances to get to the bank, incurring costs not only for transport, but also the risk of traveling with large amounts of money."

Ochan said that agent banking has helped reduce these costs, not only by bringing banking closer to the people, but also by enabling product innovations. "Most schools used to only accept bank payments, but now we are seeing banking communicating with mobile money service providers. This allows people to pay school fees with mobile money, further decreasing their costs."

Source: Interview with the Central Bank of Uganda (June 2022)

## 2.4 QR CODES

Quick response (QR) codes are like traditional bar codes, except they can store a larger amount of information per unit area. QR codes have been used to replace or complement traditional merchant payment point of sale (POS) devices as they can enhance the user experience, interacting almost seamlessly with various forms of electronic wallets, decreasing the time needed to complete a transaction.

QR code adoption has the potential to help advance financial inclusion by making merchant payments more accessible and affordable to rural consumers. At the same time, as smartphones are essential to the effective use of QR codes in this context, the

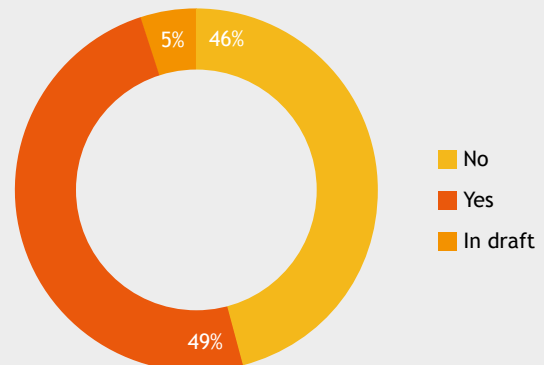
affordability of devices is a critical factor. This leads to regional differences in adoption rates. Various Asian and European markets, where smartphone penetration is high, have seen growth in QR code usage. Other regions, such as Africa, where feature phones still dominate, have seen lower uptake.

While private sector players play a big role in innovations and investments in scaling QR-based payments, regulators play an enabling role towards consumer protection, mitigating fraud risks, standardization of security and governance requirements, interoperability, and so forth. Interoperability, in particular, is a crucial consideration for regulators, as this can help adoption, increasing transaction volumes and the overall viability of merchant payments in underserved areas. In addition, regulations can touch upon various topics, such as national QR code standardization and security requirements for QR code merchant payments.

# 49%

Not surprisingly, as the technology is relatively new, only 49 percent of AFI member countries have implemented some form of QR code regulation, while five percent are in the drafting process. Asia leads the pack where 12 out of 13 members have introduced relevant regulations.

FIGURE 23: QR CODE REGULATION (N=63)



**BOX #11: THE RAPID RISE  
OF QR CODES IN CHINA**

The two Chinese payment giants, Alipay and WeChat Pay, present the largest QR code successes to date. As early as 2018, USD13 trillion in business and mobile payment volumes went through QR codes - or 30 percent of the total.<sup>30</sup> And by 2021, QR codes accounted for over 90 percent of China's total mobile payments.<sup>31</sup>

As a result of this rapid growth Chinese regulators have, throughout the years, considered various forms of regulation. The focus has been on a range of topics including QR code expiration dates; various anti-counterfeit measures; encryption; and risk monitoring, among others.

Anti-money laundering has been on the list of priorities, exemplified by China's central bank announcing the mandatory use of special business QR codes for all merchants starting 1 March 2022. The central bank argued that while QR codes can boost the efficiency of the micro-economy, use of the technology without oversight carries inherent risks. In a public statement, a spokesperson said, "Some criminals use high returns as bait to attract people to use their own personal payment receipt QR code to move gambling funds, which affects the traceability of gambling-related capital."<sup>32</sup>

The new rules saw strong resistance from users, leading to authorities again allowing personal QR codes for business transactions. In addition to AML/CFT, fraud, consumer protection, and security-related issues, the widespread use of QR codes presented Chinese regulations with challenges related to the formalization of the economy as millions of street vendors and unregistered small businesses continue to use their personal QR codes.

30 GSMA. 2020. QR code merchant payments: A growth opportunity for mobile money providers. Available at: <https://www.gsma.com/mobilefordevelopment/blog/qr-code-merchant-payments-a-growth-opportunity-for-mobile-money-providers>

31 Opengov Asia. 2022. Available at: <https://opengovasia.com/chinese-government-holds-off-plans-to-ban-personal-qr-codes/>

32 Opengov Asia. 2022. Available at: <https://opengovasia.com/chinese-government-holds-off-plans-to-ban-personal-qr-codes/>

## PILLAR 3 DIGITAL FINANCE AND INNOVATIONS

This pillar covers use cases and business model innovations to increase usage of digital financial services and advance financial inclusion. Conventional products sold through digital channels are examined as well as new digital only products. Further, we also see innovative FinTech business models that leverage digital rails and data ecosystems to develop various digital finance use cases.

These DFS and FinTech innovations readily outpace the speed of regulatory change. This section highlights key regulatory considerations to strengthen and support these innovations - while also acknowledging the difficulties that may be encountered while trying to maintain proportionality between preserving financial system integrity and promoting innovation.

### 3.1 DIGITAL PRODUCTS

Many products fall under the umbrella of digital financial services. These include, among others, digital credit, digital insurance, and digital payments (P2P, B2B, G2P, etc.). As the regulation of these services tends to evolve in line with the advances and innovations made by service providers, it is important to enable supportive regulatory responses that can keep pace without unduly hindering growth.

#### 3.1.1 DIGITAL CREDIT

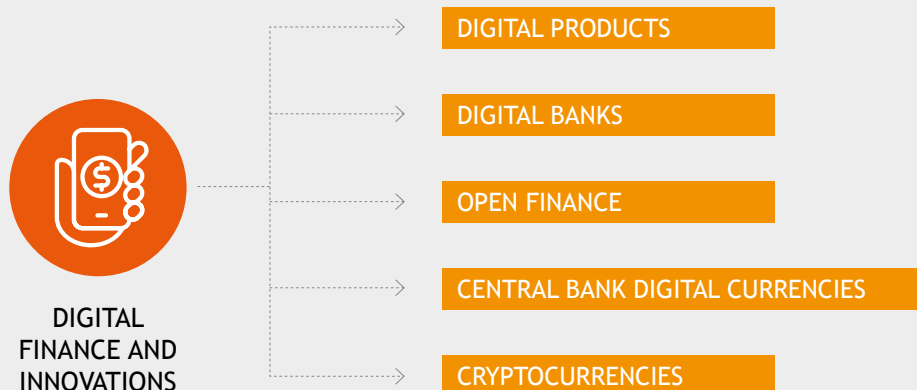
Digital credit is usually defined as the delivery of relatively small loans through digital means. Additional key features include shorter loan tenures, remote or self-initiated access, fast loan processing and new, alternative forms of credit assessment.<sup>33</sup>



While digital credit involves most of the same risks as more traditional lending models, a range of unique risks, worthy of regulatory consideration, are created. Credit products delivered through mobile phones are quickly emerging as the most common digital credit delivery mechanism, leading to challenges related to the high speed of service delivery, small screen size of feature phones as well as the “one-size-fits-all approach” commonly employed by service providers. Furthermore, the use of credit scoring algorithms using alternative data sources raises concerns about data privacy and consumer protection.

<sup>33</sup> Alliance for Financial Inclusion. 2020. Policy Framework for Responsible Digital Credit. [https://www.afi-global.org/sites/default/files/publications/2020-04/EN\\_Policy\\_Framework\\_for\\_Responsible\\_Digital\\_Credit.pdf](https://www.afi-global.org/sites/default/files/publications/2020-04/EN_Policy_Framework_for_Responsible_Digital_Credit.pdf)

FIGURE 24: PILLAR 3: DFS AND FINTECH





Feature phones are particularly widespread in lower income market segments. Their small screen size makes it challenging for service providers to adequately present important information on loan terms to borrowers. This has led some service providers to present this information via a web link, which in many cases cannot even be accessed by the borrowers' own phone given their limitations.

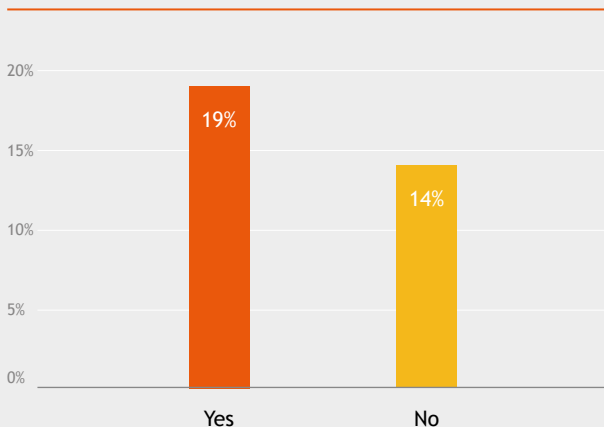
The nature of digital credit is that it enables automated and nearly instant access to credit. While this can lead to a range of consumer benefits, borrowers are incentivized to make quick and sometimes unconsidered decisions. When combined with aggressive push marketing (also particularly cost efficient when delivered digitally), this can lead to excessive borrowing.<sup>34,35</sup>

37%

Only 37 percent of AFI member countries have a regulatory framework that enables digital credit (with specific regulations or as part of broader regulations), while three percent are in the drafting process.

Fifty-nine percent have no specific regulations relevant to digital credit. People in countries with relevant regulations were found to have higher access to credit than people in other countries.

