GOVERNMENT OF GHANA

MINISTRY OF FINANCE

DIGITAL FINANCIAL SERVICES POLICY

Front Cover Photo Credits: Fairphone, 2014 ; John O'Bryan, 2015 and Erik (HASH) Hersman, 2008
Back Cover Photo Credit: John O'Bryan, 2015

Government of Ghana

Ministry of Finance

Digital Financial Services Policy

Photo Credit: John O'Bryan, 2015

Foreword

Globalization and digitization are two major trends that will shape the future of nations. Despite the many challenges associated with adapting to increasingly globalized markets and rapidly changing technologies, Ghana is well-positioned to take advantage of these two trends as it strives to create a vibrant economy that benefits all Ghanaians.

The Government of Ghana has identified financial inclusion as a key pillar of efforts to developing its digital economy. Recognizing the importance of access to relevant and affordable financial services for all citizens, the Ministry of Finance led the development of the National Financial Inclusion and Development Strategy (NFIDS), which outlines Ghana's approach to, and specifies targets for improving financial inclusion. Given the importance of digital financial services to both furthering financial inclusion and laying the groundwork for Ghana's digital economy of the future, the Ministry of Finance has complemented the NFIDS with a Digital Financial Services (DFS) Policy, designed to serve as a blueprint for how Ghana can leverage digital finance to achieve its financial inclusion goals. Covering a four-year time period and six thematic areas, the DFS Policy clearly outlines the steps Government and industry can take to bolster the country's DFS ecosystem.

The 43 short- and medium-term action points in the Policy provide clear and consistent guidance for all stakeholders in both the public and private sectors to work together to realize a shared goal of robust digital inclusion. When implemented, it is expected that these policy actions would enhance the governance of the DFS ecosystem; create a regulatory framework that supports innovation, competition and financial inclusion; strengthen the monitoring capacity of regulators; enhance the utility of digital infrastructure; prioritize the digitization of digital use cases and consequently support the emergence and growth of FinTechs.

The DFS Policy is the result of a collaborative effort of stakeholders from Government, industry and international partners, all under the leadership of the Ministry of Finance. This type of collaboration will also be critical over the long-term, as the Ministry of Finance continues to work with a range of stakeholders to implement the DFS Policy and achieve the goals outlined in the NFIDS.

I would like to use this opportunity to congratulate the officials of the Financial Sector Division of the Ministry of Finance (MoF), Ministry of Communications (MoC), Bank of Ghana (BOG), National Insurance Commission (NIC), National Pensions Regulatory Authority (NPRA), Securities and Exchange Commission (SEC), the Swiss Secretariat for Economic Affairs (SECO), the Consultative Group to Assist the Poor (CGAP), the FinTech Chamber, Mobile Network Operators (MNOs) and all other stakeholders whose contributions resulted in the development of the DFS policy.

Ken Ofori-Atta
Minister
Ministry of Finance

Table of Contents

Photo Credit: John O'Bryan, 2015

Glossary

AML – Anti-Money Laundering

API – Application Programming Interface

B2G – Business to Government

BoG – Bank of Ghana

BTCA – Better than Cash Alliance

CFT – Counter Financing of Terrorism

COCOBOD – Ghana Cocoa Board

DFS – Digital Financial Services

DPC – Data Protection Commission

EFT – Electronic Funds Transfer

EMI – Electronic Money Issuer

FATF – Financial Action Task Force

FinTech – Financial Technology

FMCG – Fast Moving Consumer Goods

FSP – Financial Services Providers

G2B – Government to Business

G2P – Government to Person

GEPP – Ghana e-Payment Portal

GhIPSS – Ghana Interbank Payment and Settlement Systems

GIFEC – Ghana Investment Fund for Electronic Communications

GRA – Ghana Revenue Authority

GSM – Global System for Mobile Communications

InsurTech – Insurance Technology

LBC – Licensed Buying Companies

KYC – Know-Your-Customer

MDAs – Ministries, Departments, Agencies

MoF – Ministry of Finance

MOU – Memorandum of Understanding

MNO – Mobile Network Operator

NEIP – National Entrepreneurship and Innovation Plan

NFC – Near-field Communication

NFIDS – National Financial Inclusion and Development Strategy

NHIS – National Health Insurance Scheme

NIC – National Insurance Commission

NITA – National Information Technology Agency

NPRA – National Pensions Regulatory Authority

NPS – National Payments Strategy

P2G– Person to Government

PAYG – Pay as you go

POS – Point of Sale

PSSA – Payment Systems and Services Act

QR – Quick Response

RegTech – Regulatory Technology

SIM – Subscriber Identification Module

USSD – Unstructured Supplementary Service Data

VAT – Value Added Tax

Executive Summary

Improved internet connectivity, ubiquitous mobile technology, advanced computing techniques, data portability, the advent of artificial intelligence - technological advances such as these are ushering in a new era of digital financial services (DFS) in Ghana.

These technologies are enabling banks and microfinance institutions to reinvent their business models while making it possible for new types of providers to enter the market. Telecommunications operators have already taken the country's payments infrastructure into the twenty-first century, and riding on top of these digital rails, e-commerce is expected to grow rapidly. Financial technology (FinTech) is poised to revolutionize product design, delivery and user experience of financial services. Over the next decade, Ghana's retail and wholesale DFS providers are likely to mature into highly automated, interactive market players in an increasingly modularized ecosystem.

Through this policy, the Government of Ghana seeks to build on these advances to create a resilient, inclusive and innovative DFS ecosystem that contributes to social development and a robust economy with a thriving private sector. The Government envisions that by 2023:

- All Ghanaians will have access to a broad range of suitable and affordable digital financial services – including payment, credit, savings, insurance, and investment.
- Businesses and Government will have achieved greater transparency and efficiency to contribute to the economic growth of the nation.
- Payment flows would be digitized and formalised, thereby shrinking the informal economy, increasing Government revenues, and making monetary policies more effective.

To achieve these goals, the Government is committed to fostering an open and level ecosystem that welcomes these new entrants, embraces technology, and protects users. Financial stability, integrity and inclusion will increase thereby mitigating emerging risks. A growing digital financial sector requires regulators and supervisors to develop regulation that is technology-neutral, device-agnostic, principles-based, and proportional to risk, creating a level playing field for all players. It also requires sufficient technical and supervisory capacity and a clear governance structure to ensure appropriate implementation of regulation. In this context, there is an opportunity to embrace regulatory technology (RegTech)[1] and harness the power of data and technology to strengthen market oversight and customer recourse.

We, the Government of Ghana, are collectively responsible for creating a policy environment that allows businesses to innovate and thrive.Moreover, we can drive the digitization of the economy by adopting electronic payments and supporting specific digital payment use cases. We recognize that payment connectivity is more than a tool to digitize the Government's existing payment flows and that digital payments can evolve into a far-reaching platform for strengthening energy policy, food security, government transparency, and other core policies. Further, we can put in place policies that incentivize specific DFS, such as responsible digital credit, savings and insurance services, to improve the financial lives of citizens.

This policy, which establishes a Four-year roadmap (2020-2023), thereby identifies six areas for action:

1. Governance

Enhance governance of the DFS ecosystem. Action items are:

a. Strive for improved forms of dialogue between industry and the relevant regulators and supervisors, and within the Government of Ghana itself

1.2. Establish a digital task force in the Ministry of Finance focused on DFS

2. Enabling regulation

Create a regulatory framework that supports innovation, competition, and financial inclusion. The action items are:

2.1 Implement the *Payment Systems and Services Act* and issue clarifying regulations

2.2 Expand the risk-based approach to KYC to all basic transaction accounts in an equivalent manner

2.3 Strengthen and fully implement the *Consumer Recourse Guidelines* and the *Disclosure Rules for Credit Products* and create a strategy for a consumer protection framework for financial services

2.4 Ensure deposit protection over individual e-money accounts

2.5 Introduce interventions to stimulate the uptake digital insurance services

2.6 Introduce a data-sharing regulation between data controllers (banks, mobile network operators (MNOs), electronic money issuers (EMIs), social media plat forms) and other appropriately regulated DFS stakeholders

2.7 Introduce a national competition law and authority

3. Capacity building

Strengthen the capacity of the Ghanaian authorities to monitor the financial sector on matters concerning market conduct, competition and data protection, leveraging new technologies and architectures for data sharing (RegTech). The action items are:

3.1 Ensure that BoG and other financial regulators have sufficient capacity and resources to effectively supervise the DFS space, particularly with competition matters

3.2 Require all DFS providers to submit compliance reports digitally

3.3 Increase the technical capacity of the Data Protection Commission in regard to DFS data, facilitate its cooperation with financial supervisors and evaluate the need for additional measures with regard to alternative DFS data

3.4 Design a RegTech strategy across regulators

4. Market infrastructure

Develop a purpose-built infrastructure for DFS and strengthen existing payment platforms where feasible. The action items are:

4.1 Establish the biometric centralized National ID system and enable payments and other use cases though e-KYC

4.2 Upgrade the Ghana E-Payment Portal (GEPP) platform's payment and service capability, through the digital automation of forms and processes, the development of USSD and app-based access for certain services, the creation of open APIs and the re-engineering of current internal processes

4.3 Ensure effective interoperability between bank and mobile payments, including the development of a clear and neutral governance structure for the integration of mobile payments into the national switch

4.4 Complete a diagnostic of Ghana's payments infrastructure to assess missing elements of a digital infrastructure stack and develop an implementation strategy. This has already begun and should run its natural course, culminating in the Government of Ghana committing to implementing one of the presented scenarios for DFS infrastructure optimization

4.5 Monitor the coverage levels of cash-in/cash-out networks and explore potential models for encouraging their expansion to underserved areas

