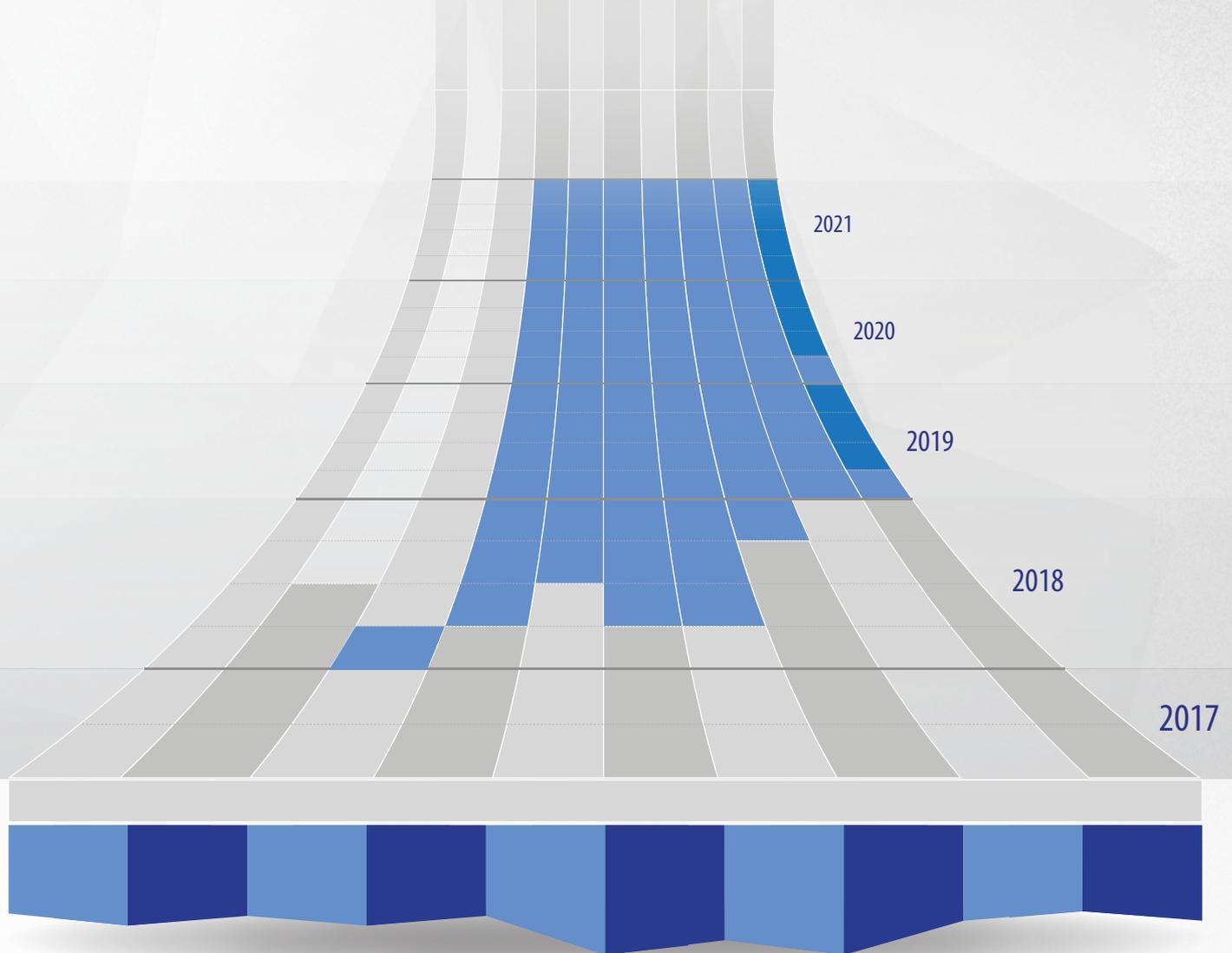


# GOVERNMENT OF MALAWI PAYMENTS ROAD MAP

A **FIVE-YEAR** PLAN TO **DIGITIZE**  
GOVERNMENT PAYMENTS IN **MALAWI**



BETTER THAN CASH  
ALLIANCE





## ACKNOWLEDGEMENTS

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Finally, we would like to thank the various people who provided information, from government, financial service providers, industry bodies, technology providers, telecommunications operators and donor agencies (as listed in annex 3), for their time and critical insights that guided this document.

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## PREFACE

This payments roadmap is a strategic framework formulated to inform the commitment by the Government of Malawi to make the shift from cash to digital payments. It is also intended to help develop a pervasive digital payments ecosystem that will improve financial inclusion, accountability, efficiency and transparency of the payments system as well as to reduce costs associated with a cash-based system.

Malawi is still a heavily cash-based economy; most payments (both in volume and value) are made in cash. The Government continues to rely on cash and cheques for most of its payments. Payments to and by businesses have been digitized more than any other type of payments; however, they represent a tiny fraction of overall payments in the country by volume, which presents some difficulties regarding transparency and security. These difficulties have increased the impetus to accelerate the shift to digital payments.

As part of its Public Service Reforms Initiative, the Government is committed to advancing digital payments. It is recognized that the digitization of payments will contribute to achieving social and economic goals of the country as outlined in the Malawi Growth and Development Strategy. The Public Service Reforms Initiative is dedicated to improving the delivery of public works, including government financial management systems. The Government aims at digitizing the majority of government-to-person and person-to-government payments in the next five years. The benefits of this shift are many and include reduced costs associated with cash-based payments, increased transparency and accountability, increased efficiency in the delivery of social services and improved access to financial services. The Government believes that creating an economy where digital payments are widely available is the right path for the country.

The Government is also implementing the Public Financial and Economic Management Reform Programme aimed at strengthening its public finance management systems. Moving towards a digital payments system will therefore go a long way in strengthening the public finance management systems in the country through an efficient, speedy and transparent government payments system.

Furthermore, realizing the important role that an efficient and effective payments ecosystem plays, transitioning to digital channels is also part of government efforts in developing the financial sector. This initiative therefore will contribute to the implementation of the Financial Sector Development Strategy and will also complement the National Strategy for Financial Inclusion.

This roadmap has been prepared after thorough consultations and through consensus by all relevant stakeholders, including the Government and private sector and development partners. It is a reflection of hundreds of conversations with more than 100 stakeholders in the last year. I am confident, therefore, that the commitment that prevailed during its preparation process will continue during its implementation.

Ben Botolo  
SECRETARY TO THE TREASURY

# 1

## EXECUTIVE SUMMARY

In 2013, Malawi was one of the first countries in the world to make a commitment to the Better Than Cash Alliance (BTCA). This commitment acknowledged the benefits that digital financial services (DFS) hold for Malawians (e.g. transparency, security, cost savings, creation of new economic opportunities for women, financial inclusion and economic growth.) and focused on the government shift from cash to electronic payments. This roadmap is a detailed articulation of how the Government of Malawi (GoM) intends to deliver on this commitment.

The vision for digitization of payments in Malawi is a country where every Malawian is financially resilient and where all sectors work together to ensure accessibility to inclusive DFS with appropriate value propositions in a properly regulated environment that sustains service providers. Three major objectives need to be met as part of the realization of this vision. The first is improved access to financial services, culminating in an increase of financial inclusion from 34% to 55% of the adult population and an increase in formal rural inclusion from 28% to 45% by 2021. The second objective is an increase in volume of government payments through digital channels from 10% to 60% by 2021. The third objective is a reduction of transaction costs by 50% as a result of digitization.<sup>1</sup>

The vision is expected to be realized against the backdrop of strides the country has made in improving infrastructure, by way of launching an automated transfer system (ATS) and central securities depository (CSD)—named Malawi Interbank Transfer and Settlement System (MITASS)—and National Switch Limited (NSL). Both MITASS and NSL were funded by the World Bank under the Financial Sector Technical Assistance Project (FSTAP). MITASS settles and clears digital transactions efficiently regardless of value. CSD facilitates the electronic settlement of primary issues of government securities, Reserve Bank of Malawi (RBM) open-market operations and interbank money-market operations. The country has attained interoperability of automated teller machines (ATMs) and point-of-sale (POS) devices through the launch of NSL in 2015, which is expected to promote digitization of payments by allowing customers to access cash at ATMs and POS of banks other than where they opened their bank accounts. NSL will also enable interoperability of mobile payments and integration of microfinance institutions (MFIs), thereby easing access to payment services by the majority of Malawians and especially low-income earners.

Critical success factors have been identified, which GoM must address if digitization of payments is to become a success. The critical success factors are the following:

- Political commitment and enabling policy/regulatory environment
- Improved financial infrastructure
- Improved digital payments ecosystem
- Improved financial literacy and awareness
- Learned global experiences

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<sup>1</sup> Please note that currently there is no established baseline for transaction costs. Therefore, the authors acknowledge that part of the roadmap to achieving these objectives is to study and articulate the average transaction cost for financial services.

To achieve these critical success factors as well as the roadmap projects, which correspond to the critical success factors, GoM leadership requested a section defining roles and responsibilities of the relevant stakeholders. There are also milestones and delivery dates to further articulate these responsibilities. These milestones and deadlines have been agreed upon and are articulated in section 6.

Implementation of this roadmap is suggested on a parallel track. It is clear that there are various enabling environment constraints to achieving the vision that must be addressed—these require support. However, at the same time, GoM can and should transition its payments from cash to electronic in a careful, sequenced manner. The sequence suggested in the roadmap first focuses on mass electronic payments (also known as bulk payments), then remote bill payments and next merchant payments (POS devices and mobile). Implementation of these use cases will not only provide examples for the rest of government payments to be shifted but also strongly contribute to the completion of success factors and outcomes described above. The projects are scheduled to be implemented within a period of five years (2017 to 2021), with some mass electronic payments, such as payments to chiefs under the Ministry of Local Government and Rural Development (MoLGRD), scheduled to begin in 2017. Some projects arise from issues regarding critical success factors. These projects are capacity-building and regulatory-support projects and financial-literacy and awareness projects. Implementation of the roadmap is summarized in figure I on page 15. This roadmap is intended to be a reference document for GoM and development partners to assist in planning and investment decisions. It is important to acknowledge there are a number of development partners, including the World Bank through FSTAP, that will address several elements of this document in both existing agreements with GoM as well as in potential future agreements.

A key next step for successful implementation of this roadmap will be the formation of Steering and Technical Committees. The main function of the Steering Committee shall be to provide overall leadership and strategic direction in the implementation of the roadmap. The Steering Committee will make all key decisions and approve work plans, budgets and investment decisions. The Steering Committee shall be chaired by the Secretary to the Treasury at the Ministry of Finance, Economic Planning and Development (MoF), and shall have the following members:

- Deputy Governor, Economics, RBM
- President, Bankers Association of Malawi
- Director General, Malawi Communications Regulatory Authority (MACRA)
- Accountant General, MoF
- Principal Secretary, Ministry of Information, Communications Technology and Civic Education
- Chief Director, Reforms, Office of the President and Cabinet (OPC)

An inclusive Technical Committee on digitization shall be chaired by the Director of the Pension and Financial Sector Policy Division at MoF. The function of the Technical Committee shall include implementing the roadmap, developing work plans and budgets, recommending investments and preparing progress reports. The Technical Committee shall, if deemed necessary, propose the establishment of sub-committees for approval by the Steering Committee. It shall have the following members:

- Director, National Payments System (NPS) Department, RBM
- Assistant Accountant General, MoF
- Executive Director, Bankers Association of Malawi
- Commissioner General, Malawi Revenue Authority (MRA)
- Director, Public Service Reforms, Office of the President and Cabinet
- Director, E-Government, Ministry of Information, Communications Technology and Civic Education
- CEO, NSL

- Representative, DFS Coordinating Group<sup>2</sup>
- Director, National Registration Bureau
- Director General, MACRA

These two committees shall oversee and spearhead the implementation of this roadmap, including resource mobilization and approval of proposed projects. The Technical Committee shall report to the Steering Committee. MoF, through the Pension and Financial Sector Policy Division, shall be secretariat to both the Steering and Technical Committees and will facilitate development of terms of reference that shall further elaborate functions of these two committees.

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<sup>2</sup> DFS Coordinating Group membership includes MoF, developmental partners (FHI360 and UNCDF), banks, MNOs, RBM, Malawi Posts Corporation, Bankers Association of Malawi and Malawi Microfinance Network.

## 2 INTRODUCTION

Malawi became a member of BTCA in 2013. As part of its commitment to BTCA, GoM through MoF and in consultation with RBM and the World Bank drafted this payments roadmap with the technical assistance of the United Nations Capital Development Fund (UNCDF) and financial support from the United States Agency for International Development (USAID). The roadmap provides a framework for digitization of government payments and outlines the following: the vision of GoM and measurable objectives, critical success factors, stakeholder roles and responsibilities, potential projects to be undertaken, priority payment streams lined up for digitization, and required actions and steps to make the transition from cash to electronic.