**FIGURE 25: DIGITAL CREDIT REGULATIONS AND ACCESS TO CREDIT (N=59)**



#### BOX #12: DIGITAL CREDIT REGULATIONS INTRODUCED IN KENYA



Digital lending in Kenya was largely unregulated until recently. Being the first market to introduce mobile money in 2007, the Kenyan digital lending market is highly active, with over 100 operational service providers.<sup>36</sup> However, the lack of regulation led to a range of consumer protection related issues, with the Central Bank of Kenya voicing concerns over excessive interest rates (up USD400 per year in some cases) negatively impacting household debt.<sup>37</sup> A survey by the Competition Authority of Kenya, for example, found that around 77 percent of mobile loan borrowers had, at some point, paid penalties and were charged for rolling over their debt.<sup>38</sup>

The Central Bank of Kenya felt a need to intervene to address concerns raised by the public related to predatory practices of the previously unregulated digital credit providers, and in particular, “their high cost, unethical debt collection practices, and the abuse of personal information.”<sup>39</sup> As a result, digital credit regulations were introduced in 2022, addressing a range of relevant topics, including consumer protection, credit information sharing, and AML/CFT.

#### 3.1.2 DIGITAL INSURANCE

Digital insurance business models have the potential to offer significant benefits to customers and insurers. Aside from improved speed and efficiency leading to lower prices, benefits include extended geographical reach, automated claims payments, and additional means of fraud detection.

For digital insurance to be viable, it is important that as much of the business process as possible can be completed electronically - without the involvement of paper documents or wet-ink signatures.

34 Accion. 2018. Responsible Digital Credit. Available at: [https://content.centerforfinancialinclusion.org/wp-content/uploads/sites/2/1970/01/Responsible\\_Digital\\_Credit\\_FINAL\\_2018.07.18.pdf](https://content.centerforfinancialinclusion.org/wp-content/uploads/sites/2/1970/01/Responsible_Digital_Credit_FINAL_2018.07.18.pdf)

35 This framework is aimed at guiding policymakers in developing appropriate legal and regulatory frameworks to mitigate the potential risks of providing digital credit. For more information, see the AFI Policy Framework for Responsible Digital Credit. Available at: <https://www.afi-global.org/publications/policy-framework-for-responsible-digital-credit/>

36 GeoPoll. 2020. Case Study: Digital Lending Grows in Popularity in Kenya. Available at: <https://www.geopoll.com/resources/digital-lending-kenya-dlak/>

37 Nita Bhalla. 2022. Available at: <https://news.trust.org/item/20220119085754-1v7ss/>

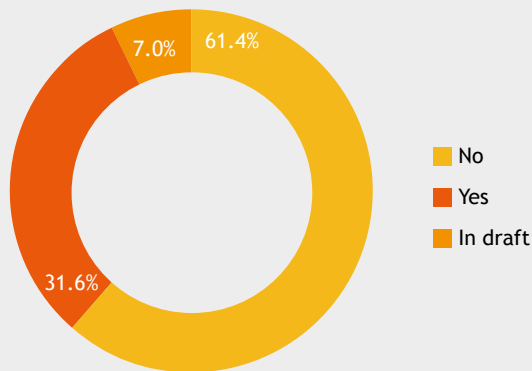
38 Competition Authority of Kenya and Innovations for Poverty Action. 2021. Available at: [https://www.cak.go.ke/sites/default/files/Digital\\_Credit\\_Market\\_Inquiry\\_Report\\_2021.pdf](https://www.cak.go.ke/sites/default/files/Digital_Credit_Market_Inquiry_Report_2021.pdf)

39 Central Bank of Kenya. 2022. Publication of Regulations for Digital Credit Providers and Commencement of their Supervision. Available at: [https://www.centralbank.go.ke/uploads/press\\_releases/2119450187\\_Press%20Release%20-%20Publication%20of%20Regulations%20for%20Digital%20Credit%20Providers%20and%20Commencement%20of%20their%20Supervision.pdf](https://www.centralbank.go.ke/uploads/press_releases/2119450187_Press%20Release%20-%20Publication%20of%20Regulations%20for%20Digital%20Credit%20Providers%20and%20Commencement%20of%20their%20Supervision.pdf)

As highlighted in a 2020 survey conducted among 27 insurers in 16 countries, one-third of respondents cited the most important regulatory barriers related to digital insurance were paper document delivery provisions, insurance distribution regulation, and a lack of tele-health provisions for medical exam procedures.<sup>40</sup> Some countries (e.g. Uganda and Tanzania) have developed separate regulations specific to digital insurance, while others (e.g. Kenya and India) have decided to integrate relevant provisions into existing regulatory and supervisory provisions.

Sixty-one percent of AFI member countries have no specific regulations related to digital insurance while 32 percent have regulations and seven percent are in the drafting process.

**FIGURE 26: COUNTRIES WITH DIGITAL INSURANCE REGULATIONS (N=81)**



### 3.1.3 NBF CROSS-BORDER FINANCIAL TRANSFERS

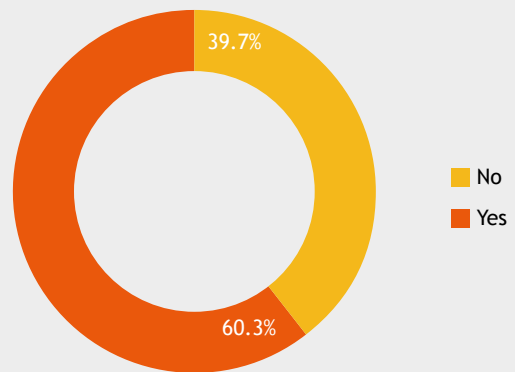
Cross-border financial transfers are critical to business operations in developing countries. More specifically, in the context of financial inclusion, international remittances are of crucial importance to hundreds of millions of people and, in some cases, whole economies. Remittances can represent upwards of 20 percent of GDP in some countries such as Nepal, El Salvador, Gambia, and Liberia.<sup>41</sup>

The promotion of digital channels by non-bank financial institutions (NBFI) is changing the landscape of international money transfers. The increasing penetration of mobile phones and digital financial services and mobile money has brought relevant services to increasingly hard to reach areas and a greater number of people. Aside from expanding access, prices have been lowered. The global average cost for sending remittances was 6.09 percent in the first quarter of 2022, compared to 9.67 percent in 2009. The global average for digital remittances in the first quarter of 2022 was 4.79 percent, while the global

average for non-digital remittances was 6.69 percent, with mobile operators offering the most affordable remittances at an average of 2.87 percent.<sup>42</sup>

Regulators have an important role to play when it comes to cross-border financial transfer regulations. Relevant considerations include AML/CFT, macroeconomic stability and the harmonization of rules and regulations across different countries. Sixty percent of AFI member countries have licensed at least one NBFI to conduct digital cross-border financial transfers or have regulations explicitly allowing such transfers, while 40 percent do not. All Asian countries included in this study have relevant regulations while other countries have fewer in place.

**FIGURE 27: COUNTRIES THAT HAVE LICENSED AT LEAST ONE NBFI TO PROCESS DIGITAL CROSS-BORDER FINANCIAL TRANSFERS OR HAVE REGULATIONS EXPLICITLY ALLOWING SUCH TRANSFERS (N=63)**



## 3.2 DIGITAL BANKING

Digital banks tend to offer a more complete set of services than typical FinTech firms, to a large degree, replicating the role played by traditional banks in the economy while relying heavily on digital distribution channels. While financial institutions are increasingly using digital service delivery channels, digital banks have taken this a step further, completely abandoning physical branch networks. This can enable faster service delivery at a lower cost than traditional banks can offer, in turn, potentially increasing financial inclusion by eliminating the need to access a branch.

40 Geneva Association. 2021. Regulatory Considerations for Digital Insurance Business Models. Available at: <https://www.genevaassociation.org/research-topics/public-policy-and-regulation/digital-insurance-business-models>

41 World Bank. 2022. World Bank staff estimates based on IMF balance of payments data, and World Bank and OECD GDP estimates. Available at: <https://data.worldbank.org/indicator/BX.TRF.PWKR.DT.GD.ZS>

42 World Bank. 2022. Remittance Prices Worldwide. Available at: [https://remittanceprices.worldbank.org/sites/default/files/rpw\\_main\\_report\\_and\\_annex\\_q122\\_final.pdf](https://remittanceprices.worldbank.org/sites/default/files/rpw_main_report_and_annex_q122_final.pdf)

As digital banks have a limited physical presence while simultaneously serving vulnerable customers, regulators must pay special attention to financial inclusion considerations while striking the right balance between enabling innovation and safeguarding market stability and consumer protection. In addition, cybersecurity, data protection and privacy are inherent risks in the digital delivery of financial services, especially in markets where some customers may have low financial literacy. Along the same lines, customer complaint handling and recourse are highly relevant topics for digital bank regulation. Supporting regulation that permits digital signature and the presence of digital ID in a market can further strengthen the regulatory framework that underpins digital banks.<sup>43</sup>

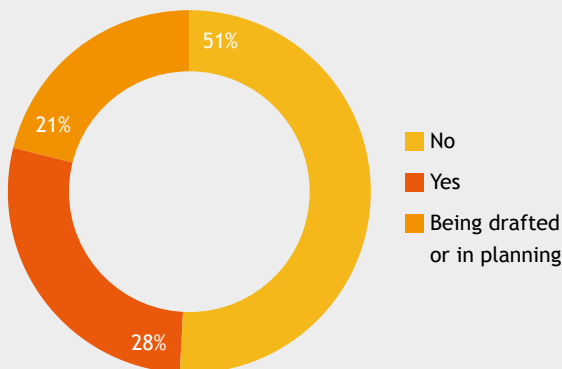


Policy Framework on the Regulation, Licensing and Supervision of Digital Banks

> [View here](#)

Only 17 AFI member countries have introduced digital banking regulations thus far, while 13 are in the drafting process, and 31 have no relevant regulation.

