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**A REGULATORY DIAGNOSTIC TOOLKIT FOR
DIGITAL FINANCIAL SERVICES IN EMERGING
MARKETS**

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A Regulatory Diagnostic Toolkit for Digital Financial Services in Emerging Markets

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Digital financial services (DFS) present an unprecedented opportunity to improve financial inclusion and economic development. However, these innovative services can prove challenging for regulators, particularly in developing countries. This article proposes a comprehensive analytical framework – a Regulatory Diagnostic Toolkit (RDT) – designed to support financial regulators in emerging markets in their efforts to assess, adapt and advance their regulatory regimes for DFS. The RDT’s detailed methodology is built around two key objectives: (i) supporting innovative DFS and (ii) avoiding overregulation.

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1. INTRODUCTION

1.1. Improved financial inclusion through supporting DFS

In recent years, concerted international efforts toward improving financial inclusion have been succeeding - the number of adults in the world without access to financial services has dropped from 2.5 billion in 2011 to 1.7 billion in 2017; ‘69 per cent of adults now have (some form of financial services) account ... (compared to) 62 per cent three years ago’.¹

The significant improvements in financial inclusion of late have been made possible by a combination of the digital transformation in how financial services are delivered and the fact that while many people were unbanked, they did own a mobile phone through which they could access financial services.² These financial services, accessed digitally, are now commonly referred to as Digital Financial Services (DFS).³ DFS are crucial to advancing financial inclusion. For this reason, financial regulators are adopting an advocacy role to mobilise other regulators and government bodies involved in financial inclusion matters to focus on the development of entire DFS ecosystems.⁴ This process is known as ‘digital

¹ Asli Demirgüç-Kunt et al, “The Global Findex Database 2017: Measuring Financial Inclusion and the FinTech Revolution” (Washington, DC: World Bank, 2018), at xi and 4, online: <<https://globalfindex.worldbank.org/>>. See also Izabela Karpowicz, “Financial Inclusion, Growth and Inequality: A Model Application to Colombia” (September 2014) International Monetary Fund Working Paper No WP/14/166; Era Dabla-Norris et al, “Identifying Constraints to Financial Inclusion and Their Impact on GDP and Inequality: A Structural Framework for Policy” (January 2015) International Monetary Fund Working Paper No WP/15/22; Alicia García-Herrero and David Martínez Turégano, “Financial Inclusion, Rather than Size, is the Key to Tackling Income Inequality” (February 2015) BBVA Working Paper No 15/05.

² *Ibid* at 11.

³ DFS refer to all kinds of financial services accessible using digital platforms. These financial services include traditional products such as basic transaction accounts, savings, credit, insurance and investment, and more recent innovative products such as mobile money as well as virtual (including cryptographic) currencies. Digital platforms refer to platforms used to conduct transactions and access financial services. Examples of digital platforms include card payment networks, electronic funds transfer systems, mobile money systems and cryptocurrency platforms. DFS contrast with cash payments or traditional financial services accessed by physical means. DFS providers make use of consumers’ access to telecommunications networks and the internet using devices such as mobile phones, tablets and point-of-sale devices. These providers also rely on agent networks as opposed to bank branch networks.

⁴ DFS ecosystems include financial products delivered via digital channels, and new market participants and infrastructure. It is recognised by standards-setting bodies that the new developments ‘allocate roles and risks ... in different ways as compared with traditional delivery of retail financial services’. See Global Partnership for Financial Inclusion, “Global Standard-Setting Bodies and Financial Inclusion: The Evolving Landscape” White Paper (Washington, DC: CGAP, March 2016) License: Creative Commons Attribution CC BY 3.0, at 9-10.

financial inclusion'.⁵ There is still much to be done to cover those who remain excluded and to ensure existing financial services accounts do not lie dormant.⁶

1.2. Transaction accounts as the key driver of financial inclusion

The Bank for International Settlements (BIS) and World Bank Group consider that an ideal state of financial inclusion would require 'universal access to a wide range of financial services that can be used when and as needed'.⁷ From this perspective, any regulatory initiative that aims to advance financial inclusion should first take into account the objective of promoting universal access to transaction accounts⁸ and focus on addressing difficulties and barriers which may prevent the achievement of that objective.

Payment services are fundamental to such universal access as they not only serve as 'gateways to other financial services'⁹ but also facilitate the efficient provision of those services.¹⁰ Therefore, the existence of 'efficient, accessible and safe retail payment systems and services'¹¹ is considered a precondition for advancing financial inclusion. At a minimum, this means all individuals and businesses 'should be able to have access to and use at least one transaction account operated by a regulated payment service provider to perform most ... of their payment needs, to safely store some value... and serve as a gateway to other financial services'.¹²

Universal access to transaction accounts must be addressed from several angles with the involvement of a range of stakeholders. There are no straightforward solutions. There is no silver bullet. Strong and clear commitment from all public and private stakeholders,

⁵ 'Digital financial inclusion' is defined by the GPFIs Markets and Payment Systems Sub-Group to refer 'broadly to the use of digital financial services to advance financial inclusion'. See World Bank Group's Payment System Development Group, BTCA, and AFI for the G20 GPFIs, "Innovative Digital Payment Mechanisms Supporting Financial Inclusion Stocktaking Report" (2015) 15 ('GPFIs Stocktaking Report'). The GPFIs Stocktaking Report explains: 'Digital financial inclusion involves using digital means to reach financially excluded and underserved populations with a range of formal financial services suited to their needs, delivered responsibly at a cost affordable to the customer and sustainable for the providers.'

⁶ Elisabeth Rhyne and Sonja Kelly, "Is Financial Inclusion Stalling? The 2017 Findex Results Raise Several Red Flags", *Next Billion Blog* (14 June 2018) online: Next Billion Blog <<https://nextbillion.net/is-financial-inclusion-stalling-the-2017-findex-results/>>.

⁷ BIS and World Bank Group, "Payment Aspects of Financial Inclusion" (April 2016), at 4.

⁸ Transaction accounts are defined to include accounts (including e-money and prepaid) held with banks or other authorised and/or regulated payment service providers, which can be used to make and receive payments and to store value. See *Ibid* at 2 and 65.

⁹ *Ibid* at 2.

¹⁰ *Ibid* at 4.

¹¹ *Ibid* at 2.

¹² *Ibid*.

adequate legal and regulatory frameworks, robust information and communications technology (ICT) infrastructure, needs-satisfying transaction account products, readily available access points, greater financial literacy and sustainable volumes of payment streams are all conducive to financial inclusion.¹³

Not all these core elements are within a financial regulator's sphere of influence. The most basic and fundamental infrastructure required for successful and sustained financial inclusion such as electricity, telecommunications networks, roads and public transport are certainly not within the control of financial regulators. This means financial regulators must work to implement their own strategies in parallel with other government agencies responsible for addressing the broader infrastructure issues on which the success of financial inclusion relies.¹⁴ A key contribution which financial regulators can make is to ensure there is an enabling regulatory framework for DFS.

1.3. The challenges of creating an enabling financial regulatory framework for DFS

In emerging markets, where the regulators' roles are already stretched in terms of limited resources and capacity, the regulatory environment is now becoming more challenging and complex as a direct result of advancements in digital technology.

First, there is an expanded range of financial services available to the previously unbanked or underbanked consumers.

Second, new financial service providers have entered the services market and may well require different regulatory treatment than traditional banks or non-bank financial institutions.

Third, increased access to financial services does not always translate into increased *financial usage*, as many transaction accounts remain dormant.