### **Alignment with government mandates and frameworks**

This roadmap is consistent with relevant strategies, frameworks and documents in the following ways:

- The roadmap is consistent with the Malawi Growth and Development Strategy, which has as its overarching objective to help attain long-term growth and development aspirations of the country.<sup>3</sup>
- It is aligned with the Financial Sector Development Strategy (in draft for its second phase), which has the overall goal of achieving financial inclusion as well as building a financial sector that supports financial services and stimulates sustainable economic growth.
- In regard to the financial inclusion agenda, the roadmap contributes to the implementation of Making Access Possible and the National Strategy for Financial Inclusion.
- It supports implementation of the NPS Vision and Strategy Framework, which is championed by RBM and aims at NPS improvement in Malawi.
- The roadmap is a component of and complements the larger National Payments Roadmap that RBM is developing to help digitize ALL payments in Malawi.
- It is in line with the draft EFT Risk Assessment from the Accountant General's office, as well as their upcoming Roadmap for EFT for Government in Malawi.
- It is aligned with national reforms initiative which was previously led by the Public Service Reforms Commission (currently being championed by Office of the President and Cabinet) , specifically its report, 'Making Malawi Work,' which is aimed at ensuring the transparent and quality delivery of public services and public financial management.
- The roadmap closely reflects the USAID-funded, FHI360-produced 'Mobile Money Regulatory and Policy Assessment.
- It takes into consideration the National Strategy for Financial Literacy championed by RBM.
- It is in line with the public financial management work by the World Bank through FSTAP.

The authors acknowledge that many of the documents mentioned above are in draft form and not publically released, but stakeholders have confirmed that this roadmap is aligned with and complimentary to all of them.

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<sup>3</sup> Malawi, Ministry of Finance and Development Planning, *Malawi Growth and Development Strategy II 2011–2016* (Lilongwe, 2011). Note that it is also championed by the National Payments Council.

The roadmap also builds on the findings of the BTCA country payment diagnostic exercise that was conducted in 2013. The diagnostic report shared, amongst other things, that the majority of payments in Malawi are made through cash or cheques, with only 0.3% out of 221 million monthly payments being electronic. The report revealed a similar level of digitization for government payments, with only 0.3% out of 388,518 transactions being electronic. Since the payment diagnostic exercise was conducted, there has been notable improvement in active users of DFS (mostly mobile money), going from 1,000 active users (90 days) in 2012 to approximately 750,000 as of 31 December 2015. Despite this improvement, the majority of payments are still dominated by cash and cheques. It is also important to acknowledge that 100% of civil servant salary payments are paid via MITASS, as of December 2015, which has contributed significantly to the number of government transactions processed electronically.

### **Process of building the roadmap**

Development of this roadmap was championed by MoF in consultation with RBM and was completed using a thorough consultative process. This process involved individual meetings as well as several consultative workshops with government and private sector stakeholders, where feedback was collected on the vision, measurable objectives, critical success factors and stakeholder responsibilities for the roadmap. The consultative process was critical to ensuring the roadmap and corresponding foundational elements were crowdsourced, as the success of the roadmap rests with a set of stakeholders that is much broader than simply government ministries and departments. By gaining consensus on these elements and validating stakeholder roles in these consultations, the roadmap reflects ecosystem unanimity on responsibilities, which are critical to successful implementation of the roadmap. A list of stakeholders consulted, who hail from government, the private sector and development agencies, is included in annex 3.

### **How to read this document**

This document should be read as a proposed short-term, medium-term and long-term plan for digitizing government payments in Malawi. It is designed to stimulate dialogue amongst various stakeholders on what needs to be done to hasten the process of digitizing government payments in the country. It is a living document and will be updated periodically to incorporate emerging issues in the Malawi payments system.

The roadmap sets out the vision, goal and objectives for digitization of payments. Critical success factors highlight what must be addressed and resolved if digitization of government payments in Malawi is to enter into an Expansion phase.<sup>4</sup> Milestones that have been achieved to date in the journey towards digitization provide a contextual perspective on the development of the Malawi payments system. This aspect is significant in that the roadmap builds on important steps and successes that have already been achieved and that consequently assist in identifying and informing milestones for successful digitization of Malawi payments.

The main section of this document is 'Roadmap projects,' which leverages the BTCA model of payment trajectories for shifting from cash payments to digital payments based on global experiences and lessons learned from countries that have made significant progress in digitizing their payments systems. It is also tailored to the Malawian context and reflects concerns and requests from the 100+ stakeholders involved. The use cases considered in this roadmap include mass electronic payments (one to many, like payroll or bulk government-to-person [G2P] payments), remote bill payments and merchant payments through POS or mobile money. The roadmap identifies which kinds of payments in each category are ripe for transition within government payments, and the sequence of payments that should be transitioned. The kinds of

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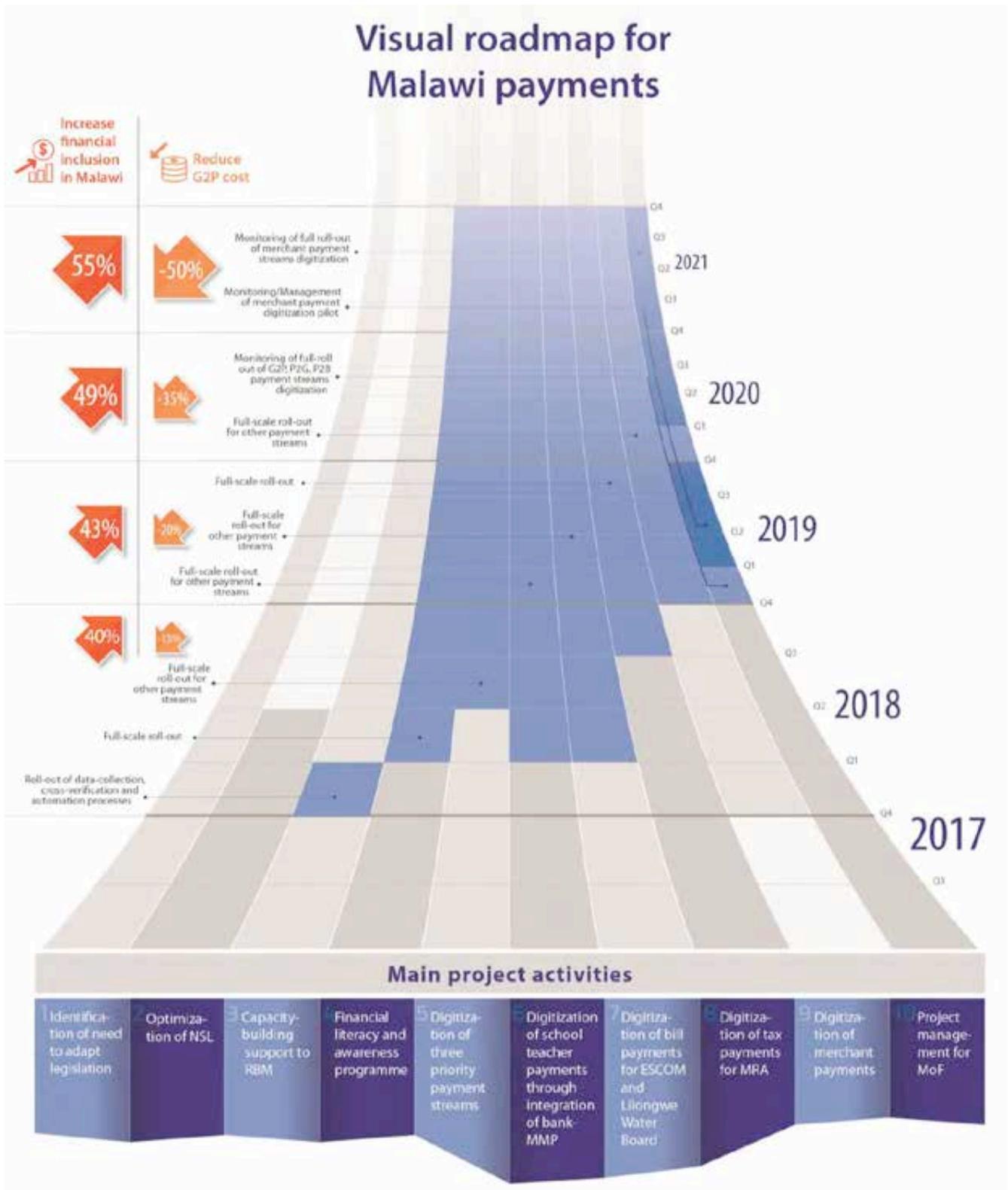
<sup>4</sup> The theory of change for DFS focuses on making shifts between phases of market development, moving from Inception to Start-up to Expansion and eventually to a mature market known as Consolidation. Mobile Money for the Poor (MM4P) uses coordinated actions that push DFS from Inception to a point where societies become 'digital' and the industry is consolidated. Moving from Start-up into a solid Expansion phase is proving challenging in most markets. Therefore, the primary focus of MM4P is to help and to hasten that shift until markets are firmly in the Expansion phase.

payments that are ripe for transition have been sourced and validated by government and private sector stakeholders.

GoM, as an entity responsible for running state affairs, makes payments to various stakeholders such as its employees (civil servants), government departments and government ministries as well as businesses supplying various goods and services. GoM also receives payments from a cross section of stakeholders such as taxpayers and payers of various levies and other government services such as immigration and vehicle licencing. These services, which are currently paid through cash or cheques, can potentially be made through electronic means.

The 'Roadmap projects' section indicates those projects that are required for digitization of government payments. The actual digitization of payment streams is sequenced and will be tested and implemented. The proposed projects will be rolled out as pilots but be designed to be brought to scale. Figure 1 illustrates the proposed projects for this roadmap.

Figure I  
Visual roadmap



Acronyms: G2P, government to person; ESCOM, Electricity Supply Commission of Malawi; MMP, mobile money provider; MoF, Ministry of Finance, Economic Planning and Development; MRA, Malawi Revenue Authority; NSL, National Switch Limited; P2B, person to business; P2G, person to government; RBM, Reserve Bank of Malawi

# 3

## VISION AND OBJECTIVES FOR DIGITIZATION

### 3.1 Vision

GoM believes in the critical role that financial inclusion can play in combatting poverty and contributing to inclusive economic growth. GoM is committed to improving access to a diverse range of financial services for the majority of the population and is keen to use digital channels as one way of achieving its financial inclusion goals, especially because a large portion of the population is in rural areas.

Additionally, GoM believes that digitization of its payments will strengthen the public financial management system, thereby improving accountability, efficiency and transparency of the payments system as well as reducing costs associated with a cash-based system. To this end, the GoM vision for digitization of payments is this:

**Every Malawian is financially resilient. The public and private sectors work together to ensure all Malawians, especially those who live in rural areas, have access to DFS that are easily accessible, affordable, reliable, transparent and secure. The Malawi policy, legal and regulatory environment works as an enabler to address payment infrastructure challenges and makes DFS a financially sustainable business to service providers.**

### 3.2 Objectives of payment digitization (2021)

Public and private sector stakeholders have agreed that, in order to achieve the vision above, there is a need for measurable objectives. These objectives, outlined below, have been identified as a way to measure the levels of success of the Malawian vision for digitization of payments.

The overall objective of the roadmap is to develop a pervasive digital payments ecosystem that will, within the next five years (2017–2021), improve financial inclusion, accountability, efficiency and transparency of the payments system as well as reduce costs associated with a cash-based system. The roadmap further aims at improving access to DFS that are accessible, affordable, reliable and secure as well as creating a conducive policy, legal and regulatory environment for DFS. Every user should be able to choose the financial service provider of his/her preference.

Specifically, the roadmap aims at achieving the following objectives.

#### 3.2.1 Increase volume of government payments through digital channels

- Volume of digitized government payments increased to 60% from 10% by 2021
- Value of digitized government payments increased to 90% from 15% by 2021
- Volume of digitized individual to government payments increased to 60% from 10% by 2021

- **Value of digitized individual to government payments increased to 80% from 15% by 2021**
- **Utilization of ATS and NSL optimized with 80% of payments made through ATS and NSL by 2021**

The BTCA diagnostic report completed in 2013 showed that monthly payment transactions for GoM and Malawi overall numbered 388,518 and 221,497,125, respectively. Out of these transactions for both GoM and for the country overall, only 0.3% was made through electronic channels. This roadmap therefore aims at increasing volume and value of digitized government payments to 60% and 90%, respectively, by 2021. Additionally, the roadmap aims at increasing volume and value of monthly person-to-government (P2G) transactions made electronically to 60% and 80%, respectively, by 2021. The MoF Accountant General, working with RBM and other stakeholders, is planning to leverage ATS and NSL by increasing usage of electronic fund transfers (EFTs). As part of these plans, cheque payments will be significantly minimized.

### 3.2.2 Reduce cost of transactions

- **Cost of transaction for government payments reduced by 50% by 2021**

One key potential benefit envisaged for digitization of payments is cost savings. It is evident from countries that have taken significant steps in this area that a digitized payments system is far more efficient than a cash-based system. By digitizing the payments system, GoM expects to achieve efficiencies that will result in significant cost savings. Such savings will come about through lower costs of printing currency and cheques, more efficient mechanisms for delivering social support and a tighter public financial management system that will address pilferage of public funds. Specifically, the roadmap aims at reducing the cost of transactions for G2P, government-to-business (G2B) and P2G by 50% by 2021. This objective references the total cost of the transaction, both to the payer and the payee, in any of the above transaction types. Charges by commercial banks and NSL comprise most transaction costs now.