FIGURE 28: DIGITAL BANKING REGULATIONS (N=61)



### 3.3 OPEN FINANCE

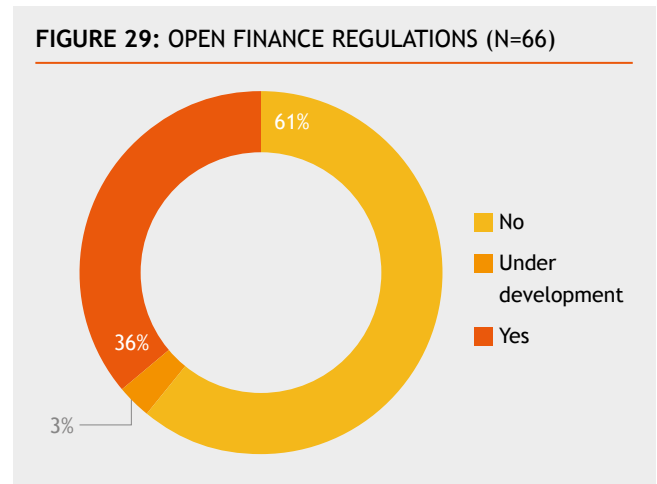
Customers can give their consent, enabling third-party providers such as technology firms, FinTech players, and banks to use their financial information stored at other financial institutions, usually accessed through open application programming interfaces (APIs).

This can benefit customers by allowing greater control and information about their own data, increasing their ability to make more informed financial decisions. Additionally, both consumers and service providers can benefit as consolidated data can be used to make increasingly personalized financial offerings. Customers can be offered tailored products that may represent a better deal, while lenders can simultaneously increase the accuracy of their creditworthiness assessments. All of this can help accelerate digitalization, save costs, and add more flexibility to operations.

Regulators have an important role to play as the absence of comprehensive regulation can leave consumers exposed to risks. This includes considerations related to cybersecurity, digital identity, data governance, and data protection.<sup>44</sup>

Thirty-four AFI member countries have introduced open finance regulations, while at least two are in the drafting process, and 40 countries have no relevant regulations.

FIGURE 29: OPEN FINANCE REGULATIONS (N=66)



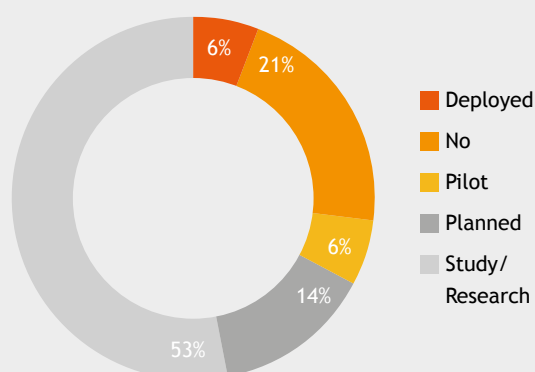
### 3.4 CENTRAL BANK DIGITAL CURRENCIES (CBDCs)

Central bank digital currencies (CBDCs) are a new, but rapidly growing phenomenon, with one of the first national implementations taking place in the Bahamas in late 2020. Only 15 AFI member countries have not yet taken any actions related to CBDCs, 37 are undertaking research to better understand them, while 10 are planning to introduce a CBDC and four are conducting pilot initiatives. Four countries have already deployed CBDC-related technology or announced such a deployment.

<sup>43</sup> For more information, see the AFI Policy Framework on the Regulation, Licensing and Supervision of Digital Banks. This framework provides guidance to regulators and policymakers contemplating relevant strategies with a view to promoting financial inclusion. Available at: [https://www.afi-global.org/wp-content/uploads/2021/11/DFSWG-framework\\_FINAL.pdf](https://www.afi-global.org/wp-content/uploads/2021/11/DFSWG-framework_FINAL.pdf)

<sup>44</sup> For more information, see the AFI Policy Framework on Inclusive Open Finance (forthcoming).

FIGURE 30: CBDC REGULATORY STATUS (N=70)



This strong interest in CBDCs is driven by a range of factors, including the rapid digitalization of economies, push for real-time payments and settlements, and need for more efficient domestic and cross-border payments.<sup>45</sup> Commonly cited reasons for adopting CBDCs include improving financial inclusion; reducing demand for unregulated cryptocurrencies; streamlining current payment systems (access and efficiency); and helping increase the resilience of payments under severe circumstances such as natural disasters.<sup>46</sup>

While it is too early in the implementation experience to assess the contribution of CBDCs to financial inclusion, many of the AFI members initiating pilots or studies in this area have cited the expansion of financial inclusion as one of their key motivations for exploring and testing CBDCs. Countries that have taken regulatory action have a financial inclusion rate of 51-58 percent, while those who have not stand at 44 percent.

**51-58%**

Countries that have taken regulatory action have a financial inclusion rate of 51-58 percent, while those who have not stand at 44 percent.

As CBDC design and application can vary widely, regulators need to carefully consider a wide range of factors when determining what the right fit is for their intended purposes. These include, for example, distribution models, access, and privacy. Overall, when developing a CBDC, regulators may benefit from evaluating the implementation as part of a broader payments toolkit, embracing private sector participation, delivering interoperability, and safeguarding consumers interests.<sup>47</sup>

BOX #13: THE BAHAMAS  
SAND DOLLAR



In late 2020, the Central Bank of The Bahamas launched one of the world's first CBDCs - the 'Sand Dollar'. The intended outcome is that all residents in The Bahamas will have use of a CBDC, on a modernized technology platform, with an experience and convenience that resembles cash. The central bank expects this will allow for reduced service delivery costs, increased transactional efficiency, as well as an improved overall level of financial inclusion.

Although average measures of financial development and access in The Bahamas are relatively high, pockets of the population are excluded because of the remoteness of some communities outside of the cost-effective reach of physical banking services. The central bank considers its CBDC an important step in improving access to payments services, which in turn, would provide the conduit through which other financial services could be more easily reached.

Source: Central Bank of the Bahamas. 2020. Available at: <https://www.centralbankbahamas.com/news/public-notice/the-sand-dollar-is-on-schedule-for-gradual-national-release-to-the-bahamas-in-mid-october-2020?N=C>

3. CRYPTOCURRENCY

The term cryptocurrency refers to digital or virtual assets, where transactions are verified, and records maintained by a decentralized system using cryptography. While traditional currencies are backed by a government and money supply is managed by a central bank, cryptocurrencies are usually not.<sup>48</sup> Blockchain technologies, on which cryptocurrencies are based, promise both more efficient and more affordable money transfers - potentially contributing to increased financial inclusion.

The decentralized nature of cryptocurrencies, however, presents regulators with unique challenges. AML/CFT related considerations are among the most important here, since such technologies enable funds to be moved

45 Deloitte. 2021. Central bank digital currencies: The next disruptor. Available at: <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/financial-services/us-fsi-central-bank-digital-currencies.pdf>

46 IMF. 2022. Behind the Scenes of Central Bank Digital Currency Emerging Trends, Insights, and Policy Lessons. Available at: <https://www.imf.org/en/Publications/fintech-notes/Issues/2022/02/07/Behind-the-Scenes-of-Central-Bank-Digital-Currency-512174>

47 AFI. 2021. Central banks, private sector urge digital currency collaboration. Available at: <https://www.afi-global.org/newsroom/news/central-banks-private-sector-urge-digital-currency-collaboration/>

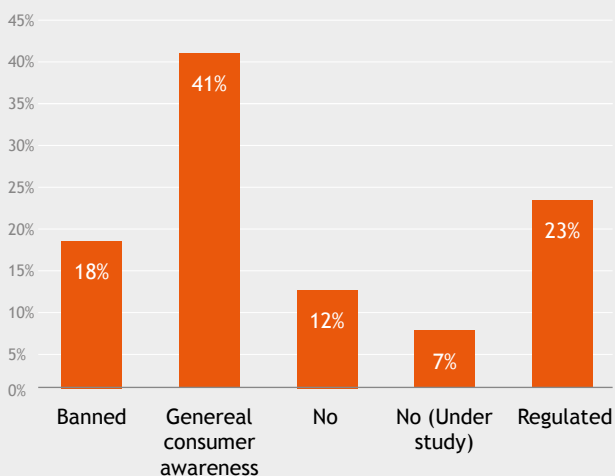
48 Aliénor Burghartz. 2021. Private Digital Currencies and the Promise of Global Financial Inclusion. Available at: <https://www.mcgill.ca/business-law/article/private-digital-currencies-global-financial-inclusion>

rapidly, even across borders, and by use of pseudonyms (e.g. in the case of bitcoin the movement of funds on the blockchain may be traced but the identity of the account owner may not be known).

Since 2018, the Financial Action Task Force (FATF) has formally extended its global AML/CFT standards to cover virtual assets, and all countries are required to take steps to mitigate ML-TF risks arising from cryptocurrencies, for example, requiring virtual asset service providers (VASPs) to be licensed for AML-CFT purposes and conduct KYC checks on customers. In addition, cryptocurrencies lead to unique risks related to both fraud and cyberattacks. In almost all countries, most elements of the consumer protection framework (e.g. redress, deposit insurance etc.) do not currently extend to cryptocurrencies, failing to provide consumer and investor protection.

Regulators in AFI member countries have taken a wide range of different approaches to these issues. Thirteen have directly banned the use of cryptocurrencies, while 30 have issued cautions - usually stating that cryptocurrencies are not legal tender in their jurisdiction and do not, as a result, benefit from government regulations such as those related to consumer protection. Five AFI member countries have yet to take a firm stance, announcing they are currently researching the matter. Seventeen, meanwhile, have taken steps to regulate the use of cryptocurrencies, for example, requiring currency exchanges to acquire licenses, collecting tax on capital gains, or (in one case) going as far as making cryptocurrencies a specific cryptocurrency legal tender. Nine countries have yet to take any regulatory action related to cryptocurrencies.

**FIGURE 31: CRYPTOCURRENCY REGULATORY APPROACHES (N=74)**



#### BOX #14: EL SALVADOR MAKES BITCOIN LEGAL TENDER



El Salvador was the first country in the world to make a cryptocurrency legal tender, introducing the “Bitcoin Law” in September 2021. The regulations provide an option to all small businesses to accept Bitcoin as a medium of exchange for all transactions, as well as a means of payment for taxes and outstanding debts. The government and central bank took active measures to protect customers and small businesses and to increase adoption. For example, small businesses that do not have the necessary technical infrastructure are exempt from accepting payments through Bitcoin. Furthermore, instant conversion from Bitcoin to US dollars is enabled to protect users from exchange rate fluctuations. Additionally, trades in Bitcoin are not subject to capital gains tax.