Fourth, regulation needs to strike a careful balance between encouraging digital innovations and addressing underlying risks.

¹³ *Ibid* at 56-61.

¹⁴ Other government agencies include, but are not limited to, Ministry of Finance, telecommunications regulators, agencies in charge of ICT policy, and regulators for nationwide competition and consumer protection matters.

1.4. The need for a comprehensive regulatory diagnostic

The above challenges cannot be adequately addressed without first assessing, in detail, the status and implications of the relevant regulatory system and, second, devising a bespoke regulatory response tailored to the specific circumstances of the jurisdiction in question. This article proposes an integrated solution: an instrument to analyse existing regulatory frameworks, coupled with supporting methodology and step-by-step implementation guidance. Together, these constitute a comprehensive analytical framework – the Regulatory Diagnostic Toolkit (RDT) -- that is the focus of the following sections.

1.5. Structure of this article

The remainder of this article is organised as follows.

- Section 2 outlines the objectives and scope of the RDT;
- Section 3 explains the structure of the RDT;
- Section 4 describes the process of applying the RDT in a country;
- Section 5 illustrates how the RDT was tested in a real-life scenario and provides a list of lessons learned from this process; and
- Section 6 concludes.
- Annex A accompanies Section 3. It details the subject domains listed in Section 3.2 and subsidiary issues within each domain which may be considered in the review of regulatory regimes to identify barriers and gaps preventing the adoption of DFS; and
- Annex B accompanies Section 4 and contains the Checklist for Documents/Information needed prior to commencing the fieldwork phase of the regulatory diagnostic.

2. THE RDT OBJECTIVES AND SCOPE

2.1. The RDT objectives

The objectives of the RDT are based on the need to provide a balanced response to the challenges discussed in Section 1.3 above and can be summarised as follows:

- Reduced barriers to entry for digital financial services;
- A level playing field and flexibility in the market to promote innovation;
- An effective yet proportionate approach to consumer protection;

- Sustained rapid growth and large-scale volumes of operations and underlying transactions;¹⁵ and
- Access to market information for providers while ensuring security and privacy of customer data.¹⁶

The RDT does not presume that regulators in every jurisdiction will want to pursue all of these objectives. On the contrary, it acknowledges that political factors will at times make realisation of some of these objectives impossible or undesirable. Nevertheless, it is important for financial regulators to be confident in the structure of their regulatory regimes and to review and revise these regimes in conjunction with the broader market systems approach.¹⁷ Sound and responsive regulation is fundamental for providing people with the trust and confidence to use formal financial services. Trust and confidence are required to make investors, service providers and consumers genuinely interested in being part of the financial system.

2.2. International guidance to promote financial inclusion

There are numerous forums and tools available to financial regulators to assist with developing and supporting DFS ecosystems. For example, the Alliance for Financial Inclusion provides assistance to countries launching national financial inclusion strategies and the Better Than Cash Alliance (BTCA) undertakes similar work and has, for example, developed general diagnostic tools such as the Ecosystem Diagnostics Toolkit.¹⁸ There is also considerable work being done by international standards-setting bodies (SSBs) to promote the integration of financial inclusion objectives into standards and guidance. This work is

¹⁵ As pointed out by the GPMI Stocktaking Report, it is important to ‘have the capacity to scale up payment innovations and leverage their benefits for larger volumes of payments’ if innovations are to help advance financial inclusion. BIS and World Bank Group, *supra* note 7 at 14.

¹⁶ For instance, Guiding Principle 2 of the BIS report ‘Payment Aspects of Financial Inclusion’ states that ‘[t]he legal and regulatory framework underpins financial inclusion by effectively addressing all relevant risks and by protecting consumers, while at the same time fostering innovation and competition.’ This implies that consumer protection, innovation and competition are all important to the development of retail payment systems. BIS and World Bank Group, *supra* note 7 at 57-58.

¹⁷ Deena Burjorjee and Barbara Scola, “A Market Systems Approach to Financial Inclusion: Guidelines for Funders” (2015) CGAP Report.

¹⁸ See, e.g., the Alliance for Financial Inclusion’s Financial Inclusion Strategy Peer Learning Group, “Financial Inclusion Strategy Peer Learning Group (FISPLG)”, Alliance for Financial Inclusion online: <<http://www.aifi-global.org/about-us/how-we-work/about-working-groups/financial-inclusion-strategy-peer-learning-group-fisplg>>. The Better Than Cash Alliance has a number of toolkits available at: *Toolkits*, Better Than Cash Alliance online: <<https://www.betterthancash.org/tools-research/toolkits>>.

being led by the Global Partnership for Financial Inclusion (GPFI).¹⁹ Most recently the Consultative Group to Assist the Poor (CGAP) released its report providing evidence on “Basic Regulatory Enablers for Digital Financial Services”.²⁰

The RDT should be viewed as a support tool for regulators seeking alignment with international standards, strategies and initiatives while simultaneously responding to the opportunities that DFS present for financial inclusion and economic growth. The RDT, and the method of applying it, have been designed to be consistent with international best practice. To this end, an expected outcome of using the RDT is an improved capacity of financial regulators to develop and promote optimal ‘linkages between financial inclusion, stability, integrity and (consumer) protection’.²¹ The RDT is novel, however, in that it includes both an analytical framework to assist regulators to assess, adapt and revise their regulatory regimes for DFS and step-by-step guidance on how to use the analytical framework. In this manner, the RDT enables regulators to see and navigate within the overall picture. As the RDT makes apparent, a broad range of regulation applies to DFS, and it is a non-trivial task for any regulator to understand what applies to DFS in their jurisdiction, and how it all interrelates.

2.3. Different approaches to DFS regulation

Security and efficiency of the DFS ecosystem are typically two of the principal objectives pursued by regulators.²² The former ensures the market’s trustworthiness and enhances people’s acceptance and uptake of digital financial services provided by nonbanks.²³ The latter is often achieved by reducing barriers to entry for new players.

¹⁹ Global Partnership for Financial Inclusion, “Global Standard-Setting Bodies and Financial Inclusion: The Evolving Landscape” (March 2016) CGAP White Paper online: <http://www.gpfi.org/sites/default/files/documents/GPFI_WhitePaper_Mar2016.pdf>; Global Partnership for Financial Inclusion, “G20 High-level Principles for Digital Financial Inclusion” (2016) White Paper (2016) online: <<https://www.gpfi.org/sites/default/files/G20%20High%20Level%20Principles%20for%20Digital%20Financial%20Inclusion.pdf>>.

²⁰ Stefan Staschen and Patrick Meagher, “Basic Regulatory Enablers for Digital Financial Services” (May 2018) CGAP Focus Note No. 109 online: <<http://www.cgap.org/publications/basic-regulatory-enablers-digital-financial-services>>.

²¹ Stefan Staschen, “Inclusion, Stability, Integrity, and Protection: Observations and Lessons for the I-SIP Methodology from Pakistan” (2014) CGAP Report at 42; “Financial Inclusion and the Linkages to Stability, Integrity and Protection: Insights from the South African Experience” (2012) CGAP Report (these two CGAP documents are referred to together in this toolkit as ‘CGAP I-SIP Methodology’).

²² BIS, “Innovations in Retail Payments” (May 2012) at 37.

²³ *Ibid.*

Regulators in different jurisdictions adopt varying approaches to pursue these two objectives, depending on their underlying philosophy of regulation and the particular local context.