**GoM is paying all civil servants' salaries electronically through MITASS straight to their bank accounts. This approach has minimized time and costs associated with manual processing, leading to gains in time and cost efficiencies. Costs will continue to go down as GoM continues to digitize other payment streams.**

### 3.2.3 Increase active users of digital financial services

- **Financial literacy and awareness improved with 50% of the population having meaningful awareness of DFS by 2021.** 'Meaningful awareness' refers to awareness to the extent that one is able to understand and use some or all financial services. Currently, there is no established baseline for how many Malawians are financially literate.
- **Active users of DFS increased to 25% of the adult population by 2021.**

A good way to measure the successful implementation of this roadmap is to track the proportion of the Malawian adult population that actively uses DFS and has meaningful awareness of DFS. Meaningful awareness is defined as understanding what DFS are, how one can sign up for them and what one can do with them. As of December 2015, the proportion of the adult population actively using DFS was 8%.<sup>5</sup>

Improving the digital payments ecosystem includes the introduction of a national ID. Though improvement of the payments ecosystem cannot be quantified in specific terms, an increase in the number of customers who are aware of DFS and who are active users is amongst other improvements likely to result.

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<sup>5</sup> UNCDF-MM4P, 'Malawi Annual Monitor' (Brussels, December 2015).

It is critical to acknowledge that the World Bank-funded FSTAP has a component addressing this issue in their strategy and implementation plan.

### 3.2.4 Improve access to financial services

- **Formal financial access increased to 55% from 34% by 2021**
- **Formal rural access increased to 45% from 28% by 2021**

This roadmap will contribute to other financial inclusion initiatives to improve access to financial services in Malawi. Measuring the levels of financial access will serve as one means to assess whether the vision of every Malawian becoming financially resilient is being achieved. Financial access is defined as the percentage of the population that has access to both bank and non-bank financial services. Despite improvements in access to financial services (improving from 26% in 2008<sup>6</sup> to 34% in 2014<sup>7</sup>), a large proportion of the adult population is excluded from the formal financial system, especially in rural areas. To this end, the roadmap aims at increasing financial access from 34% to 55% by 2021 as well as improving formal rural access from 28% to 45% by 2021. These objectives use FinScope definitions of financial access. The objectives will also provide a focus on payments and incentives in rural areas for government and private sector stakeholders.

## Conclusion

The objectives are further disaggregated for year-on-year analysis to facilitate annual progress monitoring of the digitization process (see table 1).

Table 1  
Annual metrics for objectives

| Objective  | 2017    | 2018    | 2019    | 2020    | 2021    |
|--|---------|---------|---------|---------|---------|
| Volume of digitized government payments increased to 60% from 10% by 2021 and value increased to 90% from 15% by 2021              | 10%/15% | 15%/20% | 20%/35% | 40%/60% | 60%/90% |
| Individual to government payment digitization volume increased to 60% from 10% by 2021 and value increased to 80% from 15% by 2021 | 10%/15% | 15%/20% | 20%/30% | 45%/50% | 60%/80% |
| Utilization of ATS and NSL optimized with 80% of payments made through ATS and NSL by 2021   | 10%     | 20%     | 40%     | 60%     | 80%     |
| Cost of transaction for government payments reduced by 50% by 2021   | 10%     | 15%     | 20%     | 35%     | 50%     |
| Financial literacy and awareness improved with 50% of the population having meaningful awareness of DFS by 2021                    | 13%     | 21%     | 29%     | 37%     | 50%     |
| Active users of DFS increased to 25% of the adult population by 2021   | 8%      | 15%     | 18%     | 21%     | 25%     |
| Formal financial access increased to 55% from 34% by 2021  | 38%     | 40%     | 43%     | 49%     | 55%     |
| Formal rural access increased to 45% from 28% by 2021  | 33%     | 35%     | 38%     | 43%     | 45%     |

Acronyms: ATS, automated transfer system; DFS, digital financial services; NSL, National Switch Limited

<sup>6</sup> FinMark Trust, 'FinScope Malawi 2008' (Johannesburg, 2008).

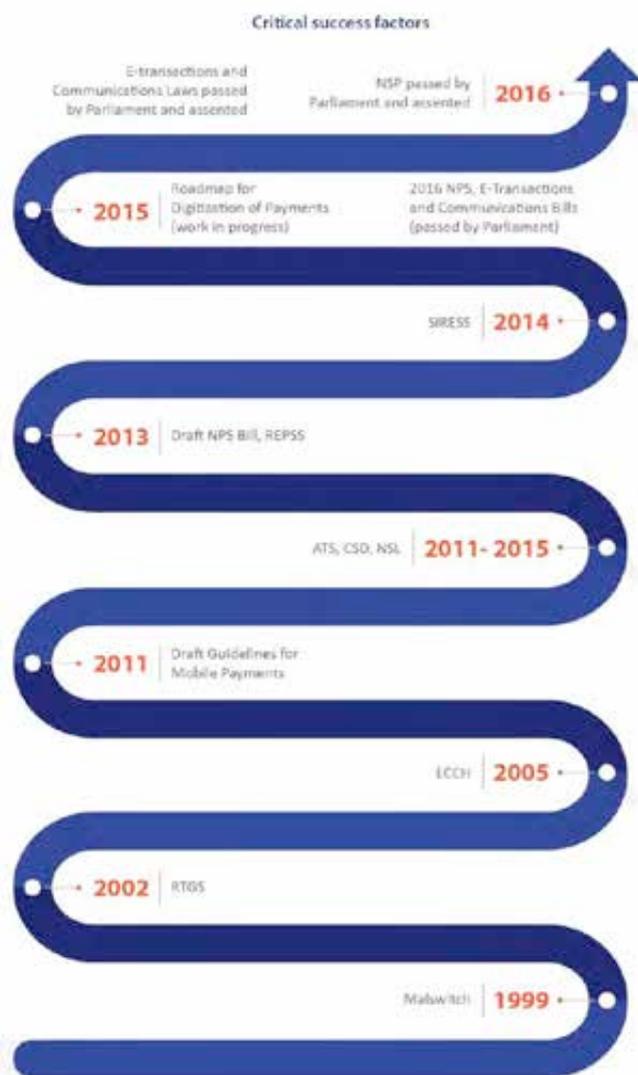
<sup>7</sup> FinMark Trust, 'FinScope Consumer Survey Malawi 2014' (Johannesburg, 2014).

# 4

## PAYMENT INFRASTRUCTURE IN MALAWI AND THE JOURNEY TRAVELLED SO FAR

This section explains the payment infrastructure in Malawi and how it has evolved in recent years. Understanding infrastructural development gives a picture of which payments are feasible in the Malawian market and the challenges involved. Figure II shows the infrastructure and policy milestones made in the area of payments in the past 15 years.

Figure II  
Milestones in payment digitization



*Acronyms:* ATS, automated transfer system; CSD, central securities depository; ECCH, electronic cheque clearing house; Malswitch, Malawi Switch Centre; NPS, National Payments System; NSL, National Switch Limited; REPSS, Regional Payment and Settlement System; RTGS, real-time gross settlement; SIRESS, SADC Integrated Regional Electronic Settlement System

## 4.1 Payment infrastructure

Payments in Malawi are championed by RBM and guided by the NPS Vision and Strategy Framework. The 2020 NPS vision is to attain a safe, efficient and internationally recognized NPS that effectively contributes to the country's financial stability. The vision for this roadmap is in synch with the NPS Vision and Strategy Framework in that it emphasizes providing Malawians with payments that are secure and accessible. The vision for this roadmap points to a policy, legal and regulatory environment that works as an enabler to address payment infrastructure challenges and to make DFS a financially sustainable business to service providers.

A number of developments have taken place in Malawi over the past 15 years that had the aim of ensuring safety and efficiency of payment, clearing and settlement systems in the country.

### 4.1.1 Malawi Switch Centre

Malawi Switch Centre (Malswitch) was established as an RBM project in 1999. Malswitch provided switching services for ATMs and POS to seven banks in Malawi. Malswitch also hosted MITASS, commissioned in 2002, and the electronic cheque clearing house (ECCH), commissioned in 2005. However, Malswitch experienced challenges that led to banks that were on Malswitch to establish their own switches, overturning gains made towards interoperability.

It is important to draw lessons from the challenges that Malswitch experienced. Some of the lessons learned from Malswitch are as follows:

- **Ownership** – The fact that Malswitch was a private company and that banks did not have a stake in it meant that banks were obliged not to join it. This situation has been corrected in that the current switch, NSL, is owned by the banks themselves.
- **Scope of business** – While Malswitch was created to offer switching services, it found itself in competition with banks. Malswitch was making payments to clients directly, with clients using its smartcard without involvement of service providers, an activity that began to create animosity/resistance from banks it was serving. NSL should ensure that it does not find itself in competition with the very banks it is serving.
- **Proprietary technology** – Malswitch was supported by a foreign company. The technology was proprietary, which made it very inflexible to integrating innovative services by other players.
- **Service support** – Proprietary technology affected the efficiency of services for Malswitch as most services were referred abroad, making banks on the switch inefficient.

In 2011, RBM in collaboration with National Payments Council, Bankers Association of Malawi and the World Bank commenced the World Bank-funded FSTAP that aimed at, amongst other things, strengthening the NPS by implementing the ATS, CSD and NSL. MoF and RBM acknowledge the tremendous support FSTAP has provided in several areas of the roadmap, including the above as well as enhancing financial literacy and working with the private sector on improving service delivery. It is important to note that the World Bank is contemplating an extension of FSTAP and is considering addressing many of the areas highlighted in the roadmap that require support. FSTAP is a critical entity to engage as this roadmap moves forward.

### 4.1.2 Automated transfer system

ATS, which went live on 1 December 2014, is an integrated system comprising the real-time gross settlement (RTGS) system and the automated clearing house (ACH). ATS was implemented to reduce the existing interface challenges between a number of systems and RTGS. Apart from processing high-value transactions, the ACH module of ATS processes low-value transactions such as cheques and other EFT transactions. This functionality enables banks to process their EFT transactions without necessarily having to invest in additional systems.

Since ATS comprises both RTGS and ACH modules, it clears and settles all interbank electronic payments irrespective of value or level of urgency.

#### **4.1.3 Real-time gross settlement**

This module is used for real-time settlement of large-value and time-critical interbank transactions. It replaced the old RTGS.

#### **4.1.4 Automated clearing house**

Besides supporting automated clearing and truncation of cheques, this module provides netting facilities for a range of other low-value (retail) EFTs such as direct debits and credits. It is also capable of processing bulk payments such as salaries. In this regard, the ACH module of ATS has more capabilities than the previous ECCH solution. The RTGS and ACH modules of ATS run on the same platform.

#### **4.1.5 Central securities depository**

CSD is a new component of the NPS infrastructure. It is an integrated primary trading (auction) module that is linked with the RTGS component of ATS, which facilitates the electronic settlement of primary issues of government securities, RBM open-market operations and interbank money-market operations. The integration of CSD with ATS therefore has allowed for the attainment of straight through processing and delivery versus payment. It is expected that the attainment of straight through processing and delivery versus payment, coupled with the increased capabilities of ACH, will reduce transaction processing costs incurred by banks. CSD went live alongside ATS on 1 December 2014.

#### **4.1.6 National Switch Limited**

NSL went live on 1 February 2015. Under NSL, all ATMs and POS devices in Malawi are linked so that users can carry out their transactions at any ATM or POS of their choice.

The process is in progress to include mobile money operators such as Telekom Networks Malawi (TNM) Mpamba and Airtel Money on the NSL platform. NSL will accommodate a processing hub for MFIs. The vision for NSL is for it to facilitate full interoperability between banks, MFIs, and mobile money and other financial service providers. The implementation of NSL is expected to drive transaction fees down and increase service points across the country, thereby easing access to payment services by rural people.

While RBM played a critical role in implementing NSL, ownership of NSL rests with individual banks under the Bankers Association of Malawi.

#### **4.1.7 Visa National Net Settlement System**

Currently, there are six banks in Malawi that are members of Visa: First Merchant Bank, Ecobank, National Bank of Malawi, NBS Bank, Nedbank and Standard Bank. Settlement of interbank obligations arising from local ATM transactions amongst the six banks was initially effected outside Malawi in foreign currency. This arrangement not only had a negative impact on the foreign exchange position of Malawi, but it was also normally associated with high 'interchange' fees. In this regard, accountholders of the six banks were paying higher fees each time they accessed Visa-branded ATMs belonging to another bank.

In a bid to reduce fees paid by clients, Visa International Service Association in conjunction with RBM and the six member banks embarked on the National Net Settlement System project. Under the project, all local transactions are no longer being settled outside the country and in foreign currency; instead, they are settled in Malawi kwacha through ATS thereby reducing and stabilizing the fees.

#### 4.1.8 Cross-border payments systems

RBM also implemented the Regional Payment and Settlement System (REPSS) in 2013 and the SADC Integrated Regional Electronic Settlement System (SIRESS) in 2014. REPSS and SIRESS are electronic payments systems developed by the Common Market for Eastern and Southern Africa (COMESA) and the Southern African Development Community (SADC), respectively, to settle regional transactions amongst banks within the member states on a gross basis and in real time. These systems are meant to replace paper-based instruments such as bank drafts and cheques and facilitate electronic transfers within member states.