Alongside this law, the Salvadoran government introduced the “Chivo Wallet”, an app that enables citizens to trade Bitcoin and US dollars and gave all citizens USD30 in Bitcoin. Without any transaction or withdrawal fees, the app enables: Bitcoin transactions; instant conversions between Bitcoin and US dollars; and withdrawals from designated Chivo ATMs. According to official sources, more than two-thirds of the population (of 6.5 million) had downloaded the app by January 2022.

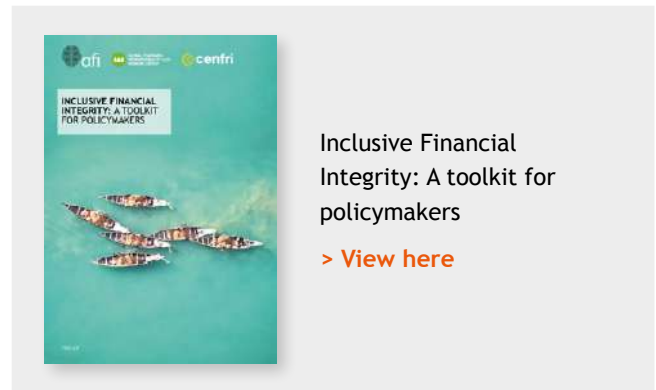
Accounting for over 24 percent of the GDP in 2020, the people of El Salvador are heavily reliant on international remittances, particularly from the United States. Remittances through the Chivo Wallet could potentially contribute to financial inclusion by enabling fast, affordable and convenient cross-border remittances. For its part, the central bank is implementing KYC requirements in accordance with international best practices to mitigate risks specifically related to money laundering and terrorism financing. Although a small proportion of total remittances, official sources indicate that Salvadoreans received USD86 million in remittances through the Chivo Wallet from September 2021 to March 2022. The jury is still out on the potential of cryptocurrencies to advance financial inclusion but El Salvador is leading the way by promoting its adoption and use.

Source: Interview with the Central Bank of El Salvador (June 2022)

## PILLAR 4 INCLUSIVE FINANCIAL INTEGRITY

Technology is borderless. Many emerging FinTech use cases and businesses enable cross-border movement of funds and data, posing AML/CFT and CPF risks. Policies, strategies, and tools for financial integrity are fundamental to financial supervision and an appropriate balance must be struck between protection and financial inclusion considerations.

Regulators need to strike a balance between enabling DFS, inclusion, and integrity. Some chose to play an enabling role to rapidly scale-up DFS through digital identity and eKYC frameworks, while others strengthen AML/CFT and CPF measures with a specific focus on DFS and leverage technology tools for effective supervision. To find the right balance, regulators must take into consideration a wide range of factors, including consumer protection, anti-money laundering, macroeconomic stability, operational efficiency, and more. If the right balance is struck, both the quality and usage of financial services can be increased, in turn, leading to increased financial inclusion.<sup>49</sup>



Inclusive Financial  
Integrity: A toolkit for  
policymakers

> [View here](#)

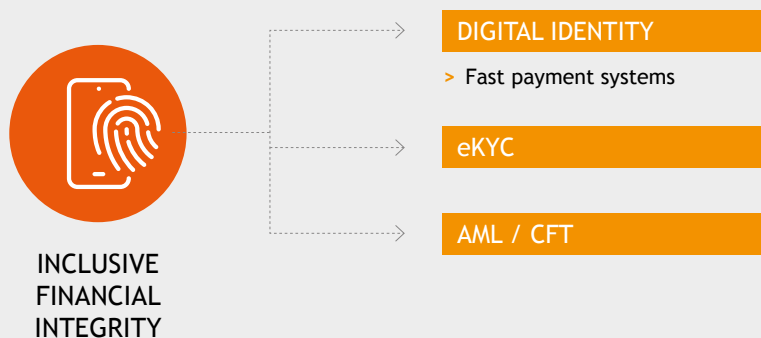
### 4.1 ANTI-MONEY LAUNDERING, COMBATING THE FINANCING OF TERRORISM & COUNTERING PROLIFERATION FINANCING (AML/CFT AND CPF)

The scope and speed of digital financial services development reinforces the need for strong AML/CFT and CPF regulations. More than 200 countries and jurisdictions have committed to implementing the FATF standards. The FATF is a global money laundering and terrorist financing watchdog, which sets international standards that aim to prevent these illegal activities and the harm they cause to society.<sup>50</sup>

49 For more information, see the AFI-CENFRI Inclusive Financial Integrity Toolkit. The toolkit provides practical guidance on aligning financial inclusion and AML-CFT outcomes with respect to the formulation and implementation of related policy and regulation. Available at: <https://www.afi-global.org/publications/inclusive-financial-integrity-a-toolkit-for-policymakers/>

50 Financial Action Task Force. 2022. Who we are. Available at: <https://www.fatf-gafi.org/about/>

FIGURE 32: PILLAR 4: INCLUSIVE FINANCIAL INTEGRITY



In this effort, a risk-based approach (RBA) is encouraged, where “countries, competent authorities and financial institutions are expected to identify, assess and understand money laundering and terrorism financing risks to which they are exposed and take AML/CFT measures commensurate to those risks in order to mitigate them effectively”.<sup>51</sup> Proportionate measures should be taken, where more resources are allocated towards addressing higher-risk areas and fewer resources allocated to lower-risk areas.

Aligning financial inclusion and financial integrity refers to the implementation of effective, risk-based, and proportionate AML/CFT regimes which take account of financial inclusion objectives, and advance financial inclusion and financial integrity agendas together.<sup>52</sup>

The following chapters focus on three AML/CFT related topics: digital identity, eKYC, and tiered KYC. The commonality of regulations under these topics is that they help achieve a balance between financial inclusion and financial integrity. Nearly all (60/69) AFI member countries have regulations related to at least one of these topics.

## 4.2 DIGITAL IDENTITY AND EKYC

Approximately one billion individuals, most of whom live in developing countries, do not have access to officially recognized identification.<sup>53</sup> Aside from being fundamental to participation in political, social, and economic life, this can lead to exclusion from accessing and using formal financial services that are key to people’s livelihoods.

Accurate verification of identity is integral to the KYC processes necessary for compliance with AML/CFT regulations. This concern for financial integrity, however, needs to be balanced with financial inclusion. The inability to access financial services due to a lack of identification is a threat to financial integrity in and of itself, as people are forced to seek their financial services from informal providers in the cash economy. With no formal due diligence, money trails disappear, increasing AML/CFT related risks. Considering this, the FATF emphasizes that the implementation of AML/CFT should not worsen financial exclusion.

Overly rigid KYC requirements that limit the concept of identity to physical documents (such as ID, proof of address, and passport), that are relatively inaccessible to the underbanked and unbanked can lead to financial exclusion. As processes and economic activities become more digitalized, especially those relevant to financially excluded populations, the importance of digital identities has increased.

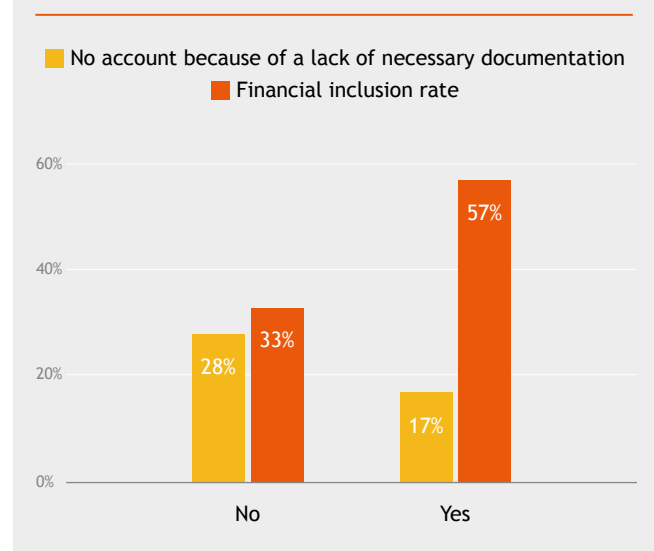
### Digital ID can be defined as

“ a collection of electronically captured and stored identity attributes that uniquely describe a person within a given context and is used for electronic transactions. It provides remote assurance that the person is who they purport to be.”<sup>54</sup>

”

Forty-six percent of AFI member countries have specific regulatory provisions for digital ID, 28 percent do not, while 25 percent have plans underway for such provisions. When asked about their reasons for not having a financial institution account, Findex respondents in AFI countries with digital ID regulations are less likely to cite the lack of necessary documentation<sup>55</sup> as one of their reasons - 17 percent compared to 28 percent. The average financial inclusion rate in countries with no plans or provisions is 33 percent, compared to 57 percent in countries with regulations.

FIGURE 33: DIGITAL ID AND FINANCIAL INCLUSION



51 Financial Action Task Force. 2014. Guidance for a Risk Based Approach: The Banking Sector. Available at: <http://www.fatf-gafi.org/media/fatf/documents/reports/RiskBased-Approach-Banking-Sector.pdf>

51 Alliance for Financial Inclusion. 2020. Inclusive Financial Integrity: A Toolkit for Policymakers

52 Available at: <https://www.afi-global.org/publications/inclusive-financial-integrity-a-toolkit-for-policymakers/>

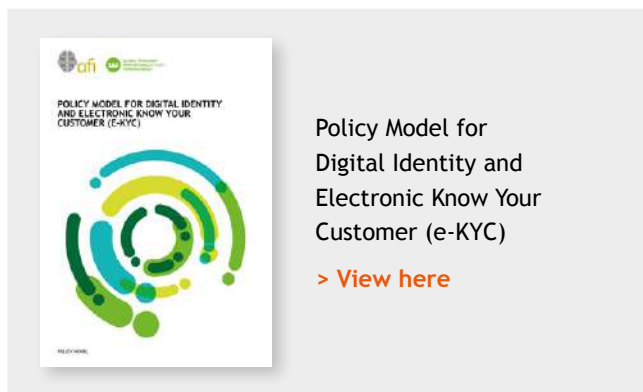
53 World Bank. 2018. The global identification challenge: Who are the 1 billion people without proof of identity? Available at: <https://blogs.worldbank.org/voices/global-identification-challenge-who-are-1-billion-people-without-proof-identity>

54 World Bank. 2018. G20 Digital Identity Onboarding. Available at: <https://openknowledge.worldbank.org/handle/10986/30484>

55 Such as an identity card, a wage slip, or the like.

The introduction of digital ID can help reduce fraud as more advanced forms of identification makes forgery more difficult. Digital ID can also help simplify KYC/CDD by streamlining time-consuming, costly, and cumbersome onboarding processes. This can reduce operational costs, in turn, allowing service providers to operate in lower populated, remote, or excluded areas. The entire process can be simplified to the extent that it is conducted electronically, from start to finish.