4.6 Implement a digital financial infrastructure stack through the creation of a virtual payment addressing system, a payment bridge and a governance structure

5. Digital payment use cases

Prioritize the digitization of payment use cases such as small-value informal pensions, government payments, remittances, merchant payments, and utility payments, leveraging technologies to improve design, delivery and monitoring. The action items are:

5.1 Support the digitization of small-value Person-to-Government (P2G) payments

5.2 Incentivize and support digital payments in the retail space

5.3 Support the digitization of public utility payments

5.4 Digitize pension contributions and distributions for the informal sector

5.5 Digitize NHIS premiums and their payment on a monthly basis

5.6 Authorize receipt and payment of international remittances directly by e-money issuers

5.7 Support the digitization of agriculture value chain payments

5.8 Subsidize the purchase and installation of homogeneous smart meters for electricity and water

5.9 Roll-out end-to-end digital delivery of Government services

6. Support FinTech

Support the growth of FinTech firms by creating incentives that encourage investments and the launch of new business models and products. The action items are:

6.1 Undertake an assessment of the policy environment in place for FinTech firms and investors

6.2 Assess the need and feasibility of a regulatory sandbox for FinTech products

6.3 Provide direct Government support for FinTech entrepreneurship

6.4 Privilege FinTech-based payment solutions for Government-to-Person and Government to Business payments

Within these six action areas, the policy maps out forty-three actions that are aligned with the priorities that the Government laid out in the National Payments Strategy (NPS) 2014-2019 and in the draft National Financial Inclusion and Development Strategy (NFIDS) 2017-2023. The actions are further informed by an assessment of the Ghanaian financial sector, the needs of local financial service providers and customers, and international best practices. Target indicators have been identified to ensure that key action points equally translate into tangible progress towards a resilient, inclusive and innovative DFS ecosystem. With these six pillars and the specific actions recommended within each category, the goal is for a Ghana's financial services landscape to exhibit the following features by 2023:

- **A holistic digital payment ecosystem for goods and services:** Individuals can pay for most goods or services simply by providing their national ID number with a biometric check or using a contactless NFC-enabled national ID card. The number of retail merchants accepting digital payments has significantly increased with the gradual roll-out of a digital payment infrastructure "stack" combined with government tax incentives. Pre-paid public utilities are paid via mobile money through pay-as-you-go (PAYG) systems connected to smart meters. Individuals can recharge their electricity meters from the comfort of their own homes, while others can pay their post-paid water bill without traveling to and queuing at a public utility cash point. Even informal vendors such as street hawkers are able to accept mobile money through QR codes or NFC-enabled USSD phones.

- **Digitized pension payments for all:** Government pension payments to both formal and informal workers, civil servant salaries and social transfers continue to be paid digitally, but rather than being immediately cashed out, this digital value remains in the ecosystem as the opportunities to pay digitally are convenient and attractive.

- **Digital payment channels maximized by financial services providers:** Banks have reimagined the customer journey with services offered evolving from multi-channel to omni-channel, focusing on highly personalized customer experiences. Non-banks such as Electronic Money Issuers (EMIs or Dedicated-EMIs) provide mobile money wallets, P2P transactions and bill and merchant payments, and partner with a variety of ecosystem players to offer more sophisticated products such as micro-insurance and digital credit. These offerings are complemented by new, white-label retail products from existing insurance providers or new InsurTech entrants, serving untapped markets. The current handful of FinTech firms have expanded their offerings to international remittances, digital investments and digital budgeting tools, leveraging access to users' data they can now collect from MNOs, EMIs, banks, and social media platforms. Thanks to expanded access to users' data (based on customer consent), they are joined by dozens of new start-ups, offering either specific innovative products such as robo-investing services and financial health building services or a whole range of competing digital products for credit, savings, insurance, and PAYG payment products that are more affordable, tailored and relevant to the needs of the mass market, including underserved populations. In this increasingly competitive landscape, the prices of financial services have decreased, rendering them affordable and desirable for all Ghanaians.

- **Digitized records for citizens (creation, retrieval and archiving):** The Ghana ePayment Portal (GEPP) platform or similar consolidated government payment portals can offer end-to-end digital ordering and delivery of the most common government services, such as renewal of drivers' licences or copies of birth certificates. Citizens can just log onto the GEPP portal via their mobile phone or at an internet cafe, and with their unique ID number and a digital photo, order and pay for a passport renewal, which can be collected in-person with biometric verification. Services that do not require any digital upload, such as ordering a copy of a marriage certificate, may even be available on a USSD phone, and the certificate can be delivered directly by the postal service or uploaded to the individual's digital locker.

- **Seamless connectivity between government and private institutions:** Behind the scenes, all major financial service providers and FinTech firms have connected to the national switch and have agreed to a governance scheme and operational and commercial rules that allow seamless interoperate. All adults hold a biometric, contactless, NFC-enabled national ID card and an ID number. A virtual simplified payment addressing system, which links a citizen's bank account to a virtual payment address such as the national ID number or phone number, has been rolled out, a digital locker for storage of individual data is in a pilot stage, and government institutions can already safely exchange necessary data. This would mean that almost all the elements of a digital payment infrastructure stack namely biometric ID, digital addressing and an interoperable switch have been put into place.

Photo Credit: Chris Burns, 2015

Photo Credit: Development UEA, 2012

Introduction

This policy sets out a vision for a resilient, inclusive and innovative DFS ecosystem in Ghana. Specifically the policy envisions that by 2023:

I. All Ghanaians have access to a large and broad range of quality and affordable digital financial services – including payment, credit, savings, insurance, and investment – that meet their needs;
II. Businesses and Government have achieved greater transparency and efficiency to contribute to the economic growth of the nation;
III. Payment flows have been digitized and formalised, thereby shrinking the informal economy, increasing Government revenues, and making monetary policies more effective.

In this policy, the Government of Ghana plays the following three roles: (1) a policy enabler for DFS, (2) a driver and user of DFS products, and (3) a beneficiary of DFS through cost savings, revenue increase and monetary policy transmission. The Government thus has multiple touch points and levers in the DFS ecosystem, and this Policy recognizes the importance of all these roles towards the achievement of this vision. This Policy is aligned with the priorities that the Government laid out in the National Payments Strategy (NPS) 2014-2019 and in the National Financial Inclusion and Development Strategy (NFIDS) 2017-2023:

- The NPS provides a strategic roadmap for payments aimed at reducing cash dependency and increasing financial inclusion.
- The NFIDS' overall objective is to increase financial inclusion from 58% to 75% by 2023. The NFIDS articulates five priority areas for financial sector development: (i) Financial stability; (ii) Access, quality, and usage of financial services; (iii) Financial infrastructure; (iv) Financial consumer protection; and (v) Financial literacy and capability. This policy complements the NFIDS by outlining a vision for how DFS can meaningfully contribute to Ghana's financial inclusion goals.

The DFS Policy establishes a 4-year (2020-2023) roadmap, agreed and defined at the national level, that is informed by an assessment of the Ghanaian financial sector, the needs of local financial service providers and customers, and international best practices. Many of the baseline indicators for this Policy's targets stem from data gathered and analysed in a 2017 country digital payment diagnostic[2] undertaken by the Better Than Cash Alliance (BTCA) in partnership with the Ministry of Finance. The goals of this policy are laid out in detail throughout this document.

Applying a gender lens to the implementation of this policy will be critical to advancing women's financial inclusion, whose access to and use of financial services continues to lag behind that of men. In general, this means that the following gender lens considerations should be front and centre as the public and private sector aims towards the implementation of this policy. Specifically, all stakeholders should:

1. Understand the market dynamics from a gender perspective, utilising existing data and collecting new data where possible on those dynamics so that this data can be used proactively to reduce the gap between financial inclusion levels for men and women;

2. Consider the normative barriers that affect women's opportunities to access and use DFS and how this and other relevant policies might exacerbate or reduce these barriers;

3. Engage local communities to grasp women's wants and needs for DFS across profiles and livelihoods (e.g. rural, urban, agriculture, commence, informal sector, etc);

4. Monitor all actions taken in line with this policy to understand their impact on gender, and keenly seek to document and address any unintended consequences;

5. Explain and advocate the business case for serving women well and promote those messages so that they translate into financial services that are more appropriate for women; and

6. Leverage online and in-person resources such as FinEquity - the CGAP facilitated community of practice focused exclusively on women's financial inclusion - to ensure best global practices are followed.


Photo Credit: Buddy Buruku, 2020

Vision For DFS (2020-2023)

Build a DFS ecosystem for the 21st century that drives economic growth, social development, opportunity, and resilience for Ghana and its citizens.

The vision that inspires this policy is anchored in the benefits that the digitization of financial services brings to Ghana's citizens, businesses, and the economy.

The shift from a cash to a digital economy will increase convenience, security and ease of use for citizens and cater to Ghanaians in both the urban and the rural areas. DFS will increasingly provide citizens with greater choice and lower prices for financial services, such as digital remittances and credit that are available at the fingertips; waiting long hours to perform these financial transactions and travelling long distances with cash in hand will become obsolete. In addition, DFS offers citizens the opportunity to access new, innovative products that are more suitable to their needs. Access to DFS also has significant potential to improve the livelihoods of women and citizens in rural areas since both are very active in the informal economy and financially excluded.

Moreover, the adoption of DFS strengthens businesses by opening transformative new pathways for access to capital for micro, small, and medium enterprises. Similarly, access to innovative digital insurance products can enable businesses to secure themselves from unforeseen events. Further, the formalization of many businesses will benefit both employees (greater access to social protection) and customers (increased protection).