### Conclusion

Figure III summarizes the payment infrastructure just discussed.

Figure III  
Digital financial services and infrastructure landscape



Source: Figure modified by RBM from original in the following source: Mia Thom and others, *Malawi: Demand, Supply, Policy and Regulation—Malawi Country Diagnostic Report 2015* (Making Access Possible, 2015), p. 168, figure 89.

Note: TNM and Airtel are not yet connected to NSL but all others indicated are live.

Acronyms: ACH, automated clearing house; ATM, automated teller machine; ATS, automated transfer system; CSD, central securities depository; EFT, electronic fund transfer; POS, point of sale; REPSS, Regional Payment and Settlement System; RTGS, real-time gross settlement; SIRESS, SADC Integrated Regional Electronic Settlement System; TNM, Telekom Networks Malawi

## 4.2 Major highlights of the 2013 country diagnosis

GoM became a member of BTCA in 2013 with a commitment to begin taking steps towards shifting the payments system to digital channels. In the course of the same year, a country diagnosis to determine the status of the payments system and the level of transition to electronic payments was conducted to estimate volumes and values of payments made in Malawi. The results of the diagnosis showed that, out of 221 million monthly transactions valued at MK254 billion, only 0.3% were electronic. GoM was making 388,518 transactions per month valued at MK36.9 billion, out of which only 0.3% were electronic. The diagnosis further showed that 99% of payment volume initiated by individuals and businesses was in cash and that 25% of the values across all payment streams was electronic. This diagnosis is so far the only reliable source of comprehensive baseline data on the status of the Malawi payments system.

Table 2 summarizes key findings of the diagnostic report.

Table 2  
Summarized key findings of the diagnostic report.

| Payer                | No. of payments per month | Percentage of volume electronic | Total value (MK mil.) | Total value (US\$ mil.) | Percentage of value electronic |
|----------------------|---------------------------|---------------------------------|-----------------------|-------------------------|--------------------------------|
| Government           | 388 518                   | 0.30%                           | MK 36 927             | \$110.30                | 8%                             |
| Business             | 5 871 911                 | 3.60%                           | MK 134 965            | \$403.20                | 38%                            |
| Individuals          | 215 204 166               | 0.20%                           | MK 81 451             | \$243.40                | 10%                            |
| Development partners | 32 530                    | 80.00%                          | MK 1 133              | \$3.40                  | 89%                            |
| Total per month      | 221 497 125               | 0.30%                           | MK 254 475            | \$760.30                | 25%                            |
| Total per year       | 2 657 965 506             | 0.30%                           | MK 3 053 704          | \$9 123.70              | 25%                            |

Source: Jamie M. Zimmerman and others, *Development Results Focused Research Program—Country Diagnostic: Malawi* (BTCA, March 2015).

## 4.3 Government efforts in digitizing payments

GoM has made significant strides towards digitization of government payments. It is a significant pillar of the Public Service Reforms Initiative mandate to improve public financial management. As of June 2016, salaries of all civil servants and 95% of pensioners' monthly payments were made through EFTs to their bank accounts.

Ministry of Gender, Children, Disability and Social Welfare (MoGCDSW) piloted digital payments for social cash transfers to 160,000 ultra-poor beneficiaries in the three districts of Balaka, Machinga and Mchinji. This pilot is being considered for potential scalability to other districts. MoLGRD in partnership with UNCDF and the FHI360-Mobile Money Accelerator Program to digitize payments to 40,000 chiefs. Similar efforts are being made by MoF through the Department of Economic Planning and Development through the Social Protection Division, which is working on digitizing payments to 1.2 million beneficiaries under a public works programme.

Furthermore, GoM through MoF under the Department of the Accountant General plans to stop usage of cheques for both government payments and receipts by July 2017. This decision will go a long way towards helping the country on the journey towards digitization, considering that GoM is a big maker and receiver of payments.

Additionally, GoM has embarked on a project to channel all its payment through EFTs and interface ATS with the Integrated Financial Management Information Systems (IFMIS).

## 4.4 Digital financial services available and their performance

The purpose of highlighting the DFS available is to inform stakeholders on the product breadth in Malawi and thus what is currently possible and not possible. Seeing the limited scope of digital products should also trigger brainstorming on whether other digital products can be introduced to fill in any possible gaps.

### 4.4.1 Mobile money payments

Mobile payments were introduced in Malawi in 2011. Mobile payments refer to payments made through phones. The country has two types of mobile payments, namely mobile money and bank-led mobile products, the latter referring to bank initiatives that allow customers to access their bank accounts through their phones.

There are two telecommunication companies in the country: Airtel and TNM. Their mobile money services are branded Airtel Money and TNM Mpamba, respectively. Zoono is a new entrant to the market, and it has been licensed by RBM as a mobile money provider (MMP). Zoono, which provides cash transfer services, is growing very fast and has recruited agents across Malawi. Zoono does not offer customers a wallet; rather, it uses a digital channel to enable its agents to send money to others.

With mobile money, funds are placed in an electronic wallet enabled by the phone's SIM card and unstructured supplementary service data (USSD) channels, allowing payment to take place from one wallet to another. The mobile payments in this document largely refer to mobile money. Products offered include domestic and international money transfers, airtime purchases and utility bill payments. There were approximately 750,000 active mobile money users as of 31 December 2015.<sup>8</sup>

### 4.4.2 Bank-led mobile payments

These payments are offered by banks. They are basically an extension of a bank account since a bank account is linked to a phone, allowing the customer to check balances, transfer funds from one account to another, buy airtime and pay utility bills. These services are offered by banks to their account holders. Examples of bank-led mobile money services are Easy Bank by NBS Bank, Mo626 by National Bank of Malawi and Banki M'manja by Opportunity International Bank of Malawi. There were 463,566 linked customers of bank-led mobile payments by close of 2015.

### 4.4.3 Merchant payments

These payments are made for goods or services through either a bank card or through a mobile phone. There were 987 POS devices in merchant shops by close of 2015. Shops can offer cashback on customer purchases.

### 4.4.4 Internet payments

These payments are offered to bank customers through an internet platform. Customers can make payments, check balances and order chequebooks, amongst other value-added services. By close of 2015, 8 out of 12 commercial banks in Malawi were offering internet banking services. Internet penetration, meaning the percentage of the population that has access to the internet, was at 6.1% as of 2015.

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<sup>8</sup> UNCDF-MM4P, 'Malawi Annual Monitor' (Brussels, December 2015).

#### 4.4.5 Automated teller machines

Malawi had a total of 466 ATMs by close of 2015. The launch of NSL has made it possible for all ATMs to be interoperable, meaning that any customer of any bank can access cash from any bank ATM.

#### 4.4.6 Electronic fund transfers

These transactions are transfers of money from one account to another within one financial institution or across institutions, within the country or outside it, with no direct intervention of bank staff and with no usage of cash. GoM currently pays 100% of salaries of civil servants and 95% of monthly pensions through EFTs.

#### 4.4.7 Direct debits

Direct debits allow organizations, through an agreement, to directly transfer funds from bank accounts of individuals or organizations into their own bank accounts through ATS. The significance is that payments can be made regularly at agreed-upon intervals without cash or manual intervention.

### 4.5 Performance of digital channels

This section showcases the performance of digital channels for the past three years (see annex 4 for specific figures).

Mobile money registered just under 20 million transactions in 2013. The number of annual transactions of mobile platforms doubled by 2015. This finding shows that usage of mobile money has sharply increased in the past three years.

Mobile money subscribers tripled to 2,271,717 by December 2015 from 730,000 in December 2013. Active users as of December 2015 were 750,000, representing 34% of registered users.<sup>9</sup>

Bank-led mobile payments have continued to grow over the past three years. The number of bank-led mobile payment subscribers grew from 280,457 in 2013 to 464,906 in 2015 while annual transactions grew from 7.4 million to 15.1 million over the same period.<sup>10</sup>

ATM transactions have plateaued over the past three years at an average of 22 million transactions per year. This trend shows that ATMs represent a maturing channel for DFS in Malawi. The number of ATMs has also not grown much in the past three years: 51 new ATMs have been installed by banks since 2013, bringing the number of ATMs to 466 at close of 2015.

The number of POS devices deployed stood at 987 and yearly transaction volume at only 325,477 in 2015, which suggests a lot of effort needs to be made to encourage all stakeholders to adopt this channel as it has significant potential to reduce the need for cash in Malawi due its relatively low cost of deployment.

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<sup>9</sup> Quarterly reports sent from RBM and various service providers to UNCDF, 2013–2015 (internal documents). RBM reports can be found here: <http://www.rbm.mw/PaymentSystems/>

<sup>10</sup> Ibid.

# 5

## CRITICAL SUCCESS FACTORS

Success of digitization depends on other crucial factors being considered and properly aligned. These factors, shown in figure IV, have been co-created by a consensus-driven discussion with the public and private sectors. It was agreed that each must be addressed concurrently in order to achieve the vision and objectives of this roadmap.

Figure IV  
Critical success factors



### 5.1 Political commitment and an enabling policy/regulatory environment

#### 5.1.1 Relevant current and pending policies and regulations

In every country, policy and regulation play a foundational role in encouraging innovation to expand access to financial services. Regulation can give either the 'red light' or 'green light' to positive financial sector engagement and innovation. It is critical that policy and regulation be designed in such a manner that they enhance consumer protection and encourage competition and innovation.

The National Payments Systems Bill has been passed by Parliament and assented by the President and currently awaiting to be gazetted. Once gazetted, it is expected to, amongst other things, provide clarity and transparency to oversight arrangements not only for electronic payments but more broadly for the country's payments system and providers, bringing Malawi in line with international best practice in the regulation of payment infrastructure.

In addition, RBM will be reissuing E-Money Regulations in order to align it with the new National Payment Systems Act and other regulations. A previous version of E-Money Regulations had been submitted to MoF and Ministry of Justice and Constitutional Affairs for vetting and approval. The E-Money Regulations will govern all digital payment operations, including requirements for entities involved in the issuing and storing of funds and operating the payments systems for transferring e-money. The Regulations are expected to replace the Guidelines for Mobile Payment Systems that RBM issued in 2011.

The Communications Bill and the E-Transactions Bill have now been passed by Parliament. Both bills are awaiting presidential assent before they can become law. The Communications Bill has a provision for a communication development fund to support penetration of mobile networks into rural areas. These bills, once assented and gazetted, will play a vital role in regulating payments in Malawi and in protecting the interests of customers. Hence, it is very important to expedite the process of approval and establish regulations for payments systems in Malawi.

### **5.1.2 Taxation**

Taxation is a barrier voiced by the private sector to the growth of digital payments in Malawi. It is important to consider tax rebates for service providers that help spread digitization, especially in rural and difficult terrains. These incentives should be significant and transparent in order to maximize their effects. This action would also incentivize service providers to innovate with products and services to maximize their outreach.

POS devices and other transactional hardware in Malawi cost two or three times what they do in neighbouring countries, largely due to the tax on transactional devices. This situation poses a challenge for providers in acquiring the devices and ultimately for customers in terms of increased transaction costs, which may in turn limit uptake. Looking at the pivotal role that technology plays in digitization, there is great need to review the existing taxation policy on transactional devices. GoM would do well to consider allowing a waiver or a reduction of import duty on low cost data enabled mobile phones, as it would enhance outreach quickly. If GoM considers this approach, operators (banks and mobile network operators [MNOs]) would likewise do well to make a commitment to ensure benefits of tax waivers trickle down to consumers and to increase the number of access points, especially in underserved areas; otherwise, the private sector might enjoy tax waivers without passing on the benefits to consumers in the form of reduced transaction costs and increased access points.

### **5.1.3 Political commitment**

Every stakeholder consulted resoundingly named political commitment and support as a critical success factor to reaching the vision of this roadmap. Without political support, policies and initiatives can be stuck in bureaucratic red tape and be held back by the inefficiencies that can occur in any office. Below are some of the policies and regulations awaiting approval from other stakeholders.

The National Payments Systems Bill has been passed by Parliament and assented by the President. Once gazetted, it is expected to, amongst others things, provide clarity and transparency to oversight arrangements not only for electronic payments but more broadly for the country's payments system and providers, bringing Malawi in line with international best practice in the regulation of payment infrastructure.

The E-Money Regulations were previously submitted by RBM to MoF and Ministry of Justice and Constitutional Affairs for vetting and gazetting. RBM has withdrawn the E-Money regulations in order to align them with the National Payments Systems Law that has recently received presidential assent.

The Communications Bill and E-Transactions Bill (focused on cyber security) being championed by MACRA are awaiting presidential assent and gazetting. The advancement of DFS includes advancement of services that are web-based, especially mass electronic payments (bulk payments), and requires secure regulations to ensure the safety of transactions. The Communications Bill has a provision for a communication development fund to support penetration of mobile networks into rural areas.

There is effort being made to harmonize regulation with regards to DFS. One has been to form teams that should oversee harmonization of DFS regulation. For example, the Financial Services Laws Implementation Committee has begun to look into harmonization issues.



## 5.2 Improved financial infrastructure

### 5.2.1 Optimal utilization of the payment infrastructure

Malawi has invested in a robust payment infrastructure comprising ATS and CSD (also known as MITASS) as well as NSL in the past two years. Optimum utilization of such infrastructure is critical to the digitization process.