Regulators play a key role as legal certainty is critical in embarking on electronic ID and eKYC programs. Relevant regulatory considerations include AML/CFT compliance, electronic signatures, and consumer protection, not to mention the harmonization and integration of various identity databases with data privacy and security at the core.<sup>56</sup>



# 55%

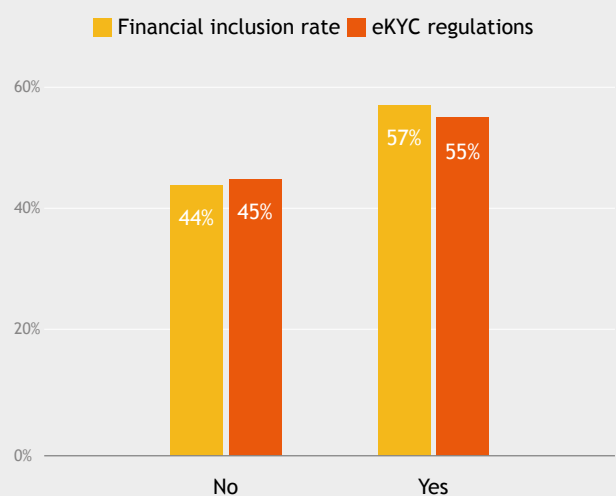
Fifty-five percent of AFI member countries have eKYC regulations, 45 percent do not, while 92 percent of Asian countries have eKYC regulations - much higher than other regions.

When asked about their reasons for not having a financial institution account, Findex respondents in AFI countries with eKYC regulations are less likely to cite the lack of necessary documentation<sup>57</sup> to open an account as one of their reasons - 17 percent compared to 21 percent.

# 57%

Countries with relevant regulations have a higher average financial inclusion rate than others - 57 percent compared to 44 percent.

**FIGURE 34: eKYC AND FINANCIAL INCLUSION**



### BOX #15: PAKISTAN'S NADRA SYSTEM



After its inception in 2000, Pakistan's National Database & Registration Authority (NADRA) rapidly gained global recognition for achievements in streamlining the identification of more than 120 million adults (96 percent of the total adult population) who enrolled in the service. Having evolved into a leading eKYC system, NADRA allows citizens to register for their Computerized National Identity Card (CNIC) and other specialized identity documents, comprised of a 13-digit unique ID, a photograph of the person, their signature, and a microchip that contains the iris scans and fingerprints of users. NADRA has facilitated the development of eKYC solutions in Bangladesh, Nigeria, Sudan, Kenya and Fiji.

To further support financial inclusion, the State Bank of Pakistan (SBP) and Pakistan Telecommunication Authority (PTA) developed the Asaan Mobile Account (AMA) platform, which launched in December 2021 to enable the unbanked to digitally open their branchless banking accounts through the eKYC facility of the CNIC.

In less than a year and as of 10 October 2022,<sup>58</sup> the following results have been achieved:

- > 5,753,459 accounts opened
- > 7.02 million transactions completed
- > 42.83 billion rupees transacted
- > 20.05 million non-financial transactions

<sup>56</sup> For more information, see the AFI's Policy Model for Digital Identity and Electronic Know Your Customer (E-KYC). Available at: [https://www.afi-global.org/wp-content/uploads/2021/09/AFI\\_GSP\\_digital-ID\\_eKYC\\_PM.pdf](https://www.afi-global.org/wp-content/uploads/2021/09/AFI_GSP_digital-ID_eKYC_PM.pdf)

<sup>57</sup> Such as an identity card, a wage slip, or similar.

<sup>58</sup> More information is available at: <https://www.sbp.org.pk/Finc/AMAScheme.html>



### 4.3 SIMPLIFIED KYC

In the interest of financial inclusion, regulators increasingly employ a simplified or tiered KYC approach where customers are allowed to open certain types of accounts with less stringent KYC requirements. Under this model, requirements may be relaxed for the types of identification permitted, the required information, documentation, levels of assurance (degree to which an identity claim is backed-up), and the retention of records. Service providers then offset any residual risk caused by gathering less information on their customers by placing restrictions on accounts that seek to limit their risk in an AML/CFT context. These restrictions typically include maximum account balance, transaction value and volume limits or transaction types (domestic and international, purchases, withdrawals, etc.).<sup>59</sup>

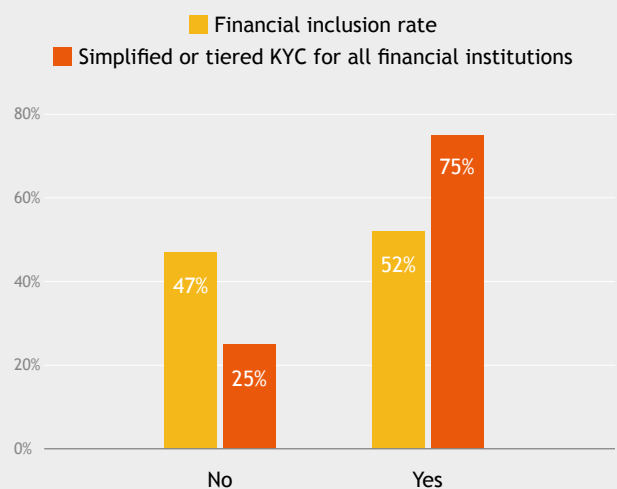
Under the FATF risk-based approach, regulators are encouraged to conduct regular national, sectoral, and institutional level risk assessments which should inform the development of risk-based tiered KYC. This can help ensure that KYC requirements are proportionate to the assessed level of risk, including consideration of reduced requirements where risks are believed to be lower. This can help promote financial inclusion, as lower-risk geographies and populations can be identified with proportionate KYC requirements applied.<sup>60</sup>

# 75%

A growing number of countries have enacted simplified KYC requirements in recent years, with at least 75 percent of AFI member countries allowing simplified or tiered KYC for all financial institutions.

When asked about their reasons for not having a financial institution account, Findex respondents in AFI countries with simplified KYC requirements are less likely to cite the lack of necessary documentation<sup>61</sup> as one of their reasons - 18 percent compared to 22 percent. The average financial inclusion rate in these countries is 52 percent compared to 47 percent in other countries.

**FIGURE 35: SIMPLIFIED KYC AND FINANCIAL INCLUSION**



#### BOX #16: THE POSITIVE EFFECTS OF SIMPLIFIED KYC IN MEXICO



In August 2011, Mexico approved a tiered scheme for opening deposit accounts at credit institutions. This scheme implemented risk-based account opening requirements for low-value accounts where requirements increase progressively as restrictions on transactions and channels are eased.

During the first two years after the scheme was introduced, the number of bank accounts in the country increased by an astounding 14 percent - or by 9.1 million. Of these newly opened accounts, 77 percent were accounts with simplified due diligence. Highlighting the positive effect on financial inclusion, a further 50 percent of these were 'level 1' accounts - those with the least stringent KYC requirement and lowest transaction limits.

Source: CGAP, 2013 - Mexico's Tiered KYC: An Update on Market Response<sup>62</sup>

59 GSMA. 2019. Overcoming the Know Your Customer hurdle: Innovative solutions for the mobile money sector. Available at: <https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2019/02/Overcoming-the-KYC-hurdle-Innovative-solutions-for-the-mobile-money-sector.pdf>

60 Alliance for Financial Inclusion. 2021. Policy Model for Digital Identity and Electronic Know Your Customer (e-KYC). Available at: <https://www.aifi-global.org/publications/policy-model-for-digital-identity-and-electronic-know-your-customer-e-kyc/>

61 Such as an identity card, a wage slip, or something similar.

62 CGAP. 2013. Mexico's Tiered KYC: An Update on Market Response. Available at: <https://www.cgap.org/blog/mexicos-tiered-kyc-update-market-response>

# PILLAR 5 PROTECTION AND PRIVACY

Policies that protect customers from the risk of monetary loss or data infringement are the key to building a trusted and reliable digital regulatory framework. Although the conditions of consumer and data protection may differ from one country to another, the need to assert the rights of consumers and institutions is fundamental. It is even more important today with the digitalization of financial products and services.