Our economy will benefit from a shift to DFS as payments will become cheaper, quicker and more secure, thereby increasing the volume and value of transactions conducted in the formal economy. As more people get access to a broader range of higher quality financial services, they can start new companies, invest in themselves or their businesses, seize opportunities and protect themselves from risks or shocks. This will boost entrepreneurship, increase growth and provide a more stable economic environment.

The shift towards a DFS ecosystem will help equally strengthen Government finances through improved revenue collection and decreased leakages, thus augmenting our budgetary capacity. For example in Uganda, the Kampala Capital City Authority, which has been automating its local tax collection since 2014 through online and mobile money payment systems, has seen a 167% increase in revenue collection over 4 years.[3] In India, linking cash transfers for food and fuel subsidies to the Aadhaar digital payment infrastructure stack has saved the Indian government US$4.7 billion in 4 years[4] from diminished leakages and elimination of ghost beneficiaries while the stack overall has resulted in total savings of US$ 9 -10 billion.[5]

Further, the adoption of DFS will help reduce both administrative and transaction costs to the Government as well as monetary policy transmission lags to the real economy, thereby enhancing Bank of Ghana's ability to achieve growth and stability for all Ghanaians. For example, in Mexico the government's shift to digital payments (which began in 1997) reduced its spending on wages, pensions, and social welfare by 3.3 percent annually, or nearly US$ 1.3 billion,[6] while the Brazilian Government's Bolsa Família program reduced its transaction costs from 14.7 percent of total payments to 2.6 percent when it consolidated several benefits onto a single e-payment card.[7]

With these benefits in mind, our goal for this Policy is to drive financial inclusion by increasing both the depth (i.e., the number of formal financial services used by each individual and frequency of the transactions), and breadth (i.e., the range of services available to customers, the quality of their experience and how it caters to their health, housing, education, and sanitation needs) of their everyday financial lives.

To achieve these goals, the DFS market must be competitive, and thus embrace the potential of new products and business models developed by incumbents and new entrants, such as FinTech firms and MNOs. Between 2010 and 2015 mobile money was the main driver in increasing the formal financial inclusion (i.e., the number of adults using at least one formal financial service) from 41% to 58%,[8] and innovation will continue to be the key driver for change in the decade ahead of us. The future promises to deliver an even more rapidly changing financial sector. Improved connectivity, ubiquitous mobile technology, advanced computing techniques, data portability and the advent of artificial intelligence are thoroughly changing its shape. Technological advancements provide new opportunities for banks and microfinance institutions to reinvent their business models, and for emerging alternative providers to enter these markets. Telecommunications operators have already transformed the payments space, and e-commerce is expected to grow rapidly. FinTech[9] has the potential to revolutionize product design and delivery, and the user experience. In some countries, super-platforms such as Facebook, Google and Alibaba are making significant investments to enter the financial marketplace, in addition to providing free internet access. Over the next ten years, our retail and wholesale DFS providers will mature into highly automated and interactive market players in an increasingly modularized ecosystem.

The Government of Ghana is committed to fostering an open and level ecosystem that welcomes new entrants, embraces technology, and protects users, while concurrently increasing financial stability, integrity and inclusion in order to mitigate emerging risks. A growing, digital-led, financial sector requires our regulators and supervisors equally to develop regulation that is technology-neutral and device-agnostic, principles-based and proportional to risk, creating a level playing field for all players. In this context, there is an opportunity to embrace regulatory technology (RegTech) and harness the power of data and technology to strengthen market oversight and customer recourse.

We, the Government of Ghana, are as a whole responsible for creating a policy environment that allows businesses to thrive and innovation to spur. Moreover, we can drive the digitization of the economy by adopting electronic payments and supporting specific digital payment use cases. In fact, payment connectivity is more than a narrow tool to digitize a government's existing payment flows, since it can evolve into a far-reaching platform for strengthening energy policy, food security, government transparency, and other core policies.

However, we cannot undertake this journey alone. Industry-wide collaboration between the public and private sector will be critically needed to develop and implement a transformational road map that creates a sound, inclusive and innovative DFS ecosystem, making sure that no Ghanaian is left behind.

Targets

The following targets are derived from the 2017 BTCA country diagnostic, Bank of Ghana and GhIPSS data and other industry sources. They have been identified to ensure that key action points detailed in this Policy translate into tangible progress towards a resilient, inclusive and innovative DFS ecosystem. It should be noted that the NFIDS also contains relevant indicators, details of which are available in Annex 2. Also apart from digital payments and digital credit, no baseline data exists for the other types of DFS, and thus there are no specific indicators for these products. We therefore have instead focused on access to the general financial services product, with the target being overall increase in access.

INDICATORS FOR OVERALL ECOSYSTEM DEVELOPMENT

CATEGORY	INDICATORS	2016	2020
DIGITIZATION OF PAYMENTS	Currency outside banks to M1 ratio	39.96%[10]	30%
	Total volume of mobile money transactions (millions)	100.4	
	Total number of POS terminals in circulation	6,500	
	Total volume of POS transactions (millions)	6.7	
	Total volume of issued credit and debit cards (millions)	5.455	
	Total volume of credit and debit card transactions (millions)	46.6	
DIGITIZATION OF PAYMENTS	Number of registered mobile banking users (millions)	2.176	
	Total volume of mobile banking transactions (millions)	6.8	
	Number of registered internet banking users (millions)	.96	
	Total volume of internet banking transactions (millions)	2.7	
INFRASTRUCTURE	National biometric IDs issued to adult population (%)	<1%	90%
	Number of digital transactions on GEPP (absolute volume)		
	Number of transactions through national switch (million)	2.067	
	Value of transactions through national switch (GHS million)	447,041,343	
	Number of FSPs connecting to national switch	36	

Source: Bank of Ghana and GhIPSS data

INDICATORS FOR SPECIFIC FINANCIAL SERVICE PRODUCTS

CATEGORY	INDICATORS	2017	2020
OTHER FINANCIAL SERVICE PRODUCTS	Micro-insurance (number of lives and assets covered, in millions)	7.5[11]	10
	Savings[12] (% of households)	67%[13]	85%
	Investment[14] (% of households)	40% [15]	52%
	Digital credit (number of unique users, millions)	.25 [16]	10

Source: The Landscape of Micro-insurance in Ghana 2015, Financial Inclusion Insights National Survey 2014, and industry data for digital credit

INDICATORS FROM COUNTRY DIAGNOSTIC

CATEGORY	INDICATORS	2016	2020
DIGITIZATION OF PAYMENTS	Digital payments as a % of overall payments (volume)	1%	15%
	Digital payments as a % of overall payments (value)	37%	42%
	Digital Government payments made as a % of all Government payments made (volume)	23%	42%
	Digital Government payments made as a % of all Government payments made (value)	86%	89.5%
	Digital business payments as a % of all business payments (volume)	28%	33.5%
	Digital business payments as a % of all business payments (value)	35%	39%
DIGITIZATION OF PAYMENTS	Digital individual payments as a % of all individual payments (volume)	0.4%	5.3%
	Digital individual payments as a % of all individual payments (value)	29%	34%

Source: 2017 BTCA country diagnostic. These indicators can only be verified in 2020, as they will require a second diagnostic

OTHER RECOMMENDED INDICATORS

Several indicators have been identified which would help monitor progress towards a resilient, inclusive and innovative DFS ecosystem, but for which there is no baseline data. A study should be undertaken to determine these baseline indicators.

- **Digital insurance:** Volume and value of insurance purchased via a digital channel.
- **Digital savings:** Volume and value of savings stored via a digital channel.
- **Digital credit:** Value of loans obtained via a digital channel.
- **Digital investments:** Volume and value of investments purchased via a digital channel.
- **Digital pensions:** Volume and value of pensions contributions and pension payments received via a digital channel.
- **Gender:** Gender split for digital payments, broken down by digital payment instrument.
- **Cost:** Average cost to user for a digital transaction, broken down by digital payment instrument.
- **Proximity:** % of adults within 5km of a DFS cash-in/cash-out point.

Photo Credit: Jonathan Ernst, 2006

Monitoring and Evaluation

Based on the targets outlined in the country diagnostic, the NFIDS, and drawing on reliable data to be mined from current and future sources (both primary and secondary in nature), monitoring and evaluation of Ghana's progress should be undertaken on a consistent basis. The interval of the evaluation, the tools for measurement, and recommended interventions to be taken if any targets are not met, should be determined by a multi-stakeholder team anchored within the proposed governance structure for implementing this DFS Policy. The monitoring and evaluation should rely heavily on information from the various regulatory authorities, as well as private sector who may be able to provide insight into DFS product and service development, reach and uptake.

There is also need for a formal coordination mechanism to engage all the various public, private and development partner DFS initiatives all being implemented in Ghana. All these initiatives fall under what is the Financial Sector/Revenue Generation thematic area of the Ghana Digital Roadmap (Theme 7) recently launched by the Office of the Vice President and the Ministry of Communications. Specifically, this theme has the following areas of focus:

A. How technology can drive better policy outcomes – one that benefits citizens / organizations and can be tied directly to all government revenue streams (levies, taxes, duties, fees, penalties, etc.);

B. How technology can drive a better cash flow management – one that provides visibility into inflows and outflows and also makes it easy to allocate funding to priority areas;

C. How FinTechs can help facilitate financial transactions and relationships; and

D. Electronic Transactions

In pursuing the goals of the Ghana Digital Roadmap and the NFIDS, several DFS initiatives have begun in partnership with various government institutions. However, the sprawl of such initiatives without a coordination plan may have created some level of duplication, hampered progress and may result in a sub-optimal outcome.

It is for this reason that there is a need for a central coordinating mechanism at the highest level of government, to ensure alignment of the different stakeholders, commitment to the process, visibility and efficient use of government/donor resources. This mechanism should constitute a working group from government, technology/banking/FinTech chambers and independent subject matter experts. Development partners implementing and/or funding work in DFS should also have a role in this group in an advisory capacity.