### 5.2.2 Automated transfer system

ATS constitutes a major step in digitization of payments in Malawi. It is the main system for processing both high- and low-value interbank payments in Malawi. As ATS combines features of RTGS and ACH into a single platform, it has reduced costs of running two separate systems and interface requirements for RTGS and ACH. ATS therefore sets the stage for expanded use of other electronic payment streams like credit transfers and direct debits. Credit transfers and direct debits will significantly reduce the need for individuals to make cash payments.

ATS also enables files of truncated cheques, together with their scanned images, to be exchanged amongst commercial banks in a timely manner, creating efficiencies in the payments system. The open architecture and standards have enabled banks in Malawi to integrate their in-house systems with ATS to attain straight through processing, which has minimized human intervention and delays in processing interbank transactions. One would expect that cost savings for banks from straight through processing would benefit the digitization process when banks establish rural digital networks.

### 5.2.3 National Switch Limited

NSL has been operational since February 2015. NSL plays a critical role in reducing transaction costs and enabling interoperability between different financial institutions. Interoperability refers to the ability of a system or a product to work with other systems or products without special effort on the part of the customer. Interoperability can occur at different levels:

#### **MNO-bank interoperability**

Efforts have been made by some MNOs, particularly Airtel, to integrate bank accounts with mobile money e-wallets. These efforts have allowed only those banks that are integrated with the MNOs to be able to transfer money between the bank and the mobile wallet.

### **MNO-MNO interoperability**

TNM and Airtel clients can send each other money through a token. The down side is that the client is expected to withdraw the entire value of the token in cash as a one-off payment, even if the client preferred to store a portion in electronic value.

### **NSL interoperability**

NSL has the capability to provide interoperability between banks, MNOs and other service providers, which eliminates the hassle for individual players to create individual interfaces with each other.

Currently, NSL is enabling interoperability for all ATM transactions between ten banks as well as for POS transactions. MMPs are in the process of connecting to NSL. Once MMPs are connected to NSL, interoperability between banks and MMPs is theoretically possible. To utilize NSL to its optimal level, it is very important that NSL connect to a range of institutions in different phases, including utility service providers, microfinance hub, MRA, deposit-taking MFIs, insurance companies, third-party e-money providers, other payment providers in the country and also other switches in the region, in order to enable interoperability and smooth digital transactions. Different payment service providers should make the connection to NSL, realizing the importance of and the value proposition offered by NSL, especially in terms of service efficiency, reduced transaction costs and enhanced security. These benefits will in turn enable providers to reduce transaction costs to their customers and increase the size of the overall market. Integrating with a wide range of institutions and enabling different payments will ensure sustainability of NSL and will bring about greater outreach and inclusion.

NSL required a huge capital investment to set up. Maintenance costs of such equipment and system upgrades as time passes will also require substantial amounts of money. Sustaining NSL requires huge volumes of transactions to pass through the switch. GoM is a huge player that would provide such opportunities through G2P payments; the possibility of increasing transactions is there. It is, however, important to note that current utilization of NSL is at its earliest stage, only clocking 110,000 transactions (as of December 2015) and an average 31,000 POS transactions at merchants per month. Based on this early data, sustainability through high volumes of transactions may be a challenge without intentional targeting of payments from GoM.

NSL should also explore the possible income streams available through its diverse product portfolio, such as embossing and personalizing cards without competing with the banks and providing internal switching services to banks that require such services. One way of increasing volumes of transactions is to ensure that queries arising from failed transactions from interoperable ATMs are resolved with speed. Quick resolution of challenges will increase confidence of consumers in NSL and encourage more users to utilize its services, thereby making NSL attain high volumes.

MNOs are yet to connect to NSL. While their coming on board with NSL will be a milestone, it is important to understand their needs so that they do not only just connect but also actually use the switch. MNOs will rely on NSL if they draw value and profit from interoperability for themselves and for their customers. Figure V summarizes integrations that are possible with NSL.

Figure V  
**National Switch Limited and possible integrations**



## 5.2.4 Other infrastructure

To shift payments from cash to digital requires basic physical infrastructure such as roads and electricity to charge mobile devices and POS devices.

### 5.2.4.1 Power

Power is one of the major challenges to the penetration of digital services into rural areas. The generation capacity of hydro-electrical power by the only provider, Electricity Supply Commission of Malawi (ESCOM), is 285 megawatts, which is far below the country’s demand. Only 9.3% of Malawians have access to electricity.<sup>11</sup> This finding means the 2.2 million people registered for mobile money may not all have power to charge their phones.<sup>12</sup> Furthermore, service providers such as banks are unable to construct branches in very remote areas and MNOs are unable to install towers in certain rural places due to the short supply of power as well as poor road conditions.

There are two major projects being undertaken to address power issues by GoM, with support from the US-funded Millennium Challenge Account and the Chinese Government. The Millennium Challenge Account is a US\$350.7 million project to improve power supply in the next five years. The project will rehabilitate, upgrade and modernize ESCOM generation, transmission and distribution assets in the most urgent need of repair, in order to preserve existing generation, improve the capability of the transmission system, and increase the efficiency and sustainability of hydropower generation. Meanwhile, with a loan from China, GoM is constructing a coal-powered electrical generation plant in the southern part of the country that will double the nation’s power

<sup>11</sup> FinMark Trust, ‘FinScope Consumer Survey Malawi 2014’ (Johannesburg, 2014).

<sup>12</sup> Quarterly reports sent from RBM and various service providers to UNCDF, 2015 (internal documents). RBM reports can be found here: <http://www.rbm.mw/PaymentSystems/>

output in the next three years. Availability of power will accelerate penetration of DFS into rural areas with more uptime for telecommunication towers.

As part of these projects, ESCOM will be split into two parastatal firms, one responsible for generation and the other responsible for transmission and distribution of electricity in order to optimize efficiency in both firms.

**Network connectivity** is also likely to improve. To initiate and complete digital transactions successfully, it is very important to have reliable mobile network connectivity across all geographical areas. In the first phase of digitization, special focus to develop infrastructure should be given to rural and semi-urban areas where social protection payments are in the process of being digitized.

A communications development fund that will be managed by MACRA, as planned in the Communications Bill now awaiting presidential assent and gazetting, will also go a long way in putting necessary services in place (e.g., better customer service infrastructure, account portability and service standards).

RBM is currently chairing a Payment Network Services Working Group, a group of stakeholders comprising ESCOM, banks and service providers that was formed to tackle DFS challenges and connectivity issues in particular.

Good network connectivity requires that adequate towers be installed in key locations. GoM, led by MACRA, is considering introducing an infrastructure sharing arrangement where towers for telecommunication companies can be shared. In contrast, the current arrangement is that each telecommunication company has to erect its own towers, which is a cost barrier to tower installation.

In assessing strength of network connectivity as a measure of DFS performance, care should be taken. DFS transactions require network connectivity and sometimes voice calls may work on a network while DFS transactions fail.

MACRA is currently unable to monitor network performance of MNOs. MACRA has in place the Consolidated ICT Regulatory Management System, which it acquired to effectively monitor network performance and to ensure consumers are protected from poor delivery of services by MNOs. Roll-out of the system is being challenged in court on grounds that such monitoring could violate rights to privacy of network users.

Despite current challenges in providing digital services to rural areas, demand for mobile money services is on the increase, as shown by the 750,000 active users<sup>13</sup> out of 2,200,000 subscribers at the end 2015.<sup>14</sup> Service providers need to leverage increased demand for services in rural areas to build out network coverage into those areas. GoM, the private sector or donors could consider de-risking investments, such as giving a loan guarantee for a cell-phone tower to be built in a rural area—if sufficient profits are not made, the losses would be addressed by the loan guarantee or a similar instrument. Comparable measures should be taken to address mobile phone ownership, especially amongst women and those in rural areas.

#### 5.2.4.2 National identification

The role of a national ID will be critical in ensuring quick and transparent payments. GoM is in the process of rolling out a national ID system to all Malawians above the age of 16, an effort championed by the National Registration Bureau that is working with the Department of E-Government on technology supply. A total of 5,000 IDs were issue in 2016 as proof of concept

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<sup>13</sup> UNCDF-MM4P, 'Malawi Annual Monitor' (Brussels, December 2015).

<sup>14</sup> Quarterly reports sent from RBM and various service providers to UNCDF, 2015 (internal documents). RBM reports can be found here: <http://www.rbm.mw/PaymentSystems/>

and 95,000 IDs will be issued during pilot phase of the project. It is expected that 500,000 IDs will be issued on a yearly basis thereafter and that 9,000,000 IDs will be issued by May 2019. In the meantime, where people do not have passports or driving licences as IDs, the country continues to use voter registrations cards and letters from the chief, which may not be relied upon under know-your-customer (KYC) requirements as they cannot uniquely identify users of DFS. The national ID will be a big catalyst for roll-out and adoption of various digital finance products.

The National Registration Bureau is in discussions with the Bankers Association of Malawi and other financial service providers to explore if the national ID, which has a chip with the same capabilities as a bank card, can be used for accessing financial services.

Government and private sector stakeholders could also consider creating a joint KYC database using existing KYC information as well as SIM card registration information. Such a database has been created in Pakistan with impressive results in regards to uptake of DFS. It can significantly reduce costs to providers in the provision of services. SIM card registration will have legal backing once the Communications Bill is assented and gazetted.

#### 5.2.4.3 One-stop citizen service delivery centres

Commissioners on the Reforms Commission recommended implementation of one-stop service delivery centres based on lessons learned from a benchmarking tour to Kenya.<sup>15</sup> The importance of one-stop centres is that they would enable citizens to access various public services.

The service centres would be implemented through post offices. Amongst the services offered would be passport and driving licence issuance, business registration and tax payment. The centres were proposed to start operating before the close of 2015. One-stop centres offer a great opportunity for GoM to digitize its services, working with various service providers.



## 5.3 Improved digital payments ecosystem

Improving the ecosystem is a critical success factor for digitization of payments because players in the ecosystem rely on one another to offer digital services. Players include GoM, RBM, banks, MMPs, agents, merchants, utility service providers, NSL and others. At the centre of it all, however, there is the customer (see figure VI). Therefore, the ecosystem must work in harmony so that players complement each other in order to advance the digitization of payments and to achieve the best service to the customer. The ecosystem can best be understood by examining the role of each player in the payment value chain. In Malawi, the DFS value chain has vacuums that are filled by cash. The ideal situation is one where makers and receivers of payments—be they individuals or organizations—receive value electronically and spend that value electronically and have no need for cashing out in order to pay for a service. In such a situation, the service is offered efficiently and the law covers all parties to the transaction. The reality, though, is that many holding electronic value in a bank account or mobile money account have to convert it to cash in order to pay for a service.

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<sup>15</sup> Malawi, Public Sector Reforms Management Unit in the Office of the Vice President, *Public Service Reforms Commission—Making Malawi Work: Final Report* (Lilongwe, February 2015).

Figure VI  
Ecosystem stakeholders



### 5.3.1 Increased cooperation and partnerships between banks, mobile money providers and utility service providers

It is critical that banks and MMPs, as the major providers of DFS, work hand in hand with other service providers to provide services to Malawians. Efforts by individual banks and MMPs to integrate their systems to allow for push-and-pull services<sup>16</sup> between bank accounts and mobile wallets are quite commendable. In fact, the most important and efficient strategy for accelerating digitization is to integrate banks and MMPs through NSL. This integration can begin with simple memorandums of understanding or with more active partnerships coming out of industry association groups, like the DFS Coordinating Group and the National Payments Council.

It is important that all parties appreciate that, once clients have the liberty to freely move money between bank accounts and mobile wallets, there will be traffic of electronic funds that benefit both parties and that serve a happy customer. Results will include a) stronger value propositions for customers to address their day-to-day payment pain points, b) greater financial sustainability of DFS for financial service providers, and c) a reduction in the Malawian dependency on physical cash.

The DFS value chain will need a zenith in the form of a bank and/or an MNO and a network of agents/merchants to come together to digitize different payment streams. Malawi has parts of the required ecosystem but those parts do not currently add up to a robust ecosystem. There is great need to recruit more merchants in order to broaden outreach, which would ensure that an individual receiving payment does not have to withdraw cash and buy goods. He/She can use e-money to transact. Needed merchants include utility service companies for bill payments,

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<sup>16</sup> Push-and-pull refers to linking banking accounts and mobile wallets, whereby customers can pull or push money between the two accounts.

educational institutions for payments of school and college fees and MFIs for savings, loan disbursements and repayments. There is also a need to expand the agent network to cater to remote parts of the country and a need to improve the quality of existing agents so that all Malawians can access formal financial services and use digital channels for a range of payments. Hence, partnerships between MMPs and banks will be critical to supporting liquidity management of agent networks and to digitizing payments. Simultaneously, an active merchant network plays an important role in reducing cash transactions and in promoting digital payments. Banks and MMPs should actively promote merchants and encourage their customers to use merchant payment services to reduce cash transactions. This effort may require revisiting the merchant value proposition, the commissions paid to merchants and the customer value proposition as well as the cost of digital payments for customers.