Therefore, it is worth analyzing how various regulatory bodies adapt legislation to the evolution of DFS and how various parties consider the specific problems of the most vulnerable consumers, mainly women and youth. Innovations in digital finance can come with high risks for low-income and rural women - who are more at risk due to low levels of digital literacy and financial skills.<sup>63</sup> The requirements of adequate financial education have been confirmed over time. Having good financial skills allows clients to make informed decisions when it comes to managing their finances and their financial autonomy. Within AFI, the DFSWG and Consumer Empowerment and Market Conduct (CEMCWG) working groups have made this a major topic, as shown by the various knowledge products published in 2021. They reflect the importance and the need, for regulators and state bodies, to be suitably equipped to develop strategies in favor of financial education.<sup>64</sup>



Digital financial literacy toolkit  
> [View here](#)

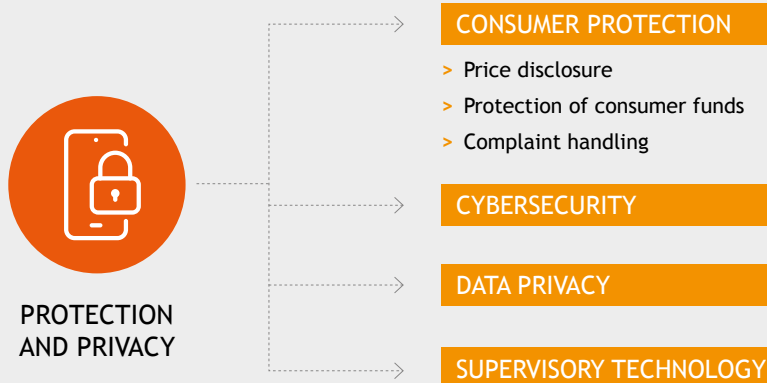


National Financial Education Strategies Toolkit  
> [View here](#)

63 CGAP. 2022. The Evolution of the Nature and Scale of DFS Consumer Risks A Review of Evidence. Available at: [https://www.cgap.org/sites/default/files/publications/slidedeck/2022\\_02\\_Slide\\_Deck\\_DFS\\_Consumer\\_Risks.pdf](https://www.cgap.org/sites/default/files/publications/slidedeck/2022_02_Slide_Deck_DFS_Consumer_Risks.pdf)

64 Alliance for Financial Inclusion. 2021. Digital Financial Literacy Guideline Note. Available at: [https://www.afi-global.org/wp-content/uploads/2021/05/AFI\\_Guideline45\\_Digi\\_Finance\\_Literacy\\_aw5.pdf](https://www.afi-global.org/wp-content/uploads/2021/05/AFI_Guideline45_Digi_Finance_Literacy_aw5.pdf); Alliance for Financial Inclusion. 2021. Digital financial literacy toolkit. Available at: [https://www.afi-global.org/wp-content/uploads/2021/07/AFI\\_DFS\\_Literacy\\_Toolkit\\_V5\\_29July.pdf](https://www.afi-global.org/wp-content/uploads/2021/07/AFI_DFS_Literacy_Toolkit_V5_29July.pdf); Alliance for Financial Inclusion. 2021. National Financial Education Strategies Toolkit. Available at: <https://www.afi-global.org/publications/national-financial-education-strategies-toolkit/>

FIGURE 36: PILLAR 5: PROTECTION AND PRIVACY

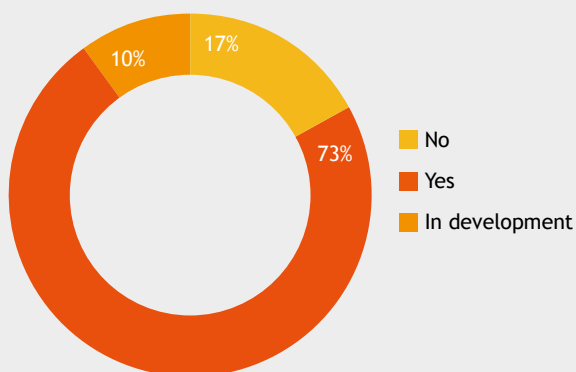


## 5.1 CONSUMER PROTECTION

Assessing the measures taken to anticipate or mitigate the risks related to the protection of consumers and their funds is fundamental to DFS regulation. The adoption of regulations in favor of consumer protection helps to strengthen customer confidence. It, therefore, promotes the development of a stable financial system because of this relationship of trust that is established between the players in the ecosystem and consumers. Several organizations have developed tools (policy models, frameworks, etc.) to support decision-makers in instituting guidelines for service providers.<sup>65</sup> These concepts need to be embedded in regulations that can translate to the best and most effective implementation. Institutions, such as the European Banking Authority, are committed to fostering consumer protection in financial services by addressing the problems that consumers may suffer in their relationship with financial institutions.

Almost all AFI member countries have regulations addressing consumer protection (69/79: 87 percent), while six members (eight percent) are in the process of developing one. The most common practice among AFI members is to regulate consumer protection for digital financial services (CP4DFS) within the wider consumer protection framework for financial services, complemented by consumer protection provisions in ancillary DFS-specific regulations. However, few countries have a specific consumer protection framework for DFS. Among AFI members, 73 percent (46/63) regulate CP4DFS.

FIGURE 37: CONSUMER PROTECTION POLICIES (N=63)



Regulators commonly impose measures such as obligating financial service providers (FSPs) to make their pricing conditions available and accessible to all customers. In the financial market, governments and consumer protection agencies are increasingly requiring mandatory price reporting. Consumers can

### BOX #17: DEVELOPING CONSUMER PROTECTION RULES FOR DFS IN MADAGASCAR



Madagascar is in the process of drafting its consumer protection rules for DFS. After an assessment in 2016, which reported on the measures to be strengthened in terms of the regulatory framework, the regulatory and state institutions of Madagascar have undertaken activities that have resulted in various directives encouraging the development of the digital finance sector. With technological innovation in finance engendering new risks, regulatory authorities became compelled to address the issue of consumer protection. It is, therefore, a theme of axis 1 of Madagascar's National Strategy for Financial Inclusion.

Led by the Banking Supervision Commission with the support of the Coordination for Inclusive Finance, the project to strengthen the regulatory framework benefited from the technical assistance of the World Bank. A consulting firm conducted a study, based on the international standards in force and the local context of Madagascar, to inform the development of DFS consumer protection rules. The Banking Supervision Commission shared its desire to adopt a collaborative approach. All of the players in the sector concerned were invited to give their feedback on the action plan and definition of projects to be carried out.

#### Objectives

- > Compliance
- > Harmonization of all consumer protection measures in the different laws
- > Effectiveness of the rules (active implementation by members)
- > Effectiveness of digital financial service providers

#### Next steps

- > Formalization of the DFS consumer protection regulations including guidelines on the overall effective rate, transparency, recourse, and complaints.
- > Validation by the Banking Supervision Commission then the Council of Ministers

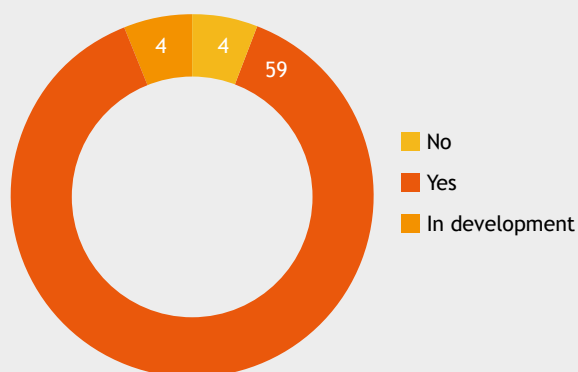
Source: Interview with representatives from the Central Bank of Madagascar and Ministry of Economy and Finance of Madagascar who are part of the National Coordination for Inclusive Finance (June 2022).

65 Alliance for Financial Inclusion. 2021. Policy model on consumer protection for digital financial services. Available at: [https://www.afi-global.org/wp-content/uploads/2020/09/AFI\\_CEMCDFS\\_PM\\_AW4\\_digital.pdf](https://www.afi-global.org/wp-content/uploads/2020/09/AFI_CEMCDFS_PM_AW4_digital.pdf)

then compare the offers of companies more easily. Some publications (Lahaye, and Koning 2011; CGAP 2012) show the link between the transparent provision of formal financial services and its use by customers.<sup>66</sup> They demonstrate that access to as much information as possible by clients concerning financial services reinforces usage because of the reduction in risk for people with a low level of education and low financial capacity. Within the AFI network, 60 members have regulations or drafts requiring price disclosures while five do not.

Another consumer protection obligation relates to the right of customers to remedy and redress complaints. Appropriate regulations, therefore, require DFS providers to put in place mechanisms to handle complaints, from both customers and merchants. These systems must be accessible through several channels of communication. Providers should also track all complaints that are received and processed, and set timelines for their resolution. Consumer recourse and redress procedures are one of the four priorities retained by the AFI CEMCWG.<sup>67</sup> In fact, developing a recourse system for DFS customers not only enhances the quality of the services provided - due to continuous improvements based on the feedback received - it also contributes to increasing consumer confidence.<sup>68</sup> This regulatory obligation was adopted by a significant majority of members (59/67: 88 percent).

**FIGURE 38: MEMBER COUNTRIES WITH REGULATIONS REQUIRING ACCESS TO RECOURSE AND COMPLAINT PROCEDURES (N=67)**



In many cases, policies include specific measures for the protection of customer funds held as e-money. In some cases, regulations require insurance protection for depositors from banks and non-banks. In addition to the direct application of deposit insurance, some jurisdictions may indirectly extend deposit insurance specifically to electronic money activity, with customers

able to receive compensation from the trust accounts that e-money issuers are required to hold with banking institutions. Sometimes referred to as “pass-through” deposit insurance, this risk management strategy is aimed at protecting client funds in the event of a failure of a financial service provider. As with the previously mentioned measures, the final objective is to strengthen the confidence of consumers in the formal financial system by anticipating risks and offering transparency and guarantees, so they feel assured when adopting and using the digital financial services being offered.

There are generally two scenarios for non-banks: countries that have extended deposit insurance to individual e-money accounts directly, and those that do so indirectly.<sup>69</sup> The direct approach is to ensure the individual e-money accounts offered by the e-money issuer are up to the limit provided by the regulatory system. Obviously, in this case, the regulations allow e-money issuers to be included in the deposit insurance system as financial institutions are authorized to offer deposit services (including cash-in). Regarding the indirect approach, the issuer of electronic money places the funds collected (from the individual accounts) in a global deposit account with an insured deposit institution (member of the deposit insurance system). The insurance terms of this mutualized deposit account are then allocated to the electronic money accounts of the individuals.

74%

Seventy-four percent (60/81) of AFI members have implemented deposit insurance schemes for banks, with four percent (3/81) in the regulation’s development process.