Possible regulatory approaches differ dramatically, each having its pros and cons. The first approach could be described as proactive as it aims to predict future market developments and prescribe corresponding regulations *ex ante*.²⁴ However, such an approach is problematic, as it is likely to subject the market to the risk of innovation-stifling overregulation. The second approach is to ‘wait-and-see’ and ‘let the market grow’. It presumes that regulators only act after specific market developments have emerged.²⁵ The third approach is a structured extension of the second, and involves implementing an interim light-touch regulatory arrangement such as a regulatory sandbox -- a safe space within which innovative providers can grow and develop their products.²⁶

Unlike the pure form of ‘wait-and-see’, a sandbox allows regulators to get involved in the early stages, not by *ex ante* and potentially premature regulation, but by allowing firms to experiment with new products or services in a controlled environment. Application of a regulatory sandbox often involves the granting of industry-wide or entity-specific waivers or the issuance of no-action letters.²⁷ Notwithstanding that the term ‘regulatory sandbox’ became popular relatively recently, similar outcomes have traditionally been engineered through the issuance of no-objection letters or the launch of regulatory pilot programs, on an ad hoc basis, in a number of countries.²⁸

²⁴ *Ibid.* As pointed out by the BIS, one example was the E-Money Directive of 2000 adopted by the EU. ‘In hindsight, however, this measure has turned out to be a barrier to innovation by setting overly strict legislative hurdles.’ That directive was consequently revised in 2009 to allow for less stringent requirements.

²⁵ *Ibid.*

²⁶ The ‘regulatory sandbox’ in the context of financial services regulation was arguably first proposed by the UK’s Financial Conduct Authority in its report entitled ‘Regulatory Sandbox’ published in November 2015. Financial Conduct Authority, “Regulatory Sandbox” (November 2015) online: < <https://www.fca.org.uk/your-fca/documents/regulatory-sandbox> >. This approach is currently tested and practised in a number of markets such as Australia and Singapore. For instance, see ASIC, “Fintech: ASIC's Approach and Regulatory Issues”, paper to the 21st Melbourne Money & Finance Conference (July 18-19, 2016) 10-12 (‘ASIC Fintech Paper’).

²⁷ ASIC Fintech Paper, *Ibid.*

²⁸ The following countries have implemented a regulatory sandbox: Australia, Bahrain, Canada, Hong Kong, Indonesia, Malaysia, Netherlands, Russia, Singapore, Switzerland, Taiwan, Thailand, United Arab Emirates, United Kingdom, United States. The following countries are in early stages of development for the introduction of a regulatory sandbox: Brazil, Brunei, China, India, Japan, Jordan, Kenya, Mauritius, Mexico, Mozambique, Nigeria, Pakistan, Philippines, Republic of Korea, Sierra Leone, Sweden, Turkey. See also Dirk A.Zetzsche et al, “Regulating a Revolution: From Regulatory Sandboxes to Smart Regulation” (2017) 23 *Fordham Journal of Corporate and Financial Law* 31;

Ivo Jenik and Kate Lauer, “Regulatory Sandboxes and Financial Inclusion” (October 2017) Consultative Group to Assist the Poor Working Paper at 11; and

Simone di Castri and Ariadne Plaitakis, “Going beyond regulatory sandboxes to enable FinTech innovation in emerging markets” (January 2018) Bankable Frontier Associates Working Paper.

On balance, the second or the third of these approaches are preferable as the price of overregulation is often very high. The potential drawback of these approaches is that when market developments occur, the regulators might not be able to react sufficiently swiftly.²⁹ Therefore, regular monitoring and routine assessment of the market conditions and regulatory capacity to respond are essential.

3. THE RDT STRUCTURE

3.1 Constituent elements of the RDT

The RDT is a comprehensive analytical framework – it includes an instrument to analyse existing regulator frameworks, coupled with supporting methodology and step-by-step implementation guidance. The RDT comprises several elements:

- Market assessment;
- A document/information checklist;
- A matrix of subject domains and subsidiary issues for consideration;
- Fieldwork and on-site data collection;
- Analysis of collected data; and
- Recommendations to regulators.

Application of the RDT begins with an assessment of the current market situation, where it is headed, and the regulator’s objectives for the market.³⁰ Using this assessment as a guide for expected outcomes, the RDT then provides a framework of analysis for regulators to use to assess their regulatory regimes to identify and/or remove barriers to, and gaps in, the adoption of DFS.³¹

Regulatory barriers and gaps are identified by:

- understanding in detail the policy and regulation development approach of regulators and the importance of local context (discussed further below);

²⁹ BIS, *supra* note 22 at 38.

³⁰ In addition to BTCA’s Ecosystem Diagnostics Toolkit, the GPF I Stocktaking Report on ‘Innovative Digital Payment Mechanisms Supporting Financial Inclusion’ also provides a good conceptual framework that helps regularly assess market developments and new innovations. GPF I Stocktaking Report, *supra* note 7 at 11.

³¹ In this paper, a ‘regulatory regime’ refers to both the tools (legislation/regulations/guidelines) and the use of these tools (oversight/supervision/market-monitoring). See World Bank Group’s Payment System Development Group, BTCA and AFI for the G20 GFPI, *supra* note 5.

- using the RDT to systematically review relevant legislation and regulation pertaining to DFS;
- gathering data and documents which support existing or planned policy;
- interviewing regulators to understand how policies and regulations are developed if there is an absence of data or other evidence; and
- interviewing relevant stakeholders to understand how they are affected by existing and proposed legislation and regulation (or lack thereof).

Barriers can include but are not limited to: prohibitions on new players piloting the provision of DFS without a licence; licensing arrangements for new players which discourage new entrants; or weak or fragile regulatory capacity for the implementation and enforcement of well-intended regulation. Legislation and regulations to be analysed in the RDT include those related to banking and payments, and, more generally, policy, legislation and regulation that directly affect the uptake of DFS, including anti-money laundering (AML), competition, data protection, data privacy and consumer protection laws and regulations.

Ultimately, the RDT seeks to encourage regulators to set and prioritise regulatory objectives in terms of how they want DFS to develop in their country, and then, using the available data, to determine how far the current regulatory regime is away from those objectives. This can also be thought of as a regulator's level of 'regulatory preparedness' for having a framework which is conducive to DFS and improving financial inclusion.

3.2. The matrix of subject domains

The RDT has seven subject domains which encompass the main regulatory issues connected to DFS. For each of these subject domains we outline subsidiary issues for financial regulators to consider when assessing how well their regulatory regime supports the development of the DFS ecosystem. The subject domains and subsidiary issues have been compiled in consultation with the United Nations Capital Development Fund (UNCDF), including Mobile Money for the Poor (MM4P) and the Pacific Financial Inclusion Program (PFIP), as well as the BTCA and the Consultative Group to Assist the Poor (CGAP), and build on earlier versions of regulatory diagnostics.³²

³² See Annex A of this Toolkit on the subsidiary issues. See also digital financial services diagnostics in West Africa: Tenzin Keyzom Ngodup, "Digital Financial Services Diagnostics in West African Fragile States Guinea, Liberia and Sierra Leone" (1 April 2016) UNCDF online: <<http://www.uncdf.org/en/digital-financial-services-diagnostics-west-african-fragile-states-guinea-liberia-and-sierra-leone>>.