There must be increased innovation in service delivery between banks and MNOs to allow for efficiency of service and to introduce products that benefit clients and service providers. The Mobile Money Coordinating Group, now called DFS Coordinating Group, must continue with inclusive coordination to explore synergies that can advance DFS in Malawi.

### **5.3.2 Integrated payments systems between financial institutions, mobile network operators, merchants and utility service providers**

The next step, after memorandums of understanding, is the actual technical integration between systems. Beyond NSL, many financial institutions have already created bilateral arrangements that allow their management information systems (MIS) to speak to each other and transmit payments between each other. For a DFS ecosystem to be truly successful, MIS need to speak to one another and individuals should be able to make a payment between two institutions with minimal fees. Many systems for various players in the ecosystem are standalones. These systems need to be integrated for payments system efficiency. Establishment of ATS and NSL provides a strong backbone for a well-integrated ecosystem offering online and straight through processing.

Payments for utility service providers, as a case in point, can be made via mobile money to ESCOM and water boards such as the one in Lilongwe. Currently, funds received from customers must be manually uploaded into the service providers' systems. Sometimes a delay in the upload leads to disconnection of service at client premises leading to serious inconveniences. These inconveniences can be eliminated by building interfaces between ESCOM or the water board's financial management system and DFS providers.

GoM generates EFTs from its IFMIS; however, the interface between IFMIS and ATS has not yet been built. As such, EFTs are having to be manually uploaded into ATS. Many efficiencies can be gained when the two systems begin to talk to each other without human intervention.

### **5.3.3 Levelled playing field**

The Malawian environment for payments is a very competitive one, where banks, MNOs and others are leveraging their assets, at times, to disadvantage partners. Banks sometimes process their mobile payment transactions faster than their MNO partner, or MNOs may not make their USSD channel available to a potential competitor. However, if the need for an innovative, competitive and financially sustainable business environment for payments is to be addressed, both industry associations and regulations must try to create a level playing field for these actors. Currently, there are different regulations/guidelines for banks and MMPs, which means there are different incentives and statutory requirements for them. This situation results in an unequal playing field that is not conducive to greater digital financial inclusion in Malawi. Regulators such as RBM, MACRA and others should consider issuing uniform guidelines to create a level playing field for all DFS providers irrespective of type of institution, be it a bank or MMP.

It is important to note that RBM had prepared and submitted E-Money Regulations for gazetting in February 2015 but the regulations have been withdrawn and will be revised in order to be aligned

with the National Payments Systems Law. The Regulations seek to level the playing field and will replace Guidelines for Mobile Payment Systems issued in 2011.

### 5.3.4 Harmonized social protection payments systems

Social protection payments in Malawi represent an ecosystem in and of itself that involves a critical set of actors that could improve the DFS ecosystem. IFMIS, implemented by GoM, supports public financial management and has harmonized how public finances are managed across ministries and departments. However, social protection payments systems across departments are not as harmonized. Social payments are either funded by government or directly by donors. While all social protection payments funded by GoM are generated out of IFMIS, the cash payment processes that follow are different for different departments. As an example, the Mthandizi MIS has been developed for a public works programme under MoF as part of the digitization process of such payment streams. MoGCDSW also pays social cash transfers to ultra-poor households. It is possible that same beneficiaries could be benefiting from different social protection programmes due to lack of harmonized systems and databases.

There is therefore a need for social protection payments made by GoM to be harmonized. One way to tackle the issue of harmonization of government payments is to strategically consider putting all payments for social protection under one department and develop systems to support them. This approach is something GoM is actively discussing with donors. GoM is also exploring options for a national social support fund that might be implemented by a non-governmental organization (NGO). Lessons can be drawn from South Africa, where all social protection payments have been consolidated and placed under one agency, the South African Social Security Agency.



## 5.4 Improved financial literacy and awareness

### 5.4.1 Beneficiary-level financial literacy and digital financial service awareness

One of the main challenges to achieving the vision of this roadmap is the lack of widespread and meaningful awareness of financial services, especially DFS. Access to financial services is still low but has shown slight improvement over time. The proportion of the adult population with access to formal financial services improved from 26% to 34% from 2008<sup>17</sup> to 2014.<sup>18</sup> One of the reasons for relatively low access to financial services is lack of awareness about financial services.

Malawians lack a basic understanding of financial services and 51% of adult Malawians are financially excluded.<sup>19</sup> The urban population has been actively using digital channels for banking, mobile money and payments. However, to facilitate mass usage, it is critical to create awareness amongst the rural and semi-urban populations and to promote digital payments. Through different stakeholders, MoF and RBM have been actively engaged in promoting financial literacy in Malawi. Currently, RBM is finalizing a five-year National Strategy for Financial Literacy. However, there should be a concerted effort in this area amongst a broader set of stakeholders.

There is great need to improve coordination amongst institutional players engaged in financial literacy and to support those with large outreach to enhance the effectiveness of such initiatives. It is very important that financial institutions, service providers and donor agencies contribute

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<sup>17</sup> FinMark Trust, 'FinScope Malawi 2008' (Johannesburg, 2008).

<sup>18</sup> FinMark Trust, 'FinScope Consumer Survey Malawi 2014' (Johannesburg, 2014).

<sup>19</sup> Ibid.

significantly to building awareness, especially amongst rural and semi-urban segments. If different institutions are collaborating to offer payment services, it is the responsibility of all institutions (public and private) to create awareness in order to improve people's knowledge and skills regarding digital financial products, their benefits and their value propositions—it is truly a public good. Initial efforts in this direction will enable people to overcome some of the 'teething' challenges and will motivate potential customers to subscribe to and use the service effectively. An initial investment in targeted DFS awareness campaigns will trigger word-of-mouth, which enables digital finance to get to a critical mass. However, during the initial period, promotion and financial literacy messaging will ideally be targeted 'below-the-line' efforts. Institutions will have to think beyond media channels and invest more in targeted campaigns to create awareness; use different channels like local NGOs and savings groups; and reach out through a mix of pamphlets, simple FAQs, plays, road shows etc. in order to create awareness about digital channels, their benefits and their value propositions to customers. These efforts will enable people to use digital channels for payments and gradually move to other financial services and will eventually lead to greater financial inclusion.

Beyond service providers engaging in financial literacy activities, neutral players like GoM, RBM and developmental partners should also play a bigger role. Since service providers' financial literacy initiatives can be misconstrued as advertising efforts, the credibility of the intended message can be diluted. Therefore, the more neutral leadership of GoM, RBM and development partners is preferred to lead these initiatives.

Deliberate effort should be made to target stakeholders in the value chain whose understanding of DFS will accelerate adoption of DFS in rural areas. Such stakeholders are MFIs; micro, small and medium enterprises; merchants; vendors; and end-users of DFS.

#### **5.4.2 Organization-level awareness and leadership support**

Private sector stakeholders have articulated that one challenge is working with staff in government institutions who have only been trained in cash/cheque procedures. There is a need to both articulate leadership and middle management support for the shift as well as to provide comprehensive training for operations, finance, administration and procurement staff. Even when there is support from the leadership of an organization, private sector stakeholders have reported that the finance- and administration-related staff are hesitant and sometimes fear the shift and what it means for audit and accountability measures. There are manuals and toolkits available from BTCA and NetHope to help address these concerns. Malawian banks and MMPs should improve the current scope of channels and offer a wide range of financial products and services based on customer segmentation and most importantly customer needs and preferences. These institutions may need support from development partners to organize learning visits and also to receive technical assistance support to acquire necessary knowledge and skills to support the digitization of payments in the country.

#### **5.4.3 Social responsibilities of organizations**

The majority of bank branches and ATMs in Malawi are located either in urban areas or in big trading centres in semi-urban locations. Even the focus of MMPs has mainly been in urban areas and important semi-urban locations. Although MMPs are currently trying to focus on rural and other semi-urban locations, they do not yet have a quality agent network (a network where people can transact without any challenges of liquidity or connectivity) in those locations. There is significant need to incentivize DFS providers so they can focus on rural and semi-urban locations, where more than 85% of the population is living. The private sector has proposed that GoM provide incentive grants or tax breaks to 'go rural.'



## 5.5 Learn from global experiences

In order to best improve the status of digital payments in Malawi, it will be essential to learn from international experience in other locations and participate in global knowledge-sharing in this domain. This will not only ensure that optimal solutions are chosen for Malawi, but also that other countries will be able to benefit from Malawi's experience, helping to multiply the impact of donor funding and assistance.

As part of the drive to learn from global experience, Malawi joined the Better Than Cash Alliance in 2013. BTCA partners with governments, companies and international organizations that are key drivers in the transition to digital payments. Working with its members, BTCA organises services such as research, advocacy events and forums, technical assistance and international peer exchange trips. The opportunity to participate in and benefit from these activities will strengthen the chance of success of this roadmap.

Some examples of BTCA activities that may be integrated into this roadmap include:

- Shifting social cash transfers to digital through Village Development Councils, as recently experienced in Nepal (See the box 'Social cash transfers in Nepal' for more detail). Their system of distribution is very similar to that seen in Malawi.
- Exploring the possibilities of shared infrastructure for mobile payments, as seen in Modelo Perú
- Using toolkits released by BTCA to help governments shift from cash to electronic and diagnose how payments are made, as well as case studies from various countries on how they are shifting from cash to electronic.

There are many other international institutions from which lessons may also be drawn. RBM has an active membership in the Alliance for Financial Inclusion. Consultative Group to Assist the Poor (CGAP), International Finance Corporation (IFC), the World Bank and many others have also played a key role in helping Malawi keep updated on good practices and can play a critical role in ensuring that Malawi does not reinvent the wheel.

### Social cash transfers in Nepal<sup>a</sup>

The social security allowance in Nepal is delivered manually in cash to beneficiaries through District Development Council/Village Development Council (see figure for structure). The Government explored the delivery of these payments through alternate channels with the help of a bank. On a pilot basis, the bank delivered the social security allowance in three districts through its branchless banking agents.

The traditional manual payment process for the social security allowance starts with the enrolment of beneficiaries. The entire process can be broadly divided into the following sub-processes: communication to existing/prospective beneficiaries to renew/enroll, application process, deregistration of deceased and others, issuance of beneficiary passbook/identity card, fund disbursement, and reporting and reconciliation.

However, there are major challenges to the manual system such as the following: manual recordkeeping for data collection, data entry, reporting and benefit disbursement, which is cumbersome and prone to error; high workload of numerous schemes and development work at District Development Councils/Village Development Councils; misuse of social security funds due

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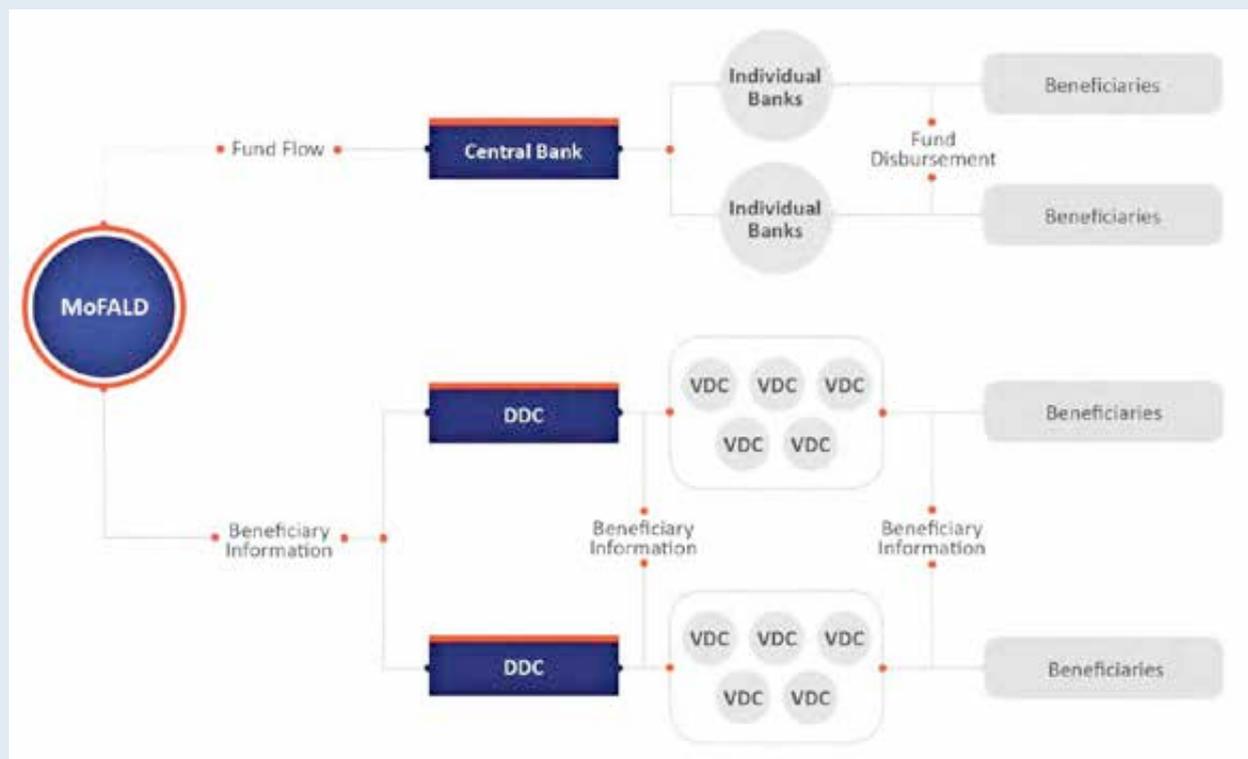
<sup>a</sup> Source: MicroSave internal document

to absence of proper control mechanisms; risk of theft/robbery; ghost beneficiaries and leakages; and delays in fund disbursement.