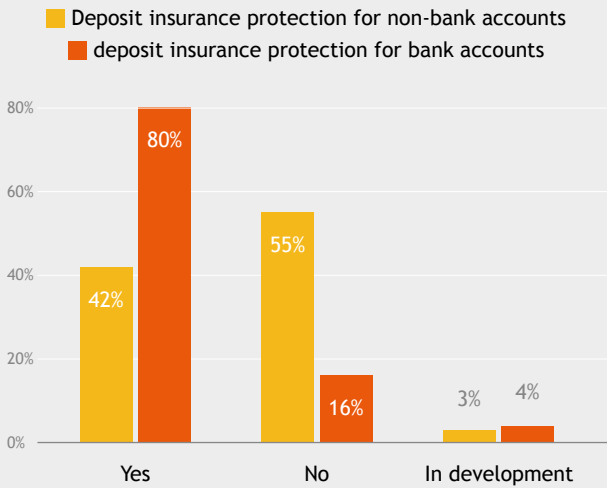
Also, only 42 percent are extending deposit insurance to non-banks. The Pacific is the only region with no country addressing the matter of regulations for both banks and non-banks.

66 CGAP. 2012. Designing Disclosure Regimes for Responsible Financial Inclusion. Available at: <https://www.cgap.org/sites/default/files/publications/Focus-Note-Designing-Disclosure-Regimes-for-Responsible-Financial-Inclusion-Mar-2012.pdf>

67 Alliance for Financial Inclusion. 2011. AFI launches consumer empowerment & market conduct working group. Available at: <https://www.afi-global.org/newsroom/news/working-group-launched-on-consumer-empowerment-and-market-conduct/>

68 CGAP. 2013. Making Recourse Work for Base-of-the-Pyramid Financial Consumers. Available at: [https://www.cgap.org/sites/default/files/researches/documents/Focus-Note-Making-Recourse-Work-for-Base-of-the-Pyramid-Financial-Consumer-Dec-2013\\_1.pdf](https://www.cgap.org/sites/default/files/researches/documents/Focus-Note-Making-Recourse-Work-for-Base-of-the-Pyramid-Financial-Consumer-Dec-2013_1.pdf)

70 CGAP. 2019. Insurance treatment of e-money. Available at: [https://www.cgap.org/sites/default/files/publications/2019\\_10\\_Technical\\_Note\\_Deposit\\_Insurance\\_Treatment\\_EMoney\\_0.pdf](https://www.cgap.org/sites/default/files/publications/2019_10_Technical_Note_Deposit_Insurance_Treatment_EMoney_0.pdf)

**FIGURE 39: DEPOSIT INSURANCE AND FINANCIAL INCLUSION**

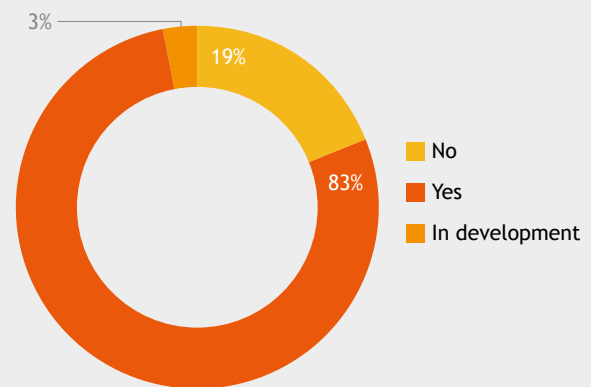
## 5.2 CYBERSECURITY

Cybersecurity is fundamental for preserving the economic growth and national security of countries. The increased interconnection of systems and devices is accompanied by increased exposure to cybercrime. Over the past few years, ransomware, scams, malware, and website and software vulnerabilities have been particularly significant.<sup>70</sup> Cybercrime via social engineering and phishing through mobile devices is an especially troubling problem for regulators and consumers alike. Cybercriminals use mobile devices to carry out advance-fee fraud via Short Message Service (SMS) text messages, phone calls, or email messages to trick victims into sharing banking details and other personal information.

Lack of awareness is one of the biggest challenges to passing and implementing cybersecurity strategies, policies, laws, and regulations. Most of the legislation on cybercrime draws on the Council of Europe's "Budapest Convention"<sup>71</sup> on Cybercrime. The Budapest Convention on Cybercrime, which opened for signature in 2001, is the only international convention on cybercrime that has been ratified. Within the scope of digital finance, regulations protecting financial systems from cyber threats are related to technology infrastructure, cloud computing, penetration testing, business continuity planning, etc. Clarity of the legal institutions and frameworks responsible for cybersecurity and cybercrime and the interrelation of these regulations to the broader legal context is the key to building robust defenses against these evolving threats. Strong cybersecurity measures can help promote financial inclusion. According to Tsilavo Haja Ralaindimby from the banking supervisory

commission of the Central Bank of Madagascar, "People feel more confident about accessing formal financial services when they feel protected."<sup>72</sup>

Within the AFI network, the majority of member countries (52/67: 78 percent) have specific security requirements within existing regulations related to DFS with two countries in the development phase.

**FIGURE 40: CYBERSECURITY REGULATIONS RELATED TO DFS**

## 5.3 DATA PRIVACY

Data is increasingly used in the provision of financial services. Indeed, whether for digital lending scoring or to segment customers and offer alternative channels, financial and non-financial data is a gold mine for players in the sector. In addition, the growing success of innovative customer research methods, such as the human-centered design (HCD) approach, has led to a growing interest in non-financial (non-classical) data covering leisure, ease with digital devices, the home environment, values, and aspirations.

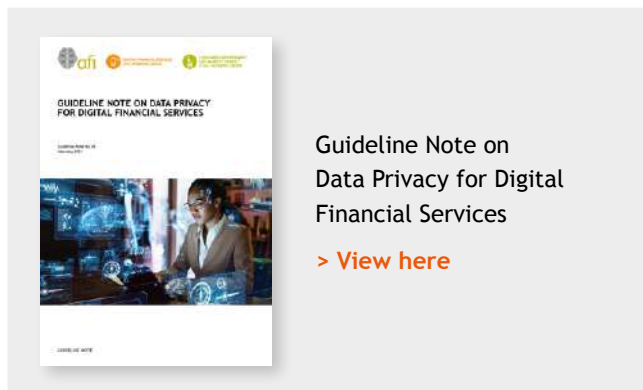
Data privacy is, therefore, crucial for the safety and well-being of citizens. Accordingly, a strong regulatory basis that ensures FSPs systematically ask for an individual's consent is required. Whether to use or share data, customers should be clearly informed about how providers will use their data and for what purpose. This is a subject addressed by AFI in its recent Guideline Note on Data Privacy for Digital Financial Services.<sup>73</sup>

70 UN. 2021. Open-ended working group on developments in the field of information and telecommunications in the context of international security. Available at: <https://front.un-arm.org/wp-content/uploads/2021/03/Final-report-A-AC.290-2021-CRP.2.pdf>

71 Council of Europe. 2022. The Budapest Convention (ETS No. 185) and its Protocols. Available at: <https://www.coe.int/en/web/cybercrime/the-budapest-convention>

72 Quote from an interview conducted in June 2022.

73 Alliance for Financial Inclusion. 2021. Guideline Note on Data Privacy for Digital Financial Services. Available at: [https://www.afi-global.org/wp-content/uploads/2021/02/AFI\\_GN43\\_AW3\\_digital.pdf](https://www.afi-global.org/wp-content/uploads/2021/02/AFI_GN43_AW3_digital.pdf)



Guideline Note on  
Data Privacy for Digital  
Financial Services

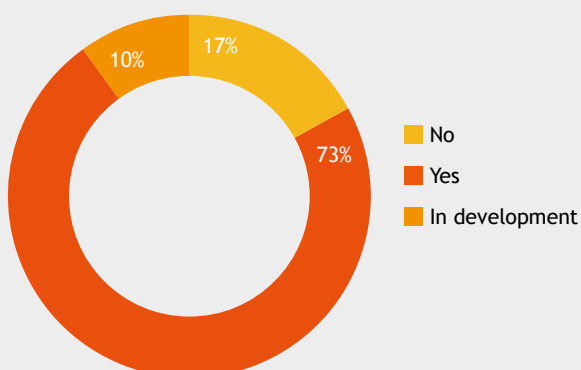
> [View here](#)

The expansion of cyberspace is creating ever greater concerns about personal data breaches. The sharing or sale of personal data without consent can also cause significant harm to individuals. Data privacy should also consider the permission for use of cloud computing, data offshoring, and the outsourcing of data management to third parties.<sup>74</sup>

Government commitment to data privacy differs per country. A study published in 2020<sup>75</sup> shows that in some AFI member countries, such as Angola, Mozambique, Seychelles, and Tunisia, the constitutional arrangements of data protection are very different. In Angola, the constitution requires the parliament “to enact data protection laws without further instructions regarding the content of these laws”. On the other hand, the constitutions of Seychelles and Mozambique do not stop at the simple mandate. Indeed, their constitutions codify and guarantee the protection of data in terms of right of access and the prohibition of processing of sensitive data. In Mozambique, it also addresses the right to rectification of inaccurate data. The Tunisian constitution, in turn, specifies the protection of personal data and protection of privacy as fundamental rights.

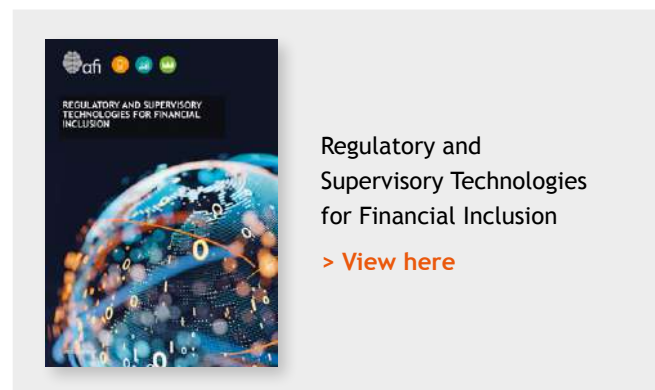
Most AFI member countries have addressed data privacy in their regulatory frameworks (64/78: 82 percent including the draft regulations).