Photo Credit: C.C. Chapman, 2012

DFS Policy Pillars

In order to achieve these targets, the DFS policy identifies six pillars for action:

1. **Governance**
   Enhance governance of the DFS ecosystem.

2. **Enabling regulation**
   Create a regulatory framework that supports innovation, competition, and financial inclusion.

3. **Capacity building**
   Strengthen the capacity of the Ghanaian authorities to monitor the financial sector on matters concerning market conduct, competition and data protection, leveraging new technologies and architectures for data sharing (RegTech).

4. **Market infrastructure**
   Develop a purpose-built infrastructure for DFS and strengthen existing payment platforms where feasible.

5. **Digital payment use cases**
   Prioritize the digitization of payment use cases such as small-value informal pensions, government payments, remittances, merchant payments, and utility payments, leveraging technologies to improve design, delivery and monitoring.

6. **Support FinTech**
   Support the growth of FinTech firms by creating incentives that encourage investments and the launch of new business models and products.

For each of the six action areas, the following action points will be implemented in the short, medium and long-term in order to achieve the targets:

Photo Credit: Buddy Buruku, 2020

ACTION AREA 1: Governance

To ensure that this Policy can be properly implemented by the financial sector regulators, the following actions are prerequisites:

1.1. Strive for improved forms of dialogue between industry and the relevant regulators and supervisors, and within the Government of Ghana itself

Given the pace of change in the digital financial services space, it is important that regulators and supervisors can find the best ways to engage with industry on an ongoing basis to identify emerging challenges early and find the best solutions quickly in conjunction with the market actors. It is of great importance that this dialogue be perceived as inclusive and free of bias in incorporating the growing range of actors involved in the space. Similarly, it is important to establish effective and regular collaboration between financial and non-financial regulators and supervisors on relevant topics, as well as within the Government of Ghana itself.

In addition, there should be formal collaboration between all DFS regulators through existing collaboration structures such as the Payments Council, as set up by the Payment Systems and Services Act 2019 (PSSA), and the Technical Committee for the NFIDS. The Payment Council is currently focused only on the stakeholders in payment ecosystem, while the Technical Committee for NFIDS already includes the regulators for investment, pensions and insurance, but its primary focus is financial inclusion. In order not to duplicate efforts, either the mandate of the Payments Council could be expanded to other digital products such as insurance, investments, savings and loans, or the Technical Committee could broaden its scope to all of DFS.

Further, Memorandums of Understanding (MOUs) should be entered into by the various DFS regulators for each of the products to encourage formal exchange and assistance between regulators and to clearly delimitate jurisdiction. The appointment of a lead regulator per product to act as the main interface and contact point for the regulated stakeholders should be a crucial element of these MOUs.

As all DFS require telecommunications connectivity, the expansion of such connectivity to areas currently not covered as well as the increase in quality of the current network coverage is key to the proliferation of DFS. Formal collaboration between the DFS regulators, the National Communications Authority and the Ghana Investment Fund for Electronic Communications is therefore equally encouraged.

1.2. Establish a digital task force in the Ministry of Finance focused on DFS

In order to ensure implementation and buy-in of the Action Points in this strategy, and to promote a broad range of digital financial products and services (e.g., insurance, credit, and savings), a digital task force focused on DFS will be created within the Ministry of Finance. The mandate of the task force would be to work closely with a similar taskforce in DFS-facing regulators (i.e. Bank of Ghana, NITA, NPRA, NIC) to evaluate issues in the DFS landscape and make recommendations on actions to their respective entities. This task force shall also be tasked with increasing awareness of and capacity in DFS in the Ministry itself, and lead the charge, particularly in the complete digitization of government payments (see Action Area 6) and will also look at market-wide topics like level playing field issues.

Photo Credit: Jonathan Ernst , 2006

ACTION AREA 2: Enabling regulation

Ghana is on the right trajectory to render its regulatory framework for digital payments enabling, even though further actions are required to unlock the full potential of a broader range of DFS:

2.1. Implement the *Payment Systems and Services* Act and issue clarifying regulations.

The Guidelines for E-Money Issuers in Ghana[17] (EMI *Guidelines)* and the Agent Guidelines[18] both came into effect in July 2015 in order to address some pitfalls of the 2008 *Branchless Banking Guidelines*. The EMI *Guidelines* allow duly licensed non-bank entities (such as subsidiaries of MNOs) to issue electronic money (e-money), and mandates e-money issuers (EMIs) to pass-through not less than 80% of the interest accrued on the pooled e-money float net of any fees or administrative costs to e-money holders. Receiving interest on the value stored is an incentive for mobile money customers to keep funds in the system instead of cashing out, with significant, positive implications[19] for financial inclusion and the evolution of the mobile money business model. The *Agent Guidelines* require both EMIs and regulated financial institutions to obtain an authorisation for agency business, and sets out agent eligibility, agent due diligence and permissible activities for agents.

The PSSA Act 987 merges the current *Payment System Act* 2003 and extends the regulatory framework to cover a variety of payment services that have not yet been regulated, including provision of technological services to facilitate switching, routing, clearing, and data management, and the facilitation of interoperability of payment systems and services among payment systems providers. The PSSA is particularly important as it will hasten the full implementation of the licensing provisions of the EMI *Guidelines*, as well as ensure the regulation of certain FinTech firms. Following the passage of *PSSA Act 987,* the Bank of Ghana will issue clarifying regulations on issues such as applicable services and institutions, licensing requirements and procedure, technology standards etc.

2.2. Expand the risk-based approach to KYC to all basic transaction accounts in an equivalent manner

The EMI *Guidelines* adopt a risk-based approach to Know-Your-Customer (KYC) for e-money accounts. There is, however, no tiered KYC currently for bank accounts. As set out in the *NFIDS,* to advance financial inclusion it is necessary to enable deposit-taking institutions to offer basic transactional accounts – with lower balance and transaction limits. This is sustainable and effective only if a tiered, simplified KYC regime can apply to these products, similarly to e-money. This would require the Bank of Ghana to update the relevant circular[20] concerning KYC for individuals to implement the Financial Action Task Force (FATF) 2012 International Standards on Combating Money Laundering and the Financing of Terrorism & Proliferation.[21] This action would fix the gaps in the three-tiered KYC approach until the biometric national ID is rolled out in full.

2.3. Create a strategy for consumer protection for financial services.

Financial consumer protection regulation should at a minimum ensure that customers: (i) receive information to allow them to make informed decisions, (ii) are not subject to unfair or deceptive practices, and (iii) have access to recourse mechanisms to resolve disputes. This protection should extend to all retail financial services and products, irrespective of the type of provider of those services and products.

Although Ghana does not have national consumer protection legislation, Bank of Ghana has already gone some way to achieve consumer protection for financial services. In February 2017, the Bank of Ghana issued both the Consumer Recourse Guidelines for Financial Service Providers[22] (FSPs) and the Disclosure Rules for Credit Products.[23] Both rules are aimed at bolstering consumer protection in the financial services sphere, the Consumer Recourse Guidelines for FSPs providing a redress mechanism for customer complaints regarding all types of financial services, and the *Disclosure Rules* providing for specific disclosure obligations of credit providers. Although technically in force, neither rule has been fully implemented and there are still gaps in these regulations, such as the lack of specific enforcement measures and a lack of clarity of the application of the Consumer Recourse Guidelines for FSPs to all payment service providers. Therefore, enforcement remains a challenge for both sets of rules.

It is an urgent priority that these recourse and disclosure rules be implemented as soon as possible once the gaps, including the lack of enforcement measures, are remedied, to ensure a strong legal, regulatory and supervisory framework for consumer protection.

In addition to the Consumer Recourse Guidelines for FSPs and the Disclosure Rules for Credit Products, the Bank of Ghana is currently also working on an array of further consumer protection regulations, including a DFS-specific consumer protection regulation as well as similar regulations for savings and current accounts and investment products. There is also a need to strengthen the enforcement of lender obligations to credit bureaus to prevent negative reporting and bolster quality of information. This is necessary to ensure consumer protection and eliminate barriers to accessing service.

As the number of DFS providers expands, there is a risk of increased complaints and fraud, and customer trust in DFS will decline if these are not properly dealt with. Although the Bank of Ghana is taking a product-specific approach to consumer protection to ensure it covers the specificities of each type of product, all types of financial services, including DFS, must be ultimately covered. As the Bank of Ghana has limited resources, the areas posing the most risks to individuals should be prioritized in this process.

Rather than adopting a piece-meal approach to regulation, (e.g. passing DFS-specific consumer protection), the Bank of Ghana should first undertake a gap analysis of the existing regulatory framework for consumer protection to identify specific actions required to create a more consistent and harmonized framework. Based on this analysis, it should develop a strategy for the creation of an overall consumer protection framework for all financial services, possibly by issuing specific regulations covering each type of product - e.g. credit, savings and payments - separately, and including specific guidelines for DFS channels in each regulation. In the spirit of consolidation, articles in the PSSA that speak to consumer protection should also be addressed in more detail and included in the relevant regulation by product.

Other sector regulators such as the National Insurance Commission and the Securities and Exchange Commission should undertake a similar exercise for DFS falling under their jurisdiction.

2.4. Ensure deposit protection for individual e-money accounts

The *Deposit Protection Act* was passed by Parliament in 2016, establishing a Deposit Corporation and introducing deposit insurance. The Deposit Corporation is still in institution-building mode, and enforcement of the Act is still a challenge. In addition, even if the bank accounts in which an e-money issuer's e-float is held is covered by the *Deposit Protection Act,* it is not clear if this protection passes on to individual e-money account holders through the concept of beneficial trusts, given the coverage limits.