Financial regulators are not expected to address each subject domain comprehensively in their regulatory regime. Rather, the subject domains provide a structured approach to assessing a regulatory regime so that the main regulatory issues connected with DFS are considered and not inadvertently overlooked. Each country will have its own local context which influences both ideas about how the DFS ecosystem should be developed and how regulatory regimes should address the various risks associated with DFS. This local context (e.g. regulation and market structure) is important to maintain relevance for the country in which the RDT is being applied. In other words, assessments using the RDT must align with local definitions of success and the regulators' visions and objectives. The RDT does not seek to produce a generic approach to the regulation of DFS throughout the world. Regulations work best when they are specific to the needs and realities of a country. The data/evidence gathering exercise assists regulators to decide which of the seven domains they might best address first. The diagnostic exercise will also assist development partners such as multilateral development banks and other development agencies to have perspective and reach consensus on prioritising different regulatory issues facing a country which is wanting to focus on regulatory issues associated with DFS.

The seven subject domains are:

1. Overall Regulatory Architecture

This domain aims to depict an overview of the country's DFS regulatory regime and helps identify and assess factors that give rise to barriers/gaps preventing the adoption of DFS in relation to dimensions of regulatory mandate, capacity and coordination.

2. Building the Ecosystem

This domain examines dimensions that concern the regulators' intention and capacity to implement enabling regulation so as to build a sustainable DFS ecosystem. These dimensions include competition, innovation, consumer demand,³³ financial literacy, interoperability, partnerships, and public access to market data.

³³ Ross P. Buckley and Louise Malady, "Building Consumer Demand for Digital Financial Services – The New Regulatory Frontier – Part I" (2014) 131:10 *Banking Law Journal* 834; Ross P. Buckley and Louise Malady, "Building Consumer Demand for Digital Financial Services – The New Regulatory Frontier – Part II" (2015) 132:1 *Banking Law Journal* 35; and RP Buckley and S Webster, "FinTech in Developing Countries: Charting New Customer Journeys" (2016) 44 *Journal of Financial Transformation*, 151.

3. Protection of Funds

This domain assesses the country's regulatory regime for protecting the e-money funds and evaluates whether these regimes effectively protect customers' funds from insolvency, liquidity and operational risks.³⁴

4. The Use of Agents

This domain examines the existing regulatory and contractual arrangements with regard to the use of agents, the allocation of liability, and the management of credit, liquidity and consumer risk that may arise among the provider, agent and customer.³⁵

5. Consumer Protection

This domain assesses the effectiveness of the country's financial consumer protection framework in the following dimensions: regulatory mandate, industry codes, product disclosure, recourse mechanisms, use of agents and digital delivery of financial services. It is expected that in emerging markets a proportionate approach is taken, which means one that takes into consideration local context and where the costs of the framework for regulators, providers and consumers are proportionate to the risks.³⁶

6. AML/CFT

This domain evaluates how well the country is doing in terms of balancing the implementation of proportionate anti-money laundering/countering the financing of terrorism (AML/CFT) measures and the promotion of financial inclusion. Dimensions assessed include the use of a risk-based approach, the adoption of simplified consumer due diligence (CDD), transaction monitoring and reporting and new approaches to AML/CFT.³⁷

7. Data Privacy

³⁴ Jonathan Greenacre and Ross P Buckley, "Using Trusts to Protect Mobile Money Customers" (2014) *Singapore Journal of Legal Studies* 59; and David Ramos et al, "Protecting Mobile Money Customer Funds in Civil Law Jurisdictions" (2016) 65:3 *International & Comparative Law Quarterly* 705.

³⁵ Evan Gibson, Federico Lupo Pasini and Ross P Buckley, "Regulating Digital Financial Services Agents in Developing Countries to Promote Financial Inclusion" (2015) *Singapore Journal of Legal Studies* 26.

³⁶ Louise Malady, "Consumer Protection Issues for Digital Financial Services in Emerging Markets" (2016) 31:2 *Banking and Finance Law Review* 389.

³⁷ Louise Malady, Ross Buckley and Douglas Arner, "Developing and Implementing AML/CFT Measures using a Risk-Based Approach for New Payments Products and Services" (June 2014) University of Hong Kong Faculty of Law Research Paper No 28, online: <<https://clmr.unsw.edu.au/resource/digital-financial-services/developing-and-implementing-aml/cft-measures-using-a-risk-based-approach-for-new-payments-products-and-services>>.

This final domain reviews the country's regulatory and contractual mechanisms concerning the protection of customers' data and privacy. Four dimensions are considered: the rights of individuals to privacy and data protection; the sharing of customers' financial information among financial services providers; the use of customers' credit information; and dispute resolution and recourse mechanisms for consumers to redress misuse of data and infringement of privacy.³⁸

Annex A lists the subsidiary issues within each subject domain.

4. PROCESS FOR APPLYING THE RDT

A team of experts (Diagnostic Team) is responsible for applying the RDT in any one country (Target Country). During the pilot of the RDT in 2016, the functions of the Diagnostic Team were carried out by the UNSW DFS Research Team in coordination and consultation with UNCDF represented by MM4P and PFIP. In addition to being used to carry out regulatory diagnostics by the Diagnostic Team, it is also expected that the RDT may be used by financial regulators to initiate and undertake their own assessment, with some support, as necessary, from outside consultants or local specialists of international development organisations. In these instances, the regulator would provide most members of the Diagnostic Team, with possible assistance from said outside consultants or local specialists. Self-diagnosis in developing countries may well be difficult, as the regulators who carry out the diagnostic may be constrained in terms of capacity and resources. The challenges in coordinating matters outside of a financial regulator's direct control must also be taken into consideration when considering implementation of the recommendations arising from the diagnostic.

RDT application has four phases: (i) Desk-Based Research – Pre-Fieldwork; (ii) Fieldwork; (iii) Post-Fieldwork and Assessment; (iv) and Post-Assessment. These phases are outlined below.

Phase 1 - Desk-Based Research and Pre-Fieldwork

During Phase 1 the Diagnostic Team should:

- 1.1. produce a background context paper;

³⁸ Katharine Kemp and Ross P Buckley, "Protecting Financial Consumer Data in Developing Countries: An Alternative to the Flawed Consent Model" (2017) 18:3 *Georgetown Journal of International Affairs* 35.

- 1.2. conduct preliminary briefings with the lead regulator(s) and development partners;
- 1.3. complete a checklist of required background information and documents; and
- 1.4. prepare for the interviews in Phase 2.

The Diagnostic Team undertakes research on the Target Country context. The objective of this phase is to work with regulators to ensure a clear understanding of the current state of the market and the legal and regulatory landscape. The desk-based research will seek to clarify the specific policy and regulatory objectives for DFS (for example, those stated in the national strategy, if available) and the lead regulator's vision for the DFS ecosystem.

- 1.1. A context paper prepared by the Diagnostic Team should address: an overview of the financial sector, the Target Country's financial inclusion policies, the existing legal and regulatory frameworks, the telecommunications infrastructure and mobile phone penetration, the general access to finance in the Target Country, the state of play of DFS, challenges to DFS growth and initiatives to promote DFS. The context paper will provide the background for the Diagnostic Team to have informed discussions during fieldwork (Phase 2). After extensive revision to reflect all that has been learned from the in-country fieldwork, the context paper will be incorporated into the final Target Country diagnostic report.
- 1.2. A preliminary briefing will be scheduled with the lead financial regulator(s) regarding the scope and purpose of the research. In most countries, the lead financial regulator will be the central bank (referred to in this article as the 'lead regulator'). Preliminary contact with development partners will also be sought at this stage to ascertain previous, current and planned development assistance pertaining to DFS. These briefings may be done either in person or by email exchange or phone conference. One objective of the preliminary briefing with the lead regulator will be to start discussions on the regulatory objectives to later appropriately gauge the level of 'regulatory preparedness' (see discussion above in Section 3.1 on 'regulatory preparedness').
- 1.3. A checklist of required background information and documents should be completed by the Diagnostic Team. Local facilitators (such as, in our case, UNCDF (MM4P and PFIP)) ought to play a critical role by assisting with this task. The checklist is

forwarded to the relevant regulators so they may assist in its completion with the objective of developing a thorough understanding of the Target Country context (an example of this checklist is attached in Annex B).