In comparison, the payment service provider (a commercial entity) and its agents (additional stakeholders) are involved in the alternative payment method. In this case, the process can be broadly divided into the following steps: enrolment and account opening (same as in the traditional method), with an additional step for data digitization by District Development Council officials; fund release to the banks; fund release from the bank settlement account to beneficiary account; withdrawal by beneficiary; and settlement at bank branch and reconciliation.

Stakeholders experienced several benefits from the alternative method for social security allowance payments during the pilot: control of leakages, focus by administration staff on core activities, digitized MIS, secure authentication mechanism and financial inclusion. However, the alternative method has its own challenges. The major ones are the following: high set-up cost of the branchless banking channel, low awareness of the branchless banking payments system amongst beneficiaries, restricted banking services offered, geographical/infrastructural challenges, difficulty for beneficiaries who are older or with different abilities, and unsustainable remuneration structure to the banks.

This example reveals the importance of the role payment service providers can play. With an enabling regulatory environment and incentives in place, payment service providers can help governments/businesses in building an inclusive and efficient society.



Acronyms: DDC, District Development Council; MoFALD, Ministry of Federal Affairs and Local Development; VDC, Village Development Council

# 6

## ECOSYSTEM STAKEHOLDER ROLES AND MILESTONES

This section on the ecosystem articulates the roles of various stakeholders and highlights the need to harmonize and improve collaboration. Clear roles, responsibilities, milestones and deadlines are essential to achieving the critical success factors and the roadmap projects (see table 3). They were cleared by MoF, RBM, Accountant General and Reforms Commission and received validation from representatives of all the relevant stakeholders. The outlined responsibilities will have to be addressed within agreed timeframes if digitization of payments is to fully take off.

Table 3  
Stakeholder roles and responsibilities

| Stakeholder                               | Agency/Department   | Responsibilities   | Milestones  | Deadlines                                 |
|---|---|--|---|---|
| Office of the President and Cabinet (OPC) | Public Service Reforms Division   | Provide leadership and political commitment  | Include digitization of government payments as reform area using this roadmap as an implementation plan                             | Ongoing                                   |
|   | Public Service Reforms Division   | Provide leadership and political commitment  | Ensure digitization of payments is a priority for all ministries, departments and agencies  | Ongoing                                   |
| MoF                                       | Minister  | Provide leadership and political commitment  | Approve and launch this roadmap and provide active political and financial support to the successful implementation of this roadmap | Ongoing (political and financial support) |
|   | Pension and Financial Sector Policy Division, RBM   | Ensure approval of regulations and bills supporting digital payments                                     | Revise E-Money regulations, align it with the National Payments Systems Law and get necessary approvals                             | August 2017                               |
|   | Pension and Financial Sector Policy Division, Accountant General, and MoLGRD  | Digitize government payments: pilot and roll out with involvement of banks, MMPs and other DFS providers | Pilot and roll out digital payments to chiefs   | December 2018                             |
|   | Pension and Financial Sector Policy Division, Accountant General, and Ministry of Education, Science and Technology | Digitize government payments: pilot and roll out with involvement of banks, MMPs and other DFS providers | Pilot and roll out MNO-bank integration for payments to teachers  | December 2018                             |

| Stakeholder | Agency/Department  | Responsibilities  | Milestones  | Deadlines     |
|-------------|--|---|---|---------------|
| MoF (cont.) | Pension and Financial Sector Policy Division, Accountant General, and Ministry of Transport and Public Works | Digitize government payments: pilot and roll out with involvement of banks, MMPs and other DFS providers                      | Pilot and roll out digitization of public works payments  | December 2018 |
|             | Revenue Policy Division  | Review taxes affecting penetration of DFS   | Conduct a review of taxation on transactional devices and make recommendations on possible actions to reduce taxes on DFS-related items and services  | June 2018     |
|             | Pension and Financial Sector Policy Division   | Incentivize DFS players to invest in and reach out to rural and semi-urban areas  | Formally release guidelines on incentives for DFS ecosystem to the public   | June 2019     |
|             | Pension and Financial Sector Policy Division and RBM   | Build financial literacy and awareness through local councils and other organizations   | Launch National Strategy for Financial Literacy   | June 2017     |
|             | Economic Planning Division   | Create a national database for client data and streamline enrolment process for social protection clients                     | Roll out the final database   | December 2018 |
|             | RBM and MACRA  | Ensure accountability of service providers – customer protection  | Ensure enforcement of approved laws and regulations; Revise E-Money regulations, align it with the National Payments Systems Law and get necessary approvals  | August 2017   |
|             | Pension and Financial Sector Policy Division, RBM and MACRA  | Strengthen coordination with public sector and private sector, utilizing DFS Coordinating Group and other coordination groups | Participate in and co-lead DFS Coordinating Group and strengthen follow-up of issues discussed, including publishing a white paper that provides a set of recommendations for new policies and regulations that would support the ecosystem | June 2017     |
|             | Pension and Financial Sector Policy Division and MoF Human Resources   | Build capacity of government staff involved in DFS  | Train key staff on DFS, including their regulation and supervision  | June 2018     |
|             | Accountant General and Revenue Policy Division   | Ensure full use of DFS for P2G and B2G payments   | Ensure 80% of P2G and B2G payments are collected through DFS channels   | June 2018     |
| RBM         | Microfinance and Capital Markets Supervision Department  | Co-lead the financial literacy and awareness creation campaigns   | Ensure 80% of adult population (18 years and older) is aware of DFS   | December 2021 |
|             | NPS Department   | Provide close monitoring and oversight of enabling environment for digitization of payments                                   | Conduct annual review of policies, directives and regulations, resulting in amendment to bills or regulations   | Ongoing       |
|             | NPS Department   | Review regulations and monitor use of interest from trust funds for customer education  | Review and modify E-Money Regulations   | June 2017     |

| Stakeholder   | Agency/Department  | Responsibilities  | Milestones   | Deadlines                              |
|---|--|---|--|--|
| RBM (cont.)   | NPS Department   | Reduce use of cheques   | Finalize regulation and enforcement of value cap of MK 5 million per cheque  | September 2017                         |
|   | NPS Department, Banking Supervision Department, Microfinance and Capital Markets Supervision Department, MACRA, Competition and Fair Trading Commission, and Financial Intelligence Unit | Ensure cooperation and harmonization of regulation with other stakeholders  | Conduct quarterly meetings amongst relevant regulators of DFS and streamline mandates                                  | Ongoing                                |
|   | NPS Department, Banking Supervision Department, and Microfinance and Capital Markets Supervision Department  | Coordinate with public and private sector with respect to DFS   | Participate in and co-lead a coordinating body and strengthen follow-up of issues discussed                            | June 2017                              |
|   | Microfinance and Capital Markets Supervision Department  | Improve customer service and consumer protection  | Ensure queries are resolved within a 14-day period and train key staff on customer service and consumer protection     | June 2018                              |
|   | NPS Department, Banking Supervision Department, and Microfinance and Capital Markets Supervision Department  | Provide supervision and monitoring of banks and MMPs  | Conduct regular onsite inspections (quarterly) and offsite inspections (monthly), mystery shopping and surprise visits | Ongoing                                |
| Ministry of Home Affairs and Internal Security and National Registration Bureau |  | Increase ability of Malawians to be identified  | Issue national ID to all eligible Malawians (above 16 years of age)  | April 2019                             |
| MACRA   |  | Closely coordinate with RBM and MoF   | Review current memorandum of understanding to address any new gaps in DFS regulation or policy                         | May 2017                               |
|   |  | Supervise MNOs to ensure reliable network connectivity in all geographies (meet high quality of service indicators) | Work towards 97% connectivity (up-time) achieved in all three regions and dropped calls minimized to 2%                | December 2022                          |
|   |  | Incentivize DFS players to invest in and reach out to rural and semi-urban areas                                    | Put at least one incentive in place (e.g., reduced or waived licence fee, reduced taxes)                               | December 2017                          |
| NSL   |  | Integrate with different institutions involved in enabling/receiving payments                                       | Ensure DFS providers and utility service providers are connected to NSL  | June 2017 (MMPs); June 2019 (all else) |
|   |  | Increase use of NSL   | Migrate all ATMs, POS, banks, DFS providers and others to using NSL  | June 2019                              |
|   |  | Reduce cost of transactions to both user of service and to end-customer/beneficiary                                 | Reduce transaction costs of government payments by 50% from costs incurred in 2016                                     | June 2019                              |

| Stakeholder                   | Agency/Department | Responsibilities  | Milestones  | Deadlines   |
|-------------------------------|-------------------|---|---|---|
| NSL (cont.)                   |                   | Standardize protocols and create/maintain strong security procedures  | Review current protocols to see if they are addressing both service provider and customer issues  | Ongoing and on a yearly basis   |
|                               |                   | Increase cross-border payments  | Work towards increased use of switch for cross-border payments  | June 2019   |
| Bankers Association of Malawi |                   | Be actively involved in digitization of payments and enter into partnerships that increase interoperability of payments in Malawi | Encourage introduction of customer-centric DFS products, competition for contracts to digitize government payments, and partnerships between banks and other MMPs     | Ongoing   |
|                               |                   | Promote and manage quality agent network and merchant network, including liquidity management, in rural areas                     | Create a network of outlets/agents that reach 80% of rural Malawi and ensure that each bank has considered whether it should be a super-agent for MMPs                | July 2021   |
|                               |                   | Promote financial awareness on digital payments and channels within target population   | Have banks conduct yearly awareness programmes and promotional activities, with their own targets, and ensure there is a focus on the value proposition for end-users | Ongoing and on a yearly basis   |
|                               |                   | Enable push-and-pull services between bank accounts and mobile wallets  | Ensure all banks have considered the business case of enabling push-and-pull between existing mobile wallets  | December 2017   |
|                               |                   | Increase use of NSL   | Migrate all ATMs, POS, banks, DFS providers and others to using NSL   | June 2019   |
|                               |                   | Reduce cost of transactions to both user of service and to end-customer/beneficiary   | Reduce transaction costs of government payments by 50% from costs incurred in 2016  | June 2019   |
|                               |                   | Increase cross-border payments  | Work towards increased use of switch for cross-border payments  | June 2019   |
|                               | MMPs              |   | Enhance quality of network coverage for agents and merchants in rural and semi-urban areas with reliable liquidity management   | Create a network of outlets/agents that reach 80% of rural Malawi and have sufficient liquidity (both cash and e-float) for 90% of transactions |
|                               |                   | Offer products and services based on target segment needs and preferences   | Develop customer-centric products   | Ongoing   |

| Stakeholder                                   | Agency/Department | Responsibilities   | Milestones   | Deadlines                     |
|---|-------------------|--|--|-------------------------------|
| MMPs (cont.)                                  |                   | Improve customer experience (to use service) and include financial education in marketing and promotion strategies using the interest from trust funds | Conduct yearly awareness programmes and promotional activities, with their own targets, and ensure there is a focus on the value proposition for end-users | Ongoing and on a yearly basis |
|   |                   | Invest in necessary infrastructure to improve connectivity   | Consider the business case of investing/co-investing in infrastructure (including towers) to improve connectivity in relevant geographies                  | September 2017                |
|   |                   | Enable push-and-pull services between MMPs and banks, either through NSL or bilaterally  | Consider the business case of enabling push-and-pull with existing banks   | December 2017                 |
| MFIs  |                   | Be active involved in digitization of payments and connect to microfinance hub or NSL  | Have microfinance hub in place   | December 2019                 |
|   |                   | Create awareness of digital payments and channels  | Partner with GoM and DFS providers to support financial literacy and awareness building  | December 2019                 |
|   |                   | Offer products and services based on target segment needs and preferences  | Launch at least two microfinance products that use human-centred design  | June 2019                     |
|   |                   | Create or collaborate with other parties working on agent networks   | Consider the business case for using a digital channel or entering into a partnership with a DFS provider  | December 2019                 |
| Retailers (agents and merchants)              |                   | Create awareness within and educate target clientele   | Partner with GoM and DFS providers to support financial literacy and awareness building  | December 2019                 |
|   |                   | Have sufficient liquidity management based on target clientele transactions  | Ensure 90% of merchants that are accepting digital payments have sufficient liquidity (both cash and e-float)  | December 2019                 |
|   |                   | Accept and actively promote digital payments   | Ensure 60% of merchants and major outlets begin to accept digital payments, especially micro, small and medium enterprises in rural areas                  | December 2019                 |
| Utility, insurance and education institutions |                   | Increase use of DFS for utility/insurance/education bill payment   | Ensure 50% of clients use DFS to pay utility/insurance/education bills   | December 2019                 |
| MRA   |                   | Actively participate in creating awareness about using DFS in relation to tax payments, especially with rural and semi-urban populations               | Ensure 70% of Malawians are aware of the ability to use DFS to make tax payments   | December 2019                 |

| Stakeholder          | Agency/Department | Responsibilities   | Milestones   | Deadlines  |
|----------------------|-------------------|--|--|--|
| MRA (cont.)          |                   | Upgrade MRA ICT platform to ensure digitization of revenue streams (so DFS systems can plug into MRA MIS)  | Connect MRA platform to at least two DFS providers   | December 2018  |
|                      |                   | Ensure full use of DFS for P2G tax payments and B2G payments   | Ensure 80% of taxes are collected through DFS  | June 2020  |
| Development partners |                   | Digitize their own programmes – any payments should be made using DFS  | Transition 80% of programmes that are making payments to digital channels  | December 2018  |
|                      |                   | (Donors) Coordinate and align their support to help implement this roadmap as well as the National Strategy for Financial Literacy and National Strategy for Financial Inclusion | Align 100% of development partner funding with government strategies   | June 2018  |
|                      |                   | Support GoM and regulators in digitizing payments – both pilots and full roll-outs   | Fund at least two pilots/roll-outs in this roadmap   | December 2020  |
|                      |                   | Provide technical assistance and capacity-building support to MoF and other ministries as needed to implement digital payments   | Jointly identify and address areas where technical assistance is needed to meet the goals and milestones of this roadmap and provide that assistance | December 2020 (identification); Ongoing (technical assistance) |