The Deposit Corporation should, as a priority, put in place the basics for deposit protection. Secondly, the Deposit Corporation should issue secondary legislation to clarify how e-money accounts of individual e-money account holders are protected by deposit insurance.

2.5. Introduce interventions to ensure the uptake of digital insurance service

Given the important role that insurance plays in minimizing financial shocks, and the fact that digital insurance is well-placed to increase uptake of insurance products by the mass market, the regulators should create a micro-insurance underwriting license that allows qualified insurance intermediaries. This will create an appropriate category and requirements for underwriting micro insurance policies, without holding providers to the same requirements as traditional insurance underwriters. In addition, Government should transfer the authority over private health insurance from the National Health Insurance Authority to the National Insurance Commission to allow for combined life/health policies.

2.6. Introduce regulations governing the use and sharing of DFS user data

DFS providers are employing data analytics to develop alternative credit profiles using (i) records of clients' electronic transactions and telecommunications or social media behaviour as well as (ii) digitizing paper-based transaction data to identify potential demand for financial services such as credit, savings, and insurance.

Current market dynamics concerning data disadvantage new entrants, given that data is key to the business models of FinTech DFS providers. Several super-platforms currently control some types of this data, such as social media, while banks and telecommunication companies each proprietarily possess and control their customer data. New entrants who do not have internal access to this data are clearly at a disadvantage.

Mandating some sort of data-sharing or data portability would equilibrate the market, based on the concept that the individual is considered the owner of their data, as is the basis of the *Data Protection Act 2012.* In particular, the Government of Ghana would support the introduction of a limited data-sharing regulation between data controllers (banks, MNOs, EMIs, social media platforms) and other appropriately regulated DFS stakeholders, such as FinTechs, based on the provision of explicit user consent and the acceptance of strong customer security requirements. The data accessed under this regulation would be strictly limited to what is required for the service the user has requested. The regulation will set out technical standards and security requirements for APIs as well as requirements for customer consent and strong customer security.

This action point will require strong support from the Ministry of Communications and the Bank of Ghana in order to ensure acceptance by other stakeholders, such as banks, EMIs and MNOs.

2.7. Introduce a national competition law and authority

The primary regulator of DFS in Ghana is the Bank of Ghana. However, given that these services are usually transmitted over telecommunications networks, there are certain areas where the National Communications Authority has concurrent or exclusive jurisdiction in regards to certain DFS issues, such as access to and pricing of the USSD and other communication (bearer) channels, SIM registration and the primary regulation of MNOs that are currently undertaking DFS activities. The Bank of Ghana and the National Communications Authority are each responsible for their sector-specific regulations, and thus for the imposition of ex ante remedies for breach of these regulations. Currently this includes, to a certain extent, market conduct rules but only in regard to their regulated entities.

From a competition policy perspective, DFS markets implicate at least two industries – financial services and telecommunications - whose characteristics (significant fixed costs and sunk investments, economies of scale and scope, essential facilities and network effects) make the sector more prone to market concentration and potential anticompetitive practices such exclusionary behaviour. An independent competition authority is best placed to arbitrate such ex post issues, as it has market-wide jurisdiction and so may be able to enforce certain competition-relevant policies in DFS more broadly and across more different types of providers than the individual sector-specific regulators. Further, a competition authority is perhaps best placed to review and assess certain structural market changes, such as mergers and acquisitions, given its cross-industry and economic expertise.

Although increasing the sector-specific institutional and jurisdictional capacity of the DFS regulators in regard to competition matters is a short-term action point (see Action Area 3 below), in the long term a national competition law should be passed, and a national authority be created, to best monitor competition issues in DFS markets and enforce any required sanctions and remedies.

Photo Credit: EIFL - Knowledge without boundaries, 2015

ACTION AREA 3: Capacity Building

An enlarged, digital-first DFS ecosystem will bring challenges to the financial sector regulators due to enhanced transaction volumes as well as an augmented number of ecosystem players, which will require a series of actions to increase capacity:

3.1. Ensure that BoG and other financial regulators have sufficient capacity and resources to effectively supervise the DFS space, particularly with competition matters

There exists no national competition law, and *The Protection Against Unfair Competition Action Act 2000* contains solely provisions on acts of unfair competition closely related to intellectual property, such as confusion to a trademark or dilution of goodwill of a competitor. Anti-competitive market behaviour is thus approached by the Bank of Ghana strictly as a market conduct issue, which is an insufficient framework for complex and concentrated DFS markets. This lack of a framework in particular may affect new entrants' ability to enter these markets and compete effectively with established players.

As the introduction of a national competition law and authority is a long and uncertain process, the strengthening of the institutional and jurisdictional capacity of the Bank of Ghana, the National Insurance Commission, and the Securities and Exchange Commission in regard to competition matters for institutions offering DFS under their jurisdiction should be the first priority. This can be done through capacity building as well as the signature of Memoranda of Understanding between regulators on jurisdictional competence.

3.2. All DFS providers to submit compliance reports digitally

In order for the Bank of Ghana, the National Insurance Commission and the Securities and Exchange Commission to ensure effective implementation of the existing regulatory regimes, each DFS provider should submit regular electronic reports on a variety of DFS-related indicators, such as quality of service, agent activity, transaction volumes, complaints, and fraud. This will allow each regulator to have a more global view of the DFS-specific products under their jurisdiction and enable each to take more risk-based regulatory and supervisory approaches to these products. Equally, this information should be part of an overall effective, regular consultative process between regulators and their regulated entities.

3.3. Increase the technical capacity of the Data Protection Commission in regard to DFS data, facilitate its cooperation with financial supervisors and evaluate the need for additional measures with regard to alternative DFS data

Although the *Data Protection Act* was passed in 2012, the Data Protection Commission (DPC) has only been recently established and thus is still focused on institution building, having just started the registration process for data controllers. There has concurrently been limited cooperation with the financial supervisors and the telco regulator. As a result, very few financial services providers have been registered as data controllers, let alone DFS providers. Until the registration process has been completed, the DPC is not in a position to take any action to enforce the law.

In regard to financial services, data privacy and data security are particularly important in order to ensure the security of customers' personal and financial information, and to prevent identity fraud. Further, both traditional transaction data and alternative data, such as telecom and social media data, are at the core of the business models of most new entrants in the DFS space, while established players are learning the importance of the data they already collect for cross-selling and customer targeting purposes. There are clearly DFS-specific risks that will need to be addressed by data protection framework.

The DPC requires additional resources to successfully drive the registration process to its conclusion. The technical capacity of the DPC should be increased with training in regard to the specificities of the data created and used in the DFS ecosystem. Further, cooperation between the DPC, the financial supervisors (Bank of Ghana, National Insurance Commission, and National Health Insurance Authority) and the National Communications Authority should be facilitated to coordinate the registration of DFS providers, and if required, the enforcement of their data protection obligations. The signing of an MOU is recommended to formalize this cooperation, and to clarify enforcement and supervisory mandates. Lastly, as the Data Protection Act 2012 does not specifically address the use of alternative data in the financial sector, it should be evaluated to determine if additional regulations and measures with regards to alternative data are required.

3.4. Design a RegTech strategy across regulators

The *PSSA* includes explicit provisions giving the Bank of Ghana the mandate to carry out the oversight function over payment service providers and payment system operators. However, the capacity of the Payments Supervision department to effectively oversee the marketplace is challenged as a result of (i) the rapid growth in the number and diversity of DFS providers and channels; (ii) the increased volume of data and transactions; and (iii) the inadequacy of the tools available to the supervisors.

Likewise, the Financial Stability department, which is responsible for the supervision of banks and non-bank deposit-taking institutions as well as for consumer protection over all banking and payment products, may soon face the challenge of monitoring new digital-first or digital-only credit products, and of implementing market conduct supervision with millions of users that transact through digital channels.

Similarly, other DFS regulators such as the National Insurance Commission and the Securities and Exchange Commission see the markets under their jurisdiction expanding rapidly. Furthermore, as the DFS markets open up to new players and offer an ever-increasing variety of services, it becomes even more important to ensure that all relevant DFS data is being collected (see Action Point 2 above) and to monitor competition dynamics to ensure a level playing field for all players.

There is potential for RegTech solutions to help financial authorities improve the efficiency and effectiveness of oversight and compliance vis-a-vis an increasingly complex and data intensive marketplace. This is important because these solutions can streamline processes both for the supervisory authorities as well as the supervised entities and generate use-case specific intelligence that strengthen supervision and policy development. RegTech solutions can be used for multiple supervisory purposes, including a better understanding of the resilience of the DFS ecosystem, anti-money laundering (AML)/counter financing of terrorism (CFT) supervision, fraud detection, competition monitoring and customer protection.

The Bank of Ghana should develop a RegTech strategy identifying whether and how various RegTech solutions could add value as well as what pursuing such a strategy would require in terms of capacity, cost, and risk. Some of these solutions are particularly relevant to improving the efficiency of the Government to properly design and implement programs that digitize payments and transfers (see Action Area 5).

Photo Credit: Adam Jones, Ph.D., 2010

Photo Credit: Fiona Graham, 2016

ACTION AREA 4: Market infrastructure

Although Ghana has legacy financial infrastructure that is crucial to the adoption of DFS and to ensuring that digital value remains in the payment ecosystem, there are a series of actions that will be required to optimize this infrastructure and to lay the foundation for a new and innovative digital financial infrastructure stack:

4.1. Establish the biometric centralized National ID system and enable payments and other use cases through e-KYC

The National Identification Authority (NIA) is currently rolling out a national biometric ID. This should be coupled with the availability of online verification of the national biometric ID for service providers in order to prevent the use of fraudulent IDs.