- 1.4. Interviewees for fieldwork are best determined in this phase. Interviewees are best chosen in consultation with the lead regulator and are drawn from both government and private sectors. Private sector interviews should be sought with mobile network operators (MNOs), banks, medium sized service providers, payment aggregators, agent network managers, e-money institutions, microfinance institutions (MFIs), etc and consultation undertaken with local facilitators (such as UNCDF and PFIP). The schedule of interviews ought to be set prior to the commencement of fieldwork. Additional time should be allocated (i) to facilitate follow-up on various issues with key stakeholders, as they arise, and (ii) to interview additional relevant parties identified in the course of the fieldwork.

Interview questions should be based on the desk research undertaken and structured using the seven subject domains (see Section 3.2 above). Interview questions should also be aimed at helping the Diagnostic Team understand the regulatory rule- and decision-making process and evidence base behind intended regulatory initiatives. The subject domains and subsidiary list of issues are *not* expected to be completely, or exhaustively, addressed at this stage. These domains and subsidiary issues serve to focus research in a structured and comprehensive manner: during Phase 2 the interviewers should refer to these issues to guide their questions, and the issues may be highlighted throughout the course of the interviews if relevant to the local context. This is important because it is not expected that a regulator should address every subsidiary issue in each domain, nor should interviewees be given the impression that the lead regulator will be moving to a regulatory regime that looks to address every issue noted in the RDT.

Phase 2 - Fieldwork

During Phase 2 the Diagnostic Team should:

- 2.1. organise an opening meeting with the lead regulator;
- 2.2. conduct interviews with entities identified in Phase 1;
- 2.3. have discussions with the lead regulator's legal counsel; and

2.4. organise the second meeting with the lead regulator and development partners.
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2.1. The Diagnostic Team should commence the fieldwork with an opening meeting with the lead regulator. The scope and purpose of the research can be explained again and clarification is best again sought on the lead regulator's view of the current state of the market and the specific policy and regulatory objectives for DFS (i.e. those stated in any national strategy (if available), including the data and documentary evidence underpinning the policies) and the regulator's vision for the DFS ecosystem. It is important to cover this ground again at the beginning of fieldwork and in a face-to-face meeting because this contributes towards ensuring the Diagnostic Team truly understands factors which will influence further RDT work. These factors include: how current policy making processes work, the data and documentation to support policy and regulatory decisions, how the lead regulator perceives the current state of the market position and how they want DFS to develop in their country.

2.2. The Diagnostic Team can then proceed to conduct interviews with the entities identified in Phase 1. The interviews should aim to provide the Diagnostic Team with a deeper and more comprehensive understanding of existing regulatory approaches with respect to DFS and to identify regulatory barriers to further adoption of DFS and any gaps in current DFS regulation. Interviews with government bodies can focus on understanding their respective roles in relation to the provision of DFS. Private sector interviews should focus on understanding local issues, interviewees' business plans and any regulatory challenges (perceived and actual) that may need to be addressed from an industry perspective to support market development. Interviews with local representatives of development partners can also be sought for an update on development assistance related to DFS.

Questions are asked and information is gathered throughout the interviews using the seven subject domains. As noted above (see Phase 1), the subject domains and subsidiary list of issues serve to focus discussions in a structured and comprehensive manner; they are not a fixed set of questions and they do not all need to be answered. Only questions and issues relevant to the local context need to be raised.

This stage involves discussions with a large number of interviewees. The interviews aim to provide a nuanced picture of the Target Country's local context so as to deepen

the Diagnostic Team's understanding of existing regulations and how these regulations are being implemented from the perspective of both the regulator and the regulated. It is critical that the application of the RDT allows for robust consultation with industry stakeholders.

- 2.3. It is important to engage with the legal counsel of the lead regulator early in the fieldwork. The legal counsel is crucial in providing an applied understanding of the relevant laws and regulations and up-to-date information and guidance on how to interpret the laws and regulations and how they are being applied in practice.
- 2.4. Prior to the completion of fieldwork, time should be allocated to meet the local development partners and the lead regulator once more. The purpose of the second meeting with the development partners is to report and reflect on what has been learned from fieldwork interviews. The purpose of the second meeting with the lead regulator is to discuss general matters of interest raised during the interviews and to confirm the regulator's view on how they want DFS to develop in the Target Country, and how they plan to coordinate with other regulators and government bodies to move in that direction, given what has been learned from the interviews. It is likely that during the course of interviews, the interviewers will have gained a deeper understanding of the local context. The interviewers should be in a better position to understand gaps in data-driven evidence and reasons for the barriers and gaps in the existing regime. This deeper level of understanding should result in better discussions with local development partners and regulators, to assist the lead regulator in identifying what needs to be done to achieve their desired position in respect of DFS.

Phase 3 - Post-Fieldwork and Assessment

During Phase 3 the Diagnostic Team should:

- 3.1. assess the information gathered;
- 3.2. present its findings to the Target Regulators and other stakeholders; and
- 3.3. prepare a preliminary report.

- 3.1. The Diagnostic Team assesses the information gathered against the understanding of the regulator's goals in relation to DFS. Time can be allocated for requesting extra information identified as necessary or clarifying issues raised in the interviews.

- 3.2. Observations and findings should be presented to the lead regulator and other key stakeholders with the focus on addressing barriers or gaps preventing the regulatory regime from supporting the realisation of the vision of the regulator. Gaps in data-driven evidence can be communicated to the lead regulator for their further assessment and investigation. It may be that a discrete project will be necessary, or another development partner or source of expertise brought into the process, to address these evidential gaps. The lead regulator may be asked to consider the actions they want to pursue and the means to be used to achieve their objectives.
- 3.3. A preliminary report should be prepared detailing the research findings and proposing the next steps for the lead regulator. This report should be submitted to the lead regulator for comment. This phase entails close collaboration between the regulator and the Diagnostic Team so as to ensure a clear understanding of the recommendations and the feedback from the regulator.

Phase 4 - Post-Assessment

This phase involves the preparation of a final report by the Diagnostic Team in consultation with the lead regulator. Ideally the final report is then presented for industry consultation and plans for implementation of the recommendations are formulated.

5. TESTING THE RDT: LESSONS FROM THE SOLOMON ISLANDS

The RDT was piloted ‘in-country’ in 2016 in the Solomon Islands. As a result of applying the RDT, the central bank was provided with a detailed benchmark report delivering recommendations against which to assess their approaches to designing oversight and regulatory frameworks for DFS, with the goal of facilitating a more consistent and level playing field for institutions operating in the Solomon Islands and, by doing so, encouraging further innovations in DFS technologies for the unbanked.

The RDT was refined and adjusted as a result of the pilot and these learnings are now reflected in this article. The main lessons learned from the pilot suggest that early and extensive collaboration among domestic regulators, consultants and local champions from international donor agencies promotes the diagnostic process itself. Collaboration underpins the process of domestic regulators understanding and engaging in the RDT process and the recommendations that emerge from it.

6. CONCLUSION

The RDT has been designed for financial regulators to use as an objective means of assessing, reviewing and refining regulatory frameworks that support DFS. It is a tool to enhance and support regulatory capacity. The application of the RDT supports a data-driven evidence-based approach to financial regulatory policy development. Accordingly, an expected outcome of using the RDT is an improved policy development process due to the identification of critical data gaps prior to the formalisation and endorsement of policy reforms.