FIGURE 41: DATA PRIVACY REGULATIONS (N=78)



## 5.4 SUPERVISORY TECHNOLOGY

Advances in supervisory technology (suptech) can play an important role in improving the supervision of DFS by providing regulators with accessible data on financial products, services, access, and financial flows. Analyzing the maturity or presence of suptech can provide insights into the overall indicators of the success of DFS in the market, as developed in the AFI regulatory and supervisory technologies for financial inclusion publication.<sup>76</sup>



Regulatory and  
Supervisory Technologies  
for Financial Inclusion

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Market regulators and public authorities have turned to suptech tools and solutions to improve their surveillance, analytical, and enforcement capabilities, which can, in turn, have important benefits for financial stability, market integrity, and consumer welfare.

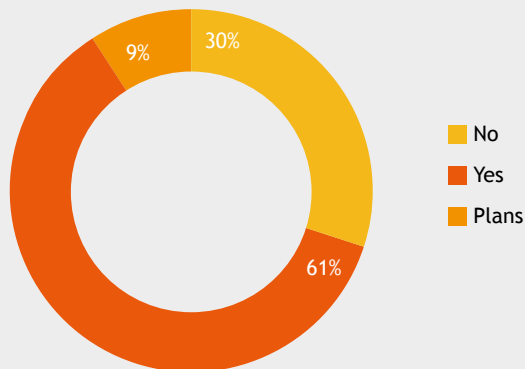
Suptech solutions have the potential to alleviate the regulatory burden on regulated entities, which have themselves turned to regulatory technology (regtech) tools to improve compliance outcomes against regulatory requirements and enhance risk management capabilities. Such solutions hold the potential to reduce costs related to compliance, data collection, and risk management.

Although this is an under-addressed topic and certainly still under exploration for many (20/66: 30 percent), 40 member countries (61 percent) have already implemented regtech or suptech solutions with six countries (9 percent) planning to do so.

74 Global Jurist Topics. 2006. Offshore Outsourcing - How Safe is Your Data Abroad? Overview of Privacy, Data Protection and Security. Available at: [https://www.researchgate.net/publication/247872213\\_Offshore\\_Outsourcing\\_-\\_How\\_Safe\\_is\\_Your\\_Data\\_Abroad\\_Overview\\_of\\_Privacy\\_Data\\_Protection\\_and\\_Security](https://www.researchgate.net/publication/247872213_Offshore_Outsourcing_-_How_Safe_is_Your_Data_Abroad_Overview_of_Privacy_Data_Protection_and_Security)

75 Graham Greenleaf and Bertil Cottier. 2020. Comparing African Data Privacy Laws: International, African and Regional Commitments. Available at: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3582478](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3582478)

76 Alliance for Financial Inclusion. 2022. Regulatory and supervisory technologies for financial inclusion. Available at: [https://www.afi-global.org/wp-content/uploads/2022/02/RegTech\\_SupTech\\_special\\_report\\_isbn.pdf](https://www.afi-global.org/wp-content/uploads/2022/02/RegTech_SupTech_special_report_isbn.pdf)

**FIGURE 42: MEMBER COUNTRIES WITH REGTECH OR SUPTECH SOLUTIONS (N=66)**

One use of suptech is to support the automated reporting of financial data. Data collection relevant to regulated financial service providers and the financial ecosystem is done automatically from complex databases. This information allows regulators to assess micro and macroprudential risks. Another example of the use of suptech is the Regulatory Information and Workflow Management System (RIS). Automated workflow management significantly reduces response times, and the use of RIS workflows makes it possible to automate the activities of regulators, such as licensing, supervision, compliance of financial service providers, and the monitoring of prudential reports, for example. This solution has been implemented, in particular, in Ghana, the Philippines, Thailand, and Malaysia.<sup>77</sup>

By using tools to analyze the increasing volume of structured and unstructured data, authorities can stay abreast of changes in the market and shift their focus from labor-intensive tasks toward activities requiring human judgment and expertise, thus, allocating human resources more efficiently and perhaps reducing costs over time.

#### BOX #18: NEPAL RASTRA BANK (NRB)'S FINANCIAL INCLUSION PORTAL



In the aftermath of the massive earthquakes in Nepal in 2015, Nepalese monetary policy envisaged the creation of an e-mapping portal to identify the status of financial access through a few indicators like branch networks, branchless banking, and mobile banking, among others. Nepal Rastra Bank (NRB) had a data reporting portal, but its capacity was not capable of collecting data from diverse indicators and could not address basic questions, such as information on basic access points, primarily for electronic or cash voucher distribution to earthquake victims. In response, with technical and financial support from the

United Nations Capital Development Fund (UNCDF), NRB upgraded its reporting portal and introduced an e-map or financial inclusion reporting portal. The e-map,<sup>78</sup> NRB's web-based financial inclusion dashboard, was built with the help of Dundas BI, an enterprise-level business intelligence platform, which subsequently led to the official launch of the Financial Inclusion Portal (FIP) in September 2018.

#### Objectives of the portal

The portal, which aims to monitor financial inclusion indicators and provide access to financial inclusion data to various stakeholders, including the public, captures financial services infrastructure in the form of geospatial maps with locations in latitude and longitude terms. Infrastructure points are comprised of bank branches, ATMs, branchless banking centers, etc. The platform helps NRB identify underserved geographies and literally gives a picture of the level of inclusion. And by identifying the extent of financial inclusion, it helps to develop and target new policy instruments to spread financial services, and assists banks and financial institutions in penetrating their services at the local level by analyzing the relevant financial indicators shown in the portal.

#### Way forward for enhancing the e-map

NRB developed an advanced web-based system called the Supervisory Information System (SIS) for data collection, compilation, and report generation purposes with financial support from the United Kingdom's Foreign Commonwealth and Development Office. The SIS will gradually replace the existing NRB reporting data collection portal, the data input source of the financial inclusion portal will first be disassociated with the existing reporting system and then integrated into SIS. With SIS, a huge data repository will be available and new financial inclusion-related indicators can be added to the existing financial inclusion portal.

Source: Interview with Nepal Rastra Bank (2022).

Authorities can leverage big data architecture to perform real-time market surveillance. Securities regulators have started to use data science to interpret large datasets and identify patterns to detect insider trading and market manipulation. However, designing and implementing tools focused on certain aspects of market surveillance can be complex due to the large volume and variety of data required as well as the need for highly specialized data engineering and data science skills.

<sup>77</sup> World Bank. 2020. A Roadmap to SupTech Solutions for Low Income (IDA) Countries. Available at: <https://documents1.worldbank.org/curated/en/108411602047902677/pdf/A-Roadmap-to-SupTech-Solutions-for-Low-Income-IDA-Countries.pdf>

<sup>78</sup> The e-map is available at: <https://emap.nrb.org.np/>

# CONCLUSION

This report represents the current state of practice of AFI member countries, however, its very nature and the speed of innovations driving regulatory changes will necessitate future updates and revisions.

The commitment and interest of AFI member countries in the digitization of financial services demonstrates that DFS is a lever with a significant impact on financial inclusion. Building a regulatory environment that is conducive to innovation and which protects institutions and consumers is a precursor to strengthening the use and adoption of financial services, particularly by the most vulnerable populations.

This report provides some indications, where appropriate, on the nature of financial inclusion in various countries. At the same time, it is nearly impossible to attribute increased financial inclusion to any single policy or even set of policies. After our review of the members and these

33 indicators, it is clear that the state of practice for DFS regulations is emerging and constantly evolving. Some areas can be seen as foundational, such as the need for national financial inclusion, FinTech and payment system strategies. Others are more transformative like digital identity and e-KYC, while CBDC and cryptocurrencies are emerging and may pose new opportunities and challenges for regulators globally.

This report, therefore, provides an important snapshot in time, demonstrating how regulators in AFI member countries are working to meet the challenges of developing a regulatory framework conducive to financial inclusion. As this work continues and evolves, the vision of AFI's DFSWG is for this study to provide a strong basis for further follow up and robust analysis allowing members within the network to gain clear visibility of the regulatory gaps - and to then come up with appropriate interventions.





## ACRONYMS

<b>AFI</b>	Inclusion
<b>AML</b>	Anti-Money Laundering
<b>BNPL</b>	Buy Now Pay Later
<b>CBDC</b>	Central Bank Digital Currency
<b>CBSI</b>	Central Bank of Solomon Islands
<b>CDD</b>	Customer Due Diligence
<b>CFT</b>	Combating of Financing of Terrorism
<b>CP4DFS</b>	Consumer Protection for Digital Financial Services
<b>DFI</b>	Development Finance International
<b>DFS</b>	Digital Financial Services
<b>EECA</b>	Europe and Central Asia
<b>EU</b>	European Union
<b>eKYC</b>	Electronic Know Your Customer
<b>FCA</b>	Financial Conduct Authority
<b>FPS</b>	Fast Payment System
<b>FSP</b>	Financial Service Provider
<b>FATF</b>	Financial Action Task Force
<b>GIF</b>	Gender Inclusion Finance
<b>ICI</b>	In-Country Implementation
<b>ITU</b>	International Telecommunication Union
<b>KYC</b>	Know Your Customer
<b>MENA</b>	Middle East and North Africa
<b>MFI</b>	Microfinance Institution
<b>MNO</b>	Mobile Network Operator
<b>MOU</b>	Memorandum of Understanding
<b>NBFI</b>	Non-Bank Financial Institution
<b>NCS</b>	National Cybersecurity Strategy
<b>NFIS</b>	National Financial Inclusion Strategy
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>LAC</b>	Latin America and the Caribbean
<b>PAC</b>	Pacific
<b>PAN</b>	Payment Association of Namibia
<b>SBP</b>	State Bank of Pakistan
<b>SIM</b>	Subscriber Identity Module
<b>SMS</b>	Short Message Service
<b>SRO</b>	Self-regulatory Organizations
<b>SSA</b>	Sub-Saharan Africa
<b>SWOT</b>	Strengths, Weaknesses, Opportunities, and Threats analysis
<b>WG</b>	Working Group

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