As set out in Action Area 2, this ID can be used for e-KYC and thus to facilitate remote or non face-to-face account activation. It should be noted, however, that a digitally enabled ID system can also unlock further payments and financial service use cases. For instance, if coupled with real-time push payments which are available through GhIPSS Instant Payment and a virtual payment addressing system (see Action Point 4.6 below), the payments addressing layer can enable real-time funds transfer using ID numbers, phone numbers, email addresses, or other identifiers instead of account details, which has numerous advantages including greater security, flexibility, and competition. Integration of the biometric ID with credit reference bureaus can resolve issues that often arise with uniquely identifying borrowers and which undermine the quality of the data considerably, holding back lending. Biometric IDs can also enable data and document portability for customers if coupled with appropriate regulation and "digital lockers" for birth, marriage and employment records, financial histories, and other personal confidential information.

4.2. Upgrade the Ghana E-Payment Portal (GEPP) platform's payment and service capability, through the digital automation of forms and processes, the development of USSD and app-based access for certain services, the creation of open APIs and the re-engineering of current internal processes

Launched in 2014, the GEPP provides critical back-end infrastructure to enable online payments for government services. The National Information Technology Agency (NITA) has the primary responsibility for upgrading the GEPP platform.

Although the GEPP platform has further room for development and improvement as highlighted in the recent BTCA diagnostic, it is a key piece of Ghana's payment infrastructure that can be strengthened through further investment in terms of resources, policy direction, and capacity.

In particular, the citizen's application forms for services as well as the entire request process should be digitally automated, and once built, access should be given to all participating Ministries, Departments and Agencies (MDAs) to a citizen's "digital locker" to facilitate the exchange of information required for the delivery of certain services. Further, certain services that do not require any digital upload or complicated data entry, such as a driver's license renewal, should be accessible via USSD as well, to take into account the citizens without access to internet. Concurrently, the GEPP should create open APIs to incentivize the connection of the GEPP to third party payment platforms and integrators. To optimize all these actions, a re-engineering of the current internal processes is required. Further, certain products such as digital insurance require access to data on public hospital admissions as well as registered deaths.

4.3. Ensure effective interoperability between bank and mobile payments, including the development of a clear and neutral governance structure for the integration of mobile payments into the national switch

Ghana's national switch is managed by GhIPSS and handles the electronic clearing of cheques and the processing and settlement of bulk debit and credit transfers between banks. The switch will soon be technically interoperable with other types of payments such as bank-to-mobile wallet, mobile wallet-to-bank, and mobile wallet-to-mobile wallet transactions.

In order to ensure effective interoperability between bank and mobile payment, there should be a clear and neutral governance structure for the integration of mobile payments into the national switch. This structure should include rules concerning liability, fraud, dispute settlement, and consumer protection, and thus create a level playing field so that all ecosystem stakeholders participate and connect to this switch. This can be achieved by allowing the market to negotiate key commercial terms within a general enabling framework, rather than forcing compliance through a regulatory mandate. Thus, although GhIPSS can provide guidance on interchange pricing for the national switch, with a focus on minimal pricing for low-value transactions, it should ultimately allow market forces to determine pricing.

4.4. Complete a diagnostic of Ghana's payments infrastructure to assess missing elements of a digital infrastructure stack and develop an implementation strategy.

India has developed a digital financial infrastructure stack which has three layers of infrastructure: (i) a biometric ID database, from which each citizen is issued a unique ID number (termed Aadhaar); (ii) a virtual payment addressing system that links a citizen's bank account to a virtual payment address such as the national ID number and phone number, thus enabling the routing of payments to individuals; and (iii) a digital locker for storage of individual data that can be shared with financial service providers upon consent as well as providing a secure and virtual space into which government agencies can issue official documents. This infrastructure stack has enabled both financial inclusion and digital payments to increase rapidly in India. In particular, it has enabled e-KYC, allowing anyone with a biometric ID to open an account instantly at any customer service point in a paperless manner. Further, it has simplified payments throughout the ecosystem, as money can be sent to anyone simply by using a virtual payment address or their bank account details. Equally, it has enabled access to more sophisticated DFS such as loans, both due to the transactional data generated from the payments as well as the seamless ability to store and share other data. Lastly, the digital locker in particular allows for the decentralization of data in individual cloud-based accounts, which decreases the risk of cyber hacks and could result in the optimization of credit bureaus and collateral registries if these are plugged into the market infrastructure to enhance their utility and efficiency.

Ghana is facing similar issues to India in relation to financial inclusion and digital payments. As the Bank of Ghana and the National Identification Authority have already started work on critical elements of such a stack, such as payment services interoperability and a national biometric ID, Ghana is in a position to extract several lessons from the implementation of the digital financial infrastructure stack in India, including the possible creation of a similar digital financial infrastructure stack.

The development of a purpose-built infrastructure stack could result in (i) the simplification of payments and KYC for citizens, and (ii) the unlocking of further DFS use cases. In order to assess where the current gaps are in Ghana's infrastructure and capacity, a diagnostic should be undertaken. Concurrently, there should be extensive engagement with the stakeholders so as to guide the development and implementation process and their intended outcomes. This diagnostic and the results from the shareholder engagement should be the basis for an implementation strategy.

4.5. Monitor the coverage levels of cash-in/cash-out networks and explore potential models for encouraging their expansion to underserved areas

Given the importance of cash-in/cash-out networks-notably mobile money agents-in enabling customers to access and use digital financial services, ensuring the broadest possible coverage nationwide is an important policy objective for the Government in support of the NFIDS. The coverage and quality of these networks will therefore be monitored by the Bank of Ghana and the Government will explore potential avenues to encourage their expansion into excluded and underserved areas as needed.

Monitoring will take place through the agent database being established by the Bank of Ghana, into which e-money issuers are required to report location data for their cash-in/cash-out points. This will offer a continually updated view on the level of physical access to cash-in/cash-out networks in different parts of the country. On that basis, the Ministry in consultation with the stakeholders will establish an appropriate and realistic target commensurate with the goals in the overarching financial inclusion strategy.

The Government will then jointly with the providers consider options for expanding the reach of those networks so as to increase access and ease the path towards national financial inclusion objectives. Such options might include time-bound subsidies for establishing access points in challenging areas, perhaps through a universal service access fund similar to the role GIFEC plays for the GSM communications network. It could also include provider incentives such as coverage bonuses, minimum requirements, or some combination of both.

4.6. Implement a digital financial infrastructure stack through the creation of a virtual payment addressing system, a payment bridge and a governance structure

The implementation of the digital financial infrastructure stack - the virtual payment addressing system, the payments bridge, and the governance structure – will require long-term planning and resource allocation, as such a project requires significant capital resources as well as the prior implementation of a biometric ID and a fully interoperable payment system. Equally the project will require buy-in from several regulators, including the Bank of Ghana, the National Identification Authority, and the National Information Technology Agency and other state entities such as GhIPSS, as well as support from the private sector.

Photo Credit: John O'Bryan, 2015

ACTION AREA 5: Digital payment use cases

As highlighted in the country digital payment diagnostic, cash payments dominate the majority of transactions for most stakeholders. The digitization of payments can drive DFS by building a comprehensive ecosystem and increasing the value proposition of DFS overall. Moreover, once a significant number of citizens are on-boarded, a tipping point towards a cash-lite economy can be achieved. Indeed, the Ghana Digital Payments Roadmap to be launched by MoF along with this policy, identifies key actions and initiatives that will leverage existing strengths and opportunities in the Ghanaian payments ecosystem to implement projects with potential for high impact effective digital transformation. Whereas the roadmap serves as a more detailed implementation plan with actions for both public and private sector, this policy looks at the steps that government can take to drive this initiative. In light of this, with the limited nature of the Ministry's resources and capacity, the Ministry should drive citizen adoption of DFS payment use cases that (i) have the most beneficial impact on the population; (ii) are characterized by habitual and frequent expenditures for essential services; and (iii) are likely to increase living standards across all strata of the population. These include:

5.1. Support the digitization of small-value Person-to-Government (P2G) payments

The digitization of small-value P2G payments such as fees and fines offers convenience to citizens. This will improve revenue collection and reduce rent-seeking behaviour as no face-to-face interaction will be required. Even more importantly, the Government can strongly lead by example in digitizing these payments.

The difficult work of building a central e-services and e-payments portal and on-boarding most of the payment providers has been already undertaken by GEPP and the National Information Technology Agency. However, there is still a lot of work to be done in order for digital small-value P2G to become ubiquitous.

The Government intends to move to digital payments exclusively for government fees and fines, and to leverage GEPP as the central payment infrastructure for MDAs, while promoting greater choice and competition. In order to achieve this, in addition to the various measures set out to upgrade the GEPP set out in Action Area 3 above, the Ministry will undertake an audit of available Government services whose payments have not been digitized, to determine their priority in MDA integration, given its limited resources. Once the prioritized MDAs are identified, the Government can provide support to improve the technical capacity of these prioritized MDAs as well as current GEPP participating MDAs to migrate to digital payments.

Second, as the current transaction fee levied on the GEPP may be a barrier to adoption, the Ministry of Finance, with inputs as relevant from the Ministry of Communications, will negotiate with FSPs to lower costs or even offer discounts for digital payments through the GEPP to incentivize citizens to pay electronically. Third, the Government will undertake a public awareness campaign of the GEPP and digital P2G payments.

Government's short-term objective is to expand the number of available, frequently used and essential P2G services on the GEPP platform, to lower the cost of usage of digital payments and to raise public awareness, in order to incentivize public use.