The RDT provides an analytical framework which supports a wholistic approach to reviewing and revising regulatory regimes for DFS and, to this extent, it is a unique tool for regulators. Through the experience of its application, it was refined and developed. This process of application also highlighted the integral importance of collaboration and cooperation between stakeholders associated with policy reform and development work. It is expected that the RDT will continue to be refined over time so that it continues to meet the purpose of assisting regulators to support sustainable DFS ecosystems.

7. Annex A: Subject Domains and Subsidiary Issues

The subject domains and subsidiary issues provide a structure framework for conducting the diagnostic work of identifying barriers and gaps in a regulatory regime which may prevent the adoption of DFS. While the subject domains and subsidiary issues are detailed and comprehensive, there is no compulsion when doing the diagnostic work to follow a set-order, nor to consider all domains or all subsidiary issues within a domain. The focus chosen must be relevant to the local context.

1. Overall Regulatory Architecture

Dimensions	Issues for Consideration
Responsibilities of Regulators	<ol style="list-style-type: none"> 1. How does the law prescribe the lead regulator for DFS? 2. How are the responsibilities and objectives of each regulator defined in the law? 3. What efforts are made to ensure market participants understand the responsibilities of the regulators for DFS? 4. Does the relevant regulatory framework accommodate DFS and financial inclusion generally?
Regulatory Mandate	<ol style="list-style-type: none"> 1. How are non-financial firms that wish to provide DFS treated? Do they need to be registered or licensed, or to establish a separate legal entity to seek registration or a licence to operate?³⁹ 2. What powers are given to regulators to review the activities of DFS providers (and their affiliated companies) to determine the risks such activities may pose to the safety and soundness of the supervised institution and the wider financial system?⁴⁰ 3. Which aspects of DFS lie outside the competencies of regulators and can only be addressed in a statute?
Regulatory Capacity	<ol style="list-style-type: none"> 1. What resources and training in relation to DFS are provided to frontline supervisors? 2. Are supervisors responsible for overseeing multiple types of institutions? For example, is oversight and supervision activity-focused or provider/technology-neutral? 3. What is done with the reports/data received from regulated institutions? <ol style="list-style-type: none"> a) How is the information collated by the regulator (e.g. manually or automatically uploaded into databases)? b) How is the information analysed? c) How do supervisors follow-up on issues identified from information reported?

³⁹ Basel Committee on Banking Supervision, “Guidance of the Application of the Core Principles for Effective Banking Supervision to the Regulation and Supervision of Institutions Relevant to Financial Inclusion” (December 2015) Bank for International Settlements Consultative Document at 15..

⁴⁰ *Ibid* at 15–17.

Regulatory Coordination	<ol style="list-style-type: none"> 1. What are the arrangements in place to ensure cooperation and collaboration among domestic and foreign authorities responsible for the regulation and supervision of DFS?⁴¹ 2. What are the processes for cooperation and coordination between the payment system overseer and other regulatory authorities such as the prudential regulator, market conduct regulator, competition authority, financial consumer protection authority and the finance ministry?⁴² 3. What is the consultation process among the relevant authorities for the drafting of regulations and guidelines for institutions supervised by more than one authority?⁴³
Payments Oversight versus Prudential Supervision	<ol style="list-style-type: none"> 1. What is the role of payment system overseer with respect to the provision of DFS? 2. What laws govern the payment system and payment service providers (i.e. definition, registration and licensing requirements, and eligibility to be a payment service provider)? 3. Does payment legislation/regulation define retail payments to include e-money and agent networks? 4. What are the arrangements for coordination between prudential supervisors and payments overseers?

2. Building the Ecosystem

Dimensions	Issues for Consideration
Regulatory Intention	<ol style="list-style-type: none"> 1. What is the involvement of regulators in supporting the ecosystem for DFS? 2. What is the national strategy to coordinate financial inclusion efforts? 3. What regulatory actions have been taken to promote agent networks?
Competition	<ol style="list-style-type: none"> 1. How is competition promoted? Are anti-competitive practices prohibited? Are there specific rules (e.g. statutes) on the matter?⁴⁴ 2. How does the law ensure that the incumbents do not create undue barriers to entry and that entrants can have equal access to information and infrastructure needed to provide DFS?⁴⁵ 3. Are there rules which prohibit rivals from colluding with each other with the purpose or effect of hindering the competitive process? 4. Does the law define the role and power of financial, telecommunications and competition regulators in protecting and promoting competition in the DFS sector?⁴⁶ 5. How is the issue of regulatory arbitrage between regulated and non-regulated providers of DFS being addressed?
Innovation	<ol style="list-style-type: none"> 1. Are the regulators structured such that their approach is flexible and they can promote or support innovation in DFS? <i>Supplemental questions:</i> <ul style="list-style-type: none"> • Does there exist a unit within the financial regulators that serves as their central point of contact on DFS promotion or innovation more generally, providing a channel of communication so industry can seek guidance from the regulator prior to product development and launch? • Are there mechanisms which allow institutions to test new products and services on a small scale prior to licensing being required? • Is there a focus on streamlining the licensing procedures for providers of DFS?⁴⁷

⁴¹ *Ibid* at 6–7.

⁴² *Ibid* at 7.

⁴³ *Ibid* at 7 and 35.

⁴⁴ CGAP, “Branchless Banking Diagnostic Template” (February 2010) 21 online: <

<https://www.cgap.org/sites/default/files/CGAP-Branchless-Banking-Diagnostic-Template-Feb-2010.pdf>>.

⁴⁵ *Ibid* at 22.

⁴⁶ *Ibid*.

⁴⁷ Office of the Comptroller of the Currency, “Supporting Responsible Innovation in the Federal Banking System: An OCC Perspective” (March 2016) at 5-6.

	<ol style="list-style-type: none"> 2. What steps have been taken to ensure the regulators foster an internal culture supportive of innovation in DFS?⁴⁸ <i>Supplemental questions:</i> <ul style="list-style-type: none"> • Do the regulators have a sufficient level of background knowledge, adequate staffing of subject domain experts (or fiscal resources to hire these experts to do the evaluation for them)? • Is there sufficient continuing education/training to help equip regulators with the expertise needed?
Consumer Demand	<ol style="list-style-type: none"> 1. Is there, or might there be, any dialogue between the regulators and Treasury to encourage the use of digital financial systems for G2P payments given that G2P payments are a particularly effective means of introducing consumers to DFS? 2. What research or surveys have been undertaken by the regulators to enhance their understanding of customer/end-user demand and perceptions of DFS? 3. Is there data available to facilitate an understanding of the evolution of DFS among regulated and non-regulated providers?
Financial Literacy	<ol style="list-style-type: none"> 1. Do regulators see a need to support financial literacy programs to drive regular use of DFS products? 2. Are regulators actively involved in financial literacy programs? 3. What mechanisms exist to improve financial literacy on issues of DFS? 4. Do the regulators encourage providers to incorporate financial literacy training in product launches?
Interoperability	<ol style="list-style-type: none"> 1. How do the regulators view their role in facilitating interoperability among DFS providers? 2. Are there regulator-driven industry discussions or arrangements in place for exploring interoperable and interconnected systems (i.e. interoperability of platforms and interoperability of agents)?
Partnerships	<ol style="list-style-type: none"> 1. What methods do the regulators use to assess partnerships between banks and non-banks in providing and delivering DFS? 2. How do the regulators expect regulated entities to manage collaboration risk arising from partnerships?
Access to Market Data	<ol style="list-style-type: none"> 1. Which institution collects data relating to financial inclusion?⁴⁹ Is the current data collection framework supported by adequate resources?⁵⁰ 2. Does the current data collection framework on financial inclusion separately identify financial services delivered via digital means? If yes, what types of data have been collected and from what sources? 3. Do regulators use the data collected to measure the success of the strategies to support DFS and financial inclusion? 4. Does the current data collection framework cover non-bank financial service providers such as post offices, microfinance institutions, savings groups or telecommunications companies? If yes, what types of data have been collected and from which sources?⁵¹ 5. Does the current data collection framework face any challenges? These may include the cost of demand-side surveys, or insufficient integration of data collection process with national statistical frameworks.⁵² 6. Is there a need for the regulators to share data with other government bodies and supervisory authorities?⁵³ If yes, is the data currently being shared and through what arrangements? 7. Do regulators disclose or publish the data they have collected? If yes, how often and through what medium and format? 8. Might there be excessive requirements for provision of data? Have DFS providers been overwhelmed with data requests? Have the purposes of data provision requirements (such as risk analysis or industry evolution) been established?