*Acronyms:* ATMs, automated teller machines; B2G, business to government; DFS, digital financial services; GoM, Government of Malawi; ICT, information and communications technology; MACRA, Malawi Communications Regulatory Authority; MFIs, microfinance institutions; MIS, management information system; MMP, mobile money provider; MNOs, mobile network operators; MoF, Ministry of Finance, Economic Planning and Development; MoLGRD, Ministry of Local Government and Rural Development; MRA, Malawi Revenue Authority; NPS, National Payments System; NSL, National Switch Limited; P2G, person to government; POS, point of sale; RBM, Reserve Bank of Malawi

# 7

## ROADMAP FOR ACCELERATING THE SHIFT TO DIGITAL PAYMENTS IN MALAWI

### 7.1 Introduction to the roadmap

The critical success factors can be addressed by a GoM commitment to shift its payments. As private sector players begin to see these opportunities materialize, they can and will make needed investments. This section articulates a sequence of comprehensive projects (activity plans) to concurrently address critical success factors and meet the vision and objectives of this roadmap. Malawi is still a cash-heavy economy, but it is in the first stage of transition. GoM actively promotes and facilitates the movement of financial transactions from cash to digital in order to reach individuals who are unbanked and under-banked and also to service institutions operating in underserved areas. GoM, in collaboration with RBM, will continue to create an enabling policy, legal and regulatory environment for digital payments. This role will complement another important role of building a robust digital ecosystem, along with private sector and development partners, to increase financial inclusion in the country while giving utmost importance to creating awareness and ensuring protection of customers.

There are many types of transactions made within a payments system. Table 4 is a payment grid that summarizes possible payments between various actors in the system. It is important to note that there are priority G2P payments that have already been piloted under MoGCDSW, as well as payments of chiefs' monthly honoraria that has been successfully piloted in Balaka and Machinga districts by MoLGRD.

Table 4  
Possible payments between ecosystem actors

| Payer                       | Payee  |  |   |
|-----------------------------|--|--|---|
|                             | Government   | Private sector/Business                                | Individual/Person   |
| Government                  | G2G<br>1. Budget allocation<br>2. Funding programmes | G2B<br>1. Grants<br>2. Payments for goods and services | G2P<br>1. Salaries and pensions<br>2. Social protection under MoGCDSW and chiefs' honoraria by MoLGRD |
| Private sector/<br>Business | B2G<br>Taxes, fees and permits                       | B2B<br>Payments for goods and services in value chain  | B2P<br>Salaries and benefits  |
| Development organization    | D2G<br>Taxes   | D2B<br>Payments for goods and services                 | D2P<br>1. Salaries and benefits<br>2. Cash transfers  |
| Individual/<br>Person       | P2G<br>Taxes   | P2B<br>Purchases                                       | P2P<br>Remittances  |

Acronyms: B2B, business to business; B2G, business to government; B2P, business to person; D2B, development organization to business; D2G, development organization to government; D2P, development organization to person; G2B, government to business; G2G, government to government; G2P, government to person; P2B, person to business; P2G, person to government; P2P, person to person

Table 5 highlights payments that, after discussion, have been identified as priority both by GoM and the private sector

Table 5  
**Prioritized payments by Government of Malawi and private sector**

| Payer             | Payee              |   |   |
|-------------------|--------------------|---|---|
|                   | Government         | Private sector/Business   | Individual/Person   |
| Government        | G2G<br>In progress | G2B<br>All high-value government payments could be transferred to electronic platform | G2P<br>1. Allowances<br>2. Chief payments<br>3. Pension payments<br>4. Social sector payments for poor households<br>5. Social protection payments for public works |
| Individual/Person | P2G<br>Taxes       | P2B<br>Lilongwe Water Board bill payments   |   |

*Acronyms:* G2B, government to business; G2G, government to government; G2P, government to person; P2B, person to business; P2G, person to government

## 7.2 Roadmap projects

GoM proposes different projects to pilot and roll out for the digitization of different payment streams. The projects also correspond to and address many critical success factors. The project descriptions below include a brief narrative about the project objective(s), context and motivation, expected outcomes, primary activities, lead stakeholders and support (resources or technical assistance) that may be needed and proposed timeline.



### 7.2.1 Projects to build capacity and provide regulatory support

#### 7.2.1.1 Harmonized policy and regulation

There is a need to develop an enabling environment by ensuring that relevant laws, regulations and policies to support digital payments in the country are in place and up-to-date. Currently, there are three critical laws that have already been passed by Parliament, assented and awaiting gazetting namely National Payments Systems, E-Transactions and Communications Laws and one regulation (E-Money Regulations) that had been submitted by RBM to MoF and Ministry of Justice and Constitutional Affairs for vetting and approval but now withdrawn to align it with the National Payments Systems Law. These laws/regulations are expected to play a vital role in regulating payments in Malawi and in protecting customers. Timely amendments of these laws/regulations will be needed to support the growth of the DFS sector.

#### Objective of the project

Build the capacities of RBM, MoF and MACRA to strengthen the policies and regulations related to digital payments in Malawi

|   |
|---|
| <b>Context</b>  |
| Malawi is still in the nascent stage of providing DFS. Current laws and regulations require strengthening to support the growth of the sector and to protect customers. It is therefore imperative to build the capacities of RBM, MoF and MACRA in order to create a conducive regulatory environment.   |
| <b>Outcomes</b>   |
| <ul style="list-style-type: none"> <li>• E-Money Regulations revised, approved and gazetted</li> <li>• Policies enhanced and new policies introduced to support the growth of digital payments</li> <li>• Effective monitoring and supervision/oversight of DFS providers</li> </ul>  |
| <b>Main activities</b>  |
| <ul style="list-style-type: none"> <li>• Support RBM, MoF and MACRA in finalizing the draft regulations and laws and in supporting the Cabinet and Parliament to approve the regulations and laws</li> <li>• Build capacity of RBM and MoF in monitoring and supervision/oversight of DFS providers (banks and non-banks)</li> <li>• Learn from peers in other countries about monitoring and supervision/oversight of DFS providers and customer protection regulations</li> <li>• Review different digital payment initiatives to inform improvements to or amendments of the regulations/guidelines</li> <li>• Conduct regular workshops with different stakeholders to understand the limitations of regulations to increase outreach and uptake, and learn from peer central banks how to overcome these limitations</li> <li>• Hold quarterly industry dialogue meetings between DFS providers and RBM, MoF and MACRA to discuss new initiatives, challenges faced by DFS providers and ways to leverage NSL for innovative payments, if any</li> </ul> |
| <b>Key stakeholders</b>   |
| <ul style="list-style-type: none"> <li>• RBM</li> <li>• MoF</li> <li>• MACRA</li> <li>• Competition and Fair Trading Commission</li> <li>• Financial Intelligence Unit</li> <li>• DFS providers</li> <li>• NSL</li> <li>• Development partners</li> </ul>   |
| <b>Support needed</b>   |
| Technical and financial assistance to support proposed activities   |
| <b>Timeline</b>   |
| Q2 2017–Q4 2021   |

### 7.2.1.2 Increased support to collect and analyse digital financial service data

Currently, RBM is collecting data on a regular basis from banks and non-banks. However, its data analysis and data management capacities are limited. RBM feels the need to enhance its data analysis capacities to make evidence-based decisions to improve the regulatory environment. DFS players have explicitly expressed that RBM should move swiftly on regulations with help from analysed data. This project is aimed at supporting RBM to improve data analysis and management to effectively measure the progress of digitization.

|   |
|---|
| <b>Objective of the project</b>   |
| Improve the ability of RBM to collect, manage and analyse data from DFS providers in order to better monitor and design specific regulations and other incentives to promote digitization |

|   |
|---|
| <b>Context</b>  |
| RBM collects data from banks and non-bank providers on a monthly basis. In 2014 and 2015, RBM redesigned data collection templates and processes to better meet its objective to monitor development, enhance DFS oversight and provide policy guidance for developing digital finance. The current challenge faced by RBM is to improve processes for data collection, cleaning, analysis and verification as well as to have the right level of aggregated information.   |
| <b>Outcomes</b>   |
| The results of this project would include improved reporting templates and processes including providers' and customers' data, automated data collection and analysis process, strategic dashboard and standard operating procedures for regulated entities, and clear use case for RBM and MoF and understanding of the data's value.  |
| <b>Main activities</b>  |
| <ul style="list-style-type: none"> <li>• Conduct technical review of the updated templates and processes at RBM</li> <li>• Develop a mechanism for collecting necessary data required by GoM to track key indicators on digitization of payments</li> <li>• Learn from peer central banks about automated data collection, analysis and verification</li> <li>• Develop processes to collect data from customers</li> <li>• Automate collection processes from DFS providers (banks and non-banks)</li> <li>• Develop cross-verification of data collected from providers (banks and non-banks) with NSL</li> <li>• Develop procedures to clean collected data and to automate data analysis</li> <li>• Build capacity of RBM in using the analysed data to make evidence-based decisions in the development of the overall DFS ecosystem and to inform necessary amendments in regulations</li> <li>• Develop the strategic dashboard for RBM and GoM with an appropriate level of information to monitor and design incentives and policy related to digital finance</li> </ul> |
| <b>Key stakeholders</b>   |
| <ul style="list-style-type: none"> <li>• RBM – NPS Department, Banking Supervision Department, and Research and Statistics Divisions</li> <li>• MoF</li> <li>• Development partners</li> <li>• Accountant General</li> <li>• Bankers Association of Malawi</li> <li>• DFS Coordinating Group</li> </ul>   |
| <b>Support needed</b>   |
| Technical and financial assistance to support activities proposed   |
| <b>Timeline</b>   |
| Q2 2017–Q2 2018   |

### 7.2.1.3 Technical support to National Switch Limited to maximize utilization

NSL plays a critical role in enabling interoperability between different financial service providers and reducing transaction costs for DFS providers and ultimately to customers. Currently, NSL is enabling interoperability for all ATM and POS transactions between four banks. MMPs are in the process of connecting to NSL. Once MMPs are linked to NSL, they will integrate with a broader range of institutions involved in enabling or receiving payments. It is important to note that the focus of this project is already part of the World Bank FSTAP implementation plan/project appraisal document.

|  |
|--|
| <b>Objective of the project</b>  |
| Further leverage NSL to increase interoperability amongst different institutions involved in the digital payment sector  |
| <b>Context</b>   |
| NSL became operational in February 2015. However, the Malawian DFS sector is yet to optimally utilize NSL and to maximize benefits of interoperability amongst different institutions. |

|   |
|---|
| <b>Outcomes</b>   |
| <ul style="list-style-type: none"> <li>• Full interoperability between accounts held at banks and non-banks, including MMPs</li> <li>• All relevant digital payments routed through NSL</li> <li>• Conceptualization of innovative payment products and services that can be developed by interoperable DFS providers</li> </ul>  |
| <b>Main activities</b>  |
| <ul style="list-style-type: none"> <li>• Assess the capacity of NSL and phased plans to integrate different types of institutions</li> <li>• Review and develop a strategic plan and business case for NSL, including experiences to date, peer learnings from other national switches in the region and across the globe, etc.</li> <li>• Obtain approvals from the board of NSL</li> <li>• Implement revised phased approach to include priority institutions to support payment digitization</li> <li>• Hold quarterly stakeholder reviews of NSL progress</li> <li>• Review and finalize standardized operational protocols, if required</li> <li>• Lobby for policies to promote level playing field amongst different types of DFS providers</li> <li>• Review data indicators provided to RBM on a regular basis to monitor the progress of payment digitization</li> <li>• Build capacity of NSL for smooth operations</li> </ul> |
| <b>Key stakeholders</b>   |
| <ul style="list-style-type: none"> <li>• NSL</li> <li>• RBM</li> <li>• MoF</li> <li>• Accountant General</li> <li>• Banks and non-banks</li> <li>• Utilities, bulk