5.2. Incentivize and support digital payments in the retail space

According to the recent country payment diagnostic, 99.9% of payments for consumption goods by volume are in cash, and these make up 94% of all payments by volume. Digitizing these payments is therefore the most effective way to reduce the overall use of cash in the economy and thereby bring down the substantial costs incurred by the Government as well as by businesses from cash production, handling, transport, safekeeping and destruction.

Furthermore, digitizing even a small number of these transactions will not only substantially increase citizens' participation in the digital payment ecosystem, it will also open up new paths for access to capital and insurance for small businesses that are typically excluded from formal financial services. Lastly, as women make up a large proportion of those selling retail goods, digitization in this area will also directly improve their businesses and personal security as well as offer further economic opportunities.

Although digitization of retail payments requires a concerted, collective industry effort and engagement from all players of the value chain, Government support is also important. Recognizing that tax concerns related to formalization is a significant obstacle to adoption of digital payments by many small businesses, the Ministry commits to placing a moratorium on the use of digital payments data for tax assessments for the duration of this strategy and to consider the question once more at the end of it.

Furthermore, the Ministry will encourage merchants and other payment acceptors (e.g., billers, farmers) and this will encourage the use of digital payments. In particular, it will offer tax incentives (i) to Fast Moving Consumer Goods (FMCG) companies that successfully shift merchant payments to electronic through trade discounts; (ii) to financial service providers (FSPs) that support the roll-out of electronic merchant payments; and (iii) to retailers and individuals that actively adopt electronic payments. These incentives may take various forms, from lowering VAT on purchases up to a given threshold made with digital payments, to lower deemed profit tax rates of merchants and other businesses for amounts received through banks and digital channels and customer income tax rebates for an annual expenditure report on payments made by digital means. It could also include directly paying the merchant fee for small-value purchases, like India has recently started doing.[24]

These measures will be supported by other efforts to support digital payments in retail. One is to encourage interoperability and standardization across providers in terms of technical standards, pricing, user experience, liability and recourse rules, etc. in order to facilitate adoption. Another is an awareness campaign targeting customers as well as merchants on the usage and benefits of digital payments, in order to counter any lack of trust in digital payments and the fact that such services are not yet broadly perceived to be convenient.

5.3. Support the digitization of public utility payments

The digitization of the payment of public utilities such as water and electricity is particularly important. This is particularly so due to the large amount of cash (99.84%)[2] that is currently being used for these payments, the sizeable impact that digitization of such payments would have on the population (80% of the population uses at least one, if not both, of these services) and the Government's role as ultimate shareholder in these utility companies. In the case of off-grid electricity, access to such energy via digital payment provides a tangible incentive for users to register for and actively use many other digital payment services, such as a mobile money account. The digitization of on-grid utility payments, especially if they enable end-to-end digital distribution through smart meters, would also provide an entry point to a large segment of the financially excluded and enable them to access a variety of formal financial services.

To support this digitization, the Government will provide financial and technical support to public utility companies to update their internal accounting processes, including their accounting/reconciliation software/ platforms, in order to solve issues arising with reconciliation and fragmented databases. Secondly, it will deliver technical support to assist public utilities which have not yet rolled out digital payments (e.g. electricity, sanitation) in crafting effective partnerships with FSPs to implement the acceptance of digital payments both for prepaid and post-paid utilities, and particularly for existing smart meters.

5.4. Digitize pension contributions and distributions for the informal sector

Approximately 60% of the population works in the informal sector, many of whom are financially excluded. The Government revealed in its 2018 Budget the development of an Informal Sector Pension Scheme under the third tier of the National Pension Scheme which will be first piloted in the Cocoa sector. The scheme can complement the efforts of private sector corporate trustees.

Given the high number of individuals who are financially excluded in the informal sector, the scheme should focus on using digital payment both to accept contribution payments and disburse pension payments. A national state pension scheme for informal workers that leverages digital payment would provide social protection to these citizens in their elderly years, bring informal workers into the digital payments ecosystem, and incentivize the adoption of other DFS, such as savings and credit.

5.5. Digitize NHIS premiums and their payment on a monthly basis

Premiums to the National Health Insurance Scheme (NHIS) are currently paid in a yearly lump sum in cash. Digitizing these payments, and enabling monthly payments, will make it easier for the non-exempt individuals to afford the scheme as well as render payments more convenient. As the entire population is eligible for registration to the NHIS and registration brings important health benefits, these payments are a good entry point into the digital payments ecosystem for a significant proportion of currently financially excluded individuals.

5.6. Authorize reception and payment of international remittances directly by e-money issuers

World Bank study in 2018, showed Ghana received US$ 3.8 billion in remittances.[25] Currently the fees for international remittances can be significant, especially in regard to low-value transfers, and most of these funds are immediately cashed out, and thus taken out of the digital payments ecosystem. Beneficiaries of international remittances should have a variety of low-cost options to receive funds directly into their mobile wallets instead of over the counter. Terminating remittances digitally ensures that funds remain in the DFS ecosystem and provides an entryway to other digital-based financial services.

Currently only money transfer operators and banks are authorised to undertake such an activity, so any digital payment solution requires a partnership and includes the high transfer fees charged by these organisations. EMIs and other digital payment providers could directly offer this service at very low rates if authorized. Such lower transaction fees may incentivize individuals to switch from informal money transfer methods, funnelling funds into the formal payments ecosystem.

5.7. Support the digitization of agriculture value chain payments

The agricultural sector in Ghana has challenges with fragmentation, lack of transparency, inefficiency and lack of coordination. Digitization of the sector's activities can address some of these challenges by introducing transparency, improving efficiency and reducing risk. With several examples of successful agricultural payment digitization initiatives in Ghana, government has an opportunity to replicate that success across the entire sector through policy. Such efforts must go beyond the priority value chains such as cocoa, which have been structured under the administrative board.

Government's effort can include a directive to buyers in selected value chains to pay all farmers digitally. This directive can subsequently be scaled to other value chains. There is significant momentum towards digitization of farmer payments within the cocoa sector, both driven by industry and the COCOBOD which is the government body overseeing the value chain. Several licensed buying companies (LBCs) are piloting digital farmer payments (both using e-zwich cards and mobile money) while COCOBOD is also committed to shifting to digital disbursement for all their subsidies. A government directive on shifting payment away from cash would have a significant impact on accelerating this trend, have significant benefits for the farmer and drive financial inclusion in rural areas. Though there is most progress currently in cocoa, the government directive should cover all value chains in order to expand the ecosystem for DFS.

In addition to stimulating payments, government should look closely at the intersection of digitalization and lending. As government continues to explore innovative ways to drive lending to the agricultural sector especially smallholder farmers, digital credit presents a viable opportunity to achieve that objective. The constraints associated with using traditional lending models to assess smallholder farmers, often do not apply to digital credit. This policy therefore presents an opportunity to appropriately assess smallholder farmers and extend credit to them as well as other actors in the value chain.

5.8. Subsidize the purchase and installation of homogeneous smart meters for electricity and water

Although the digitization of payment for post-paid public utilities will save customers the time required to pay a bill as well as result in savings and revenue for the utility, it will only provide an incremental benefit to the parties, as there is no end-to-end digital distribution of the service. Achieving public utility end-to-end digital payment and delivery of services will reduce significantly a customer's overall transaction costs in obtaining the services, as well as eliminate payment delinquencies for the public utility.

The solution for end-to-end digital payment and distribution is the smart prepaid meter, which allows for remote meter reading and crediting via digital payment means such as mobile money. Currently there are no smart water meters, and only 20% of post-paid electricity meters are smart (of which there seem to be many different meters that require different communication protocols). As the roll-out of smart meters is a significant capital investment for public utilities, the Government plans, in the long term, to subsidize the purchase and installation of homogeneous smart meters for electricity and water.

5.9. Roll-out of end-to-end delivery of Government services

In order to achieve full digitization of small-value P2G payments, the main pain point of the citizens must be addressed – that obtaining a government service may require several trips to the relevant MDAs, and long waiting times when there. The roll-out of end-to-end delivery and payment of government services significantly reduces a citizen's transaction costs and will be an important accelerator for adoption. Therefore, the Government's long-term objective is to ensure this end-to-end digital service provision for its services.

It should be noted that this roll-out can be done either by centralizing all service provision through the GEPP or by using the GEPP as the user interface and payment tool and redirecting to the MDA websites for service fulfilment. The digital automation of forms and process, the development of a digital locker for exchange of information, and the development of USSD access for certain services, as set out in Action Area 4, will create the building blocks required.

Photo Credit: John O'Bryan, 2015

Photo Credit: Dominic Chavez, 2015

ACTION AREA 6: Support FinTech

FinTech firms are crucial actors in rendering the DFS ecosystem competitive. With increasing smartphone penetration and a regulatory regime that is already embracing innovation in payments, the Ghanaian FinTech firms that are active in the payments space are already well placed to mobilize and grow. There are, however, certain actions that can be taken to ensure a more conducive environment for all FinTech firms in Ghana, which will create increasing opportunities for DFS:

6.1. Undertake an assessment of the policy environment in place for FinTech firms and investors

The Government is committed to supporting start-ups with its National Entrepreneurship and Innovation Plan (NEIP), which was presented in the 2017 budget and officially launched in July 2017. It aims to provide integrated support to early stage (start-ups and small) businesses, focusing on the provision of business development services, business incubators, and special funding for youth-owned businesses.

In addition, the tax regime is generally enabling for investors and start-ups. Five-year tax exemptions in respect to corporate income tax, dividend tax and capital gains tax are available to investors, as well as the carrying forward of losses from any such investment post the exempt period up to 5 years. The Government has also revealed in its 2018 budget the granting of tax holidays, under the NEIP, to young Ghanaian entrepreneurs of age 35 years and below who start their own businesses, followed by a preferential tax rate between 3 to 5 years after the tax holiday and the ability to carry forward losses for five years.

Further, since 2016, online business registration and other company services have been possible on the Ghana Revenue Authority website, with digital payment via the GEPP platform.

There is, however, still much work to be done to ensure a conducive environment for FinTech start-ups in Ghana. As set out in Action Area 2, further reform and legislation is required to ensure all FinTech start-ups in DFS are competing in an open and level ecosystem. Moreover, the current tax measures seem ineffective in attracting investors, and the implementation of NEIP, including its tax provisions, has only commenced. There are also other legal and regulatory measures which may be slowing start-up growth, such as company, labour and/or intellectual property regulation. It is therefore an opportune moment to undertake an audit of all relevant measures to identify concrete actions in the legal, regulatory and tax domains that may support start-ups and investors.

6.2. Assess the need of a regulatory sandbox for FinTech products

One of the biggest challenges many FinTechs face is the pace at which their sector regulators can assess and approve innovation. This has increased the need for government to assess the need for regulatory sandboxes. However, in order to avoid a sprawl of sectoral sandboxes, government must pursue a harmonised approach for sandboxes.

6.3. Provide direct Government support for FinTech entrepreneurship

In addition to implementing any recommendations that result from the audit, there are specific direct measures the Government can take to support FinTech entrepreneurship.

First, within the framework of NEIP, specific innovation hubs that support young entrepreneurs in Ghana's FinTech industry should be developed. These hubs should offer venture incubation, business and skills development, and the fostering of multinational and global partnerships. This approach can also be replicated in other national initiatives on entrepreneurship, employment and innovation. Second, Government should sponsor profile-raising local and regional conferences and events to support the local FinTech industry as well as existing accelerators, incubators, and common workspaces. Lastly Government should champion technology- and entrepreneurship-friendly curricula in universities and vocational schools to help grow the next generation of FinTech entrepreneurs.

These types of support measures will most likely be piloted by the NEIP, so the MoF must ensure communication with the NEIP to avoid duplication of efforts and to identify specific areas for its action.

6.4. Privilege FinTech-based payment solutions for Government-to-Person and Government-to-Business payments

Many Government payments are already digitized, as most Government-to-Person (G2P) payments are made by bank transfer (e.g. salaries of civil servants and pensions) and e-zwich (e.g., social transfers), while Government-to-Business (G2B) and Business-to-Government (B2G) payments are by cheque or EFT, and Person-to-Government (P2G) payments are mainly cash. The use of local FinTech solutions to facilitate these payments, however, is mostly absent. The Ministry of Finance and other Ministries will proactively adopt FinTech solutions for their own digital payments (both G2B and G2P), both to harness the cost savings and efficiency of digital payments and to serve as a role model to citizens and businesses. This roll-out could be coupled with a RegTech solution to allow for the planning and monitoring of G2P and G2B payments (see Action Area 3). These actions signal strong support of innovation and FinTech.

Photo Credit: Startup inside, 2017

Annex 1: Timeline of Action Points

The timeframe for reaching the various milestones is outlined below:

Short-term action points (12-18 months):

AREA	ACTION POINT
1	Strive for improved forms of dialogue between industry and the relevant regulators and supervisors, and within the Government of Ghana itself
	Establish a digital task force in the Ministry of Finance focused on DFS
2	Strengthen and fully implement the *Consumer Recourse Guidelines* and the *Disclosure Rules for Credit Products*
	Create a strategy for a consumer protection framework for financial services
	Ensure deposit protection over individual e-money accounts
3	Ensure that BoG and other financial regulators have sufficient capacity and resources to effectively supervise the DFS space
	Require that all DFS providers to submit compliance reports digitally
	Increase the technical capacity of the Data Protection Commission in DFS data
4	Facilitate DPC's cooperation with financial supervisors and evaluate the need for additional measures with regard to alternative DFS data
5	Establish the biometric centralized National ID system and enable payments and other use cases though e-KYC

AREA	ACTION POINT
	Upgrade the Ghana E-Payment Portal (GEPP) platform's payment and service delivery capacity through the digital automation of forms and processes, the development of USSD access for certain services, the creation of open APIs and the re-engineering of current internal processes
	Ensure effective interoperability between bank and mobile payments, including the development of a clear and neutral governance structure for the integration of mobile payments into the national switch
	Undertake a diagnostic of Ghana's current infrastructure to assess missing elements of a digital payment infrastructure stack and develop a strategy for implementation, accompanied by stakeholder engagement
	Monitor the coverage levels of cash in/cash out-networks and explore potential models for encouraging their expansion to underserved areas
6	Support the digitization of small-value P2G payments
	Incentivize and support digital payments in the retail space
	Support the digitization of public utility payments
7	Strengthen the enforcement of lender obligations to credit bureaus to prevent negative reporting and bolster quality of information
8	Undertake an assessment of the policy environment in place for FinTech firms and investors
	Assess the need for a regulatory sandbox for FinTech products
	Provide direct Government support for FinTech entrepreneurship
	Privilege local FinTech-based payment solutions for Government to Person and Government to Business payments

Medium-term action points (18-36 months):

AREA	ACTION POINT
1	Strengthen the institutional and jurisdictional capacity of DFS regulators in regard to competition matters
2	Introduce the digitization of pension contributions and distributions for the informal sector
	Introduce the digitization of NHIS premiums and their payment on a monthly basis
	Authorise the receipt and payment of international remittances by e-money issuers
	Support the digitization of agriculture value chain payments
3	Support digital credit for the agricultural sector

Long term action points (>36 months):

AREA	ACTION POINT
1	Introduce regulation governing data sharing among data collectors (banks, MNOs, EMIs, social media platforms) and other appropriately regulated DFS stakeholders
	Introduce a national competition law
2	Design a RegTech strategy across regulators
3	Implement a digital financial infrastructure stack through the creation of a virtual payment addressing system, a payment bridge, and a governance structure
	Further expand telecommunications connectivity
4	Subsidize the purchase and installation of homogeneous smart meters for water and electricity
5	Create a micro-insurance underwriting license that allows qualified insurance intermediaries
	Transfer the authority over private health insurance from the National Health Insurance Authority to the National Insurance Commission to allow for combined life/health policies

Photo Credit: Jonathan Ernst, 2006

Annex 2: NFIDS targets applicable to DFS Policy

CATEGORY	INDICATORS	2015 / 2016	2020	2023
FORMAL FINANCIAL INCLUSION	Ghana (adults)	58%	70%	85%
	Women (adults)	57%	70%	85%
	Rural (adults)	51%	65%	80%
	Poorest quintile (adults)	41%	55%	70%
DIGITIZATION OF PAYMENTS	Registered Mobile Money Accounts (Million)[26]	19.7	34.0	36.0
	Active Mobile Money Accounts (Million)[27]	8.3	14.0	17.0
PENSIONS	Number of individuals with a Tier III Pension Plan[28]	148,882	289,744	349,465

Source: NFIDS

Photo Credit: Gunnar Salvarsson, 2014

Endnotes

[1] "Accelerating Regtech for Regulators", accessed 9th June 2019,
[2] "Country Diagnostic: Ghana", Better Than Cash Org. 2017.
[3] BTCA, 2016
[4] Raman, A. 2017. India Government estimates, in a presentation titled "India Stack", October 10, 2017.
[5] "Direct Benefit Transfer", Government of India. 2019. Accessed 25 June 2019,
[6] Babatz, G. 2013. "Sustained Effort, Saving Billions: Lessons from the Mexican Government's Shift to Electronic Payments". In Better Than Cash Alliance Evidence Paper: Mexico Study, 1st November 2013,
[7] Lindert, K, Linder, A, Hobbs, J, & De la Briére, B. 2007. "The Nuts and Bolts of Brazil's Bolsa Família Program: Implementing Conditional Cash Transfers in a Decentralized Context." World Bank Social Protection Working Paper No.0709,
[8] FII Ghana Survey 2014.
[9] Financial technology is the new applications, processes, products, or business models in the financial services industry, composed of one or more complementary financial services which are provided as an end-to-end process via the Internet.
[10] Figure is from 2014.
[11] This figure is from 2014, but based on anecdotal industry data, it is still representative of the current position.
[12] FII Ghana Survey 2014. "Savings" is defined as any safekeeping instrument, including formal instruments (bank accounts, mobile money, MFI accounts) and informal instruments (in safe place, with other individuals).
[13] FII Ghana Survey 2014.
[14] FII Ghana Survey 2014. "Investment" is defined as any instrument which may bring a return, including government bonds, company shareholdings, physical assets, and owning of own business.
[15] FII Ghana Survey 2014.
[16] This figure dates from 2017 and is an industry estimate.
[17] Bank of Ghana, 2015. "Guidelines for E-money issuers in Ghana".
[18] Bank of Ghana, 2015. "Agent Guidelines".
[19] GSMA, 2014. "Should the interest accrued on the trust or escrow account be paid out to mobile money customers?".
[20] Bank of Ghana, 2011. "Know Your Customer Policy", 14th January 2011.
[21] FATF, 2012-2018. "International Standards on Combatting Money Laundering and the Financing of Terrorism & Proliferation, FATF, Paris, France.
[22] Bank of Ghana, 2017. "Customer Recourse Mechanism Guidelines for Financial Service Providers", 20th February 2019.
[23] Bank of Ghana, 2017. "Disclosure and Product Transparency Rules for Credit Products & Services".
[24] Times of India, 2017. "Government will bear merchant charge on debit card purchases up to Rs 2000". TOI, 16th December 2017.
[25] World Bank Group.
[26] Data is from 2016.
[27] Data is from 2016.
[28] Data is from 2016.

Photo Credits: Buddy Buruku, 2020