⁴⁸ *Ibid* 6-7.

⁴⁹ Irving Fisher Committee on Central Bank Statistics, “Measures of Financial Inclusion – A Central Bank Perspective” (2016) Bank for International Settlements Report at 33..

⁵⁰ *Ibid*.

⁵¹ *Ibid* at 36.

⁵² *Ibid* at 33.

⁵³ *Ibid* at 39.

3. Protection of Funds

Dimensions	Issues for Consideration
Deposits	<ol style="list-style-type: none"> 1. Does the law clearly define the scope of deposits and what types of entities may engage in deposit taking? 2. If there is a deposit insurance scheme in place, what is its scope? And, specifically, does it cover customers' e-money funds? 3. Are there different levels of licensing, registration and supervision based on different risk levels as a result of the nature of the deposit-taking entity, account balance limits or channels through which deposits are taken?
E-Money	<ol style="list-style-type: none"> 1. Does the law clearly define e-money and what types of entities may engage in e-money issuance? 2. Is there a regulatory regime in place for non-banks to issue e-money? 3. Are there legal or regulatory arrangements in place to safeguard customers' funds from insolvency, liquidity and operational risk of the e-money issuer? Has there been consideration of adopting approaches other than relying on trust arrangements to protect funds such as the EU approach – choosing either to ensure funds are not commingled or funds are covered by an insurance policy?⁵⁴ 4. What is the regulators' view on how the interest accrued on the e-money float should be used?

⁵⁴ For example, Article 10 (1) of the Revised Directive on Payment Services (PSD2) provides that ‘The Member States or competent authorities shall require a payment institution which provides payment services as referred to in points (1) to (6) of Annex I to safeguard all funds which have been received from the payment service users or through another payment service provider for the execution of payment transactions, in either of the following ways: (a) **funds shall not be commingled at any time with the funds of any natural or legal person other than payment service users on whose behalf the funds are held** and, where they are still held by the payment institution and not yet delivered to the payee or transferred to another payment service provider by the end of the business day following the day when the funds have been received, **they shall be deposited in a separate account in a credit institution or invested in secure, liquid low-risk assets as defined by the competent authorities** of the home Member State; and they shall be insulated in accordance with national law in the interest of the payment service users against the claims of other creditors of the payment institution, in particular in the event of insolvency; (b) **funds shall be covered by an insurance policy or some other comparable guarantee from an insurance company or a credit institution**, which does not belong to the same group as the payment institution itself, for an amount equivalent to that which would have been segregated in the absence of the insurance policy or other comparable guarantee, payable in the event that the payment institution is unable to meet its financial obligations.’ Full text of the PSD2 available at: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32015L2366>.

4. Regulating the Use of Agents

Dimensions	Issues for Consideration
Use of agents	<ol style="list-style-type: none"> 1. Do retail payment regulations allow banks and payment service providers to provide payment services through agent networks? 2. Are regulatory obligations with respect to the use of agents placed on the principal rather than the agent itself? 3. Do regulators concern themselves with what type of entities may be agents? 4. Does a notification regime exist for the use of agents, in contrast to a registration or licensing regime? 5. Does the law allow for agent sharing between different DFS providers? 6. Do the regulators oversee the business of agents and have inspection powers? 7. Do the regulators receive reports on agent activity? What is the frequency of such reporting?
Agent services	<ol style="list-style-type: none"> 1. Does the law require principals to be responsible for the actions of their agents in relation to DFS? 2. How do the regulators satisfy themselves that credit or liquidity risk which may arise between the provider, agent and customer is adequately managed?
Agent compensation	<ol style="list-style-type: none"> 1. Is there any legal or contractual arrangement in place to ensure that agents are not able to add additional fees and charges to customers' transactions?
Consumer Protection	<ol style="list-style-type: none"> 1. Are agents provided with training in relation to any consumer protection and disclosure requirements which apply to their principal – be it either a bank or non-bank? Are they required to explain the mechanisms for redress? 2. Do agents play a role in enhancing consumers' financial literacy for DFS?

5. Consumer Protection

Dimensions	Issues for Consideration
Mandate	<ol style="list-style-type: none"> 1. Does the responsibility for consumer protection rest with one regulator? 2. If there are different regulators in charge of consumer protection matters, how do they coordinate enforcement mechanisms and the creation of a level playing field? 3. Do the regulators tasked with consumer protection have a clear consumer protection supervisory mandate for each type of DFS provider? 4. Do the regulators tasked with consumer protection have powers to carry out enforcement actions? 5. How do the regulators tasked with consumer protection undertake market monitoring, off-site supervision, and on-site supervision?
Industry Codes	<ol style="list-style-type: none"> 1. How do the regulators make use of existing industry codes? For example, the regulators may ask regulated entities which codes they have signed up to and to demonstrate how they are complying with those codes.⁵⁵
Disclosure	<ol style="list-style-type: none"> 1. Is clear product disclosure assessed by the regulators? 2. Do regulators seek to ensure that product disclosure makes it clear who consumers approach for recourse?

⁵⁵ Codes include the SMART campaign Client Protection Principles and GSMA 's Code of Conduct for Mobile Money Providers.

Recourse	<ol style="list-style-type: none"> 1. Are DFS providers required to have a dedicated internal complaints handling department and to publish contact details and procedures for complaints handling? 2. Are DFS providers required to record complaints received from consumers and their outcomes? If yes, are DFS providers required to report these details to the regulators? 3. Is there an ombudsman, or a similarly independent body, with whom consumers can lodge complaints? 4. Are procedures for recourse clear, easy to understand, available and affordable? 5. Are recourse mechanisms regularly tested or used?
Agents	<ol style="list-style-type: none"> 1. How do consumer protection arrangements apply to agents?
Digital Delivery	<ol style="list-style-type: none"> 1. How do consumer protection requirements extend to digital methods of delivering financial services? 2. Do existing supervisory arrangements include reviewing business continuity plans to minimise disruptions due to technology and infrastructure problems?

6. AML/CFT

Dimensions	Issues for Consideration
Risk-Based Approach	<ol style="list-style-type: none"> 1. How does the law provide for the use of a risk-based approach to implementing AML/CFT measures? 2. How do the regulators identify and assess the ML/TF risks posed by DFS?
Remote Account Opening permitted	<ol style="list-style-type: none"> 1. Does the law allow agents to open accounts for customers prior to providers' verifying identification documents?
Simplified versus Enhanced CDD	<ol style="list-style-type: none"> 1. Does the law permit the use of simplified consumer due diligence (CDD) where risks are lower? If yes, then: <ol style="list-style-type: none"> a. are identification, verification and monitoring less intensive and less formal under simplified CDD? b. are clear procedures in place for institutions to decide when simplified CDD can be used? 2. Is flexible or tiered KYC allowed? 3. How are AML/CFT rules enforced through agents?
Transaction monitoring and reporting	<ol style="list-style-type: none"> 1. How do the regulators review providers' procedures for transaction monitoring, record keeping and reporting of suspicious transactions? 2. Is a systematic approach used for investigating information from suspicious transaction reports?
New approaches to AML/CFT	<ol style="list-style-type: none"> 1. What plans, if any, are in place with respect to using new technologies/approaches such as biometric identification to improve identification of ML/TF?

7. Data Privacy / Protection

Dimensions	Issues for Consideration
Individual's Rights	<ol style="list-style-type: none"> 1. Does the law respect and protect the rights of individuals to privacy and data protection?⁵⁶ 2. Does the law require consumer authorisation or consent for the collection, sharing and use of personal information by financial services providers and other non-bank DFS providers?⁵⁷ 3. How does the law provide for individuals to be sufficiently informed about the processing and use of their personal data and about their corresponding rights?⁵⁸ 4. What mechanisms does the law provide for an individual to object to the processing and use of information concerning him or her? If yes, is the right to object restricted in any way (e.g. when an objection can be made only when based on certain grounds permitted by the law)?⁵⁹ 5. How do regulators make customers aware of the issues regarding data privacy in the context of DFS?
Information Sharing	<ol style="list-style-type: none"> 1. How does the law govern the use, storage and sharing of customers' financial information by banks, nonbanks, such as mobile network providers, or other types of non-financial institutions?⁶⁰ 2. How does the law govern information sharing among banks and nonbanks?⁶¹
Credit Information	<ol style="list-style-type: none"> 1. Is there a credit bureau to collect customer information and provide consumer credit information?⁶² 2. Does the law allow the collection of both positive and negative customer credit information and address the use of credit information by credit bureaus?⁶³ 3. Does the law govern who can have access to credit bureaus' databases and on what terms?⁶⁴
Dispute Resolution and Recourse	<ol style="list-style-type: none"> 1. Does the law require DFS providers to retain records of all services and transactions undertaken for a certain period of time?⁶⁵ If yes, how is such period defined? 2. How does the law require DFS providers to implement appropriate measures to protect personal data against accidental or intentional destruction, alteration, unauthorised disclosure, and all other illegitimate forms of processing?⁶⁶ 3. Are dispute resolution and recourse mechanisms in place for consumers to redress misuse of personal data and infringement of personal privacy? How do these mechanisms operate?⁶⁷

⁵⁶ European Data Protection Supervisor, "Guidelines on Data Protection in EU Financial Services Regulation" (November 2014) at 6-9 online: < https://edps.europa.eu/sites/edp/files/publication/14-11-25_financial_guidelines_en.pdf>.

⁵⁷ *Ibid* at 13-15.

⁵⁸ *Ibid* at 18-19.

⁵⁹ *Ibid* at 20.

⁶⁰ CGAP, *supra* note 44 at 26.

⁶¹ *Ibid* at 25.

⁶² *Ibid* at 26-27.

⁶³ *Ibid*.

⁶⁴ *Ibid*.

⁶⁵ European Data Protection Supervisor, *supra* note 56 at 15.

⁶⁶ *Ibid* at 21.

⁶⁷ *Ibid* at 22.

8. Annex B: Documentation Checklist for Fieldwork

This annex includes the checklist is to be completed prior to fieldwork.

Instructions for completing the checklist:

- The checklist should be completed first by the Diagnostic Team and then by the lead regulator for DFS.
- Initial responses to this checklist should be completed, where possible, with information obtained from the Diagnostic Team’s desk-based research and other sources such as local facilitators, FinScope, the World Development Index, the World Bank’s Global Financial Inclusion (Global Findex) database, etc.
- Where responses require the attachment of additional information, this should be itemised using annex numbers or hyperlinks if available online.
- The lead regulator should coordinate with the relevant stakeholders to verify the initial responses completed by the Diagnostic Team and complete any remaining items in this checklist.

The completed checklist should be forwarded to the Diagnostic Team

Documents and Information Required

A table is to be prepared with a response recorded for each of the following documents or pieces of information required, along with any supporting notes or a hyperlink to the source.

Documents	Information Required
Legal Documents (for each law and regulation - include details on both those currently in force as well as upcoming or proposed changes)	1. Laws and regulations (i.e. pertaining to Digital Financial Services (DFS), such as regulations that govern e-money, mobile banking or digital payment services).
	2. Laws and regulations that govern consumer protection.
	3. Laws and regulations that govern AML/CFT.
	4. Laws and regulations that govern data privacy of customers in banking or finance.
	5. Laws and regulations that govern deposit taking activities
Key Organisations	6. Names and contact details of key regulatory staff for: - banking;

and Contact Details	<ul style="list-style-type: none"> - non-bank financial institutions; - payments systems and payments service providers; - mobile network operators; - telecommunications; - market conduct / consumer protection; and - Regulator(s) for competition. <p>7. Names and products of the main DFS providers in the country, along with contact details of the DFS provider staff who oversee the compliance, technical and marketing aspects for products and services.</p> <p>8. Names of industry organisations – both government and non-government – with activities relating to DFS, along with contact details of key staff in these organisations.</p> <p>9. Names of development partners involved in activities which may affect DFS, along with contact details of key staff in these organisations.</p> <p>10. Names of institutions (such as the postal service) permitted to provide money transfer services, if any, along with contact details of those in charge of compliance, technical and marketing aspects for these services.</p>
Strategic Planning related to DFS	<p>11. Financial inclusion strategies or DFS strategies which have been undertaken in recent years. Identify and provide an overview of any upcoming or proposed changes/revisions and superseding strategies.</p> <p>12. Customer/end-user demand surveys which have been carried out on DFS.</p> <p>13. Retail payment systems and channels (e.g., agent network, e-wallets, and cards at POS) which are interoperable or are to be made interoperable.</p> <p>Provide:</p> <ul style="list-style-type: none"> a) the name of each system/channel, b) the type of transactions processed in each system/channel, c) the level of interoperability, and d) the role of the regulators in facilitating the interoperability and any specific laws that empower the regulators to mandate interoperability.
Data	<p>14. Data:</p> <ul style="list-style-type: none"> a) Population; b) Rural population; c) Financial inclusion rate;⁶⁸ d) Bank account penetration;⁶⁹

- e) Gross Domestic Product per capita;
- f) Gross National Income per capita;
- g) Mobile phone penetration;
- h) Bank branches and percentage of which are in the capital/largest city;
- i) Bank automated teller machines (ATMs) and percentage of which are in the capital/largest city;
- j) Bank 'electronic funds transfer at point of sale' (EFTPOS) terminals and percentage of which are in the capital/largest city;
- k) Branchless banking agents and percentage of which are in the capital/largest city;⁷⁰
- l) Electronic payments in relation to total payments (% , value);
- m) Payments by payer and payee (both electronic and non-electronic) (Government, Business, Person) (% , value); and
- n) Transactions (% , value) conducted via:
 - i. internet;
 - ii. mobile phones;
 - iii. EFTPOS;
 - iv. ATMs;
 - v. agents;
 - vi. branches; and
 - vii. other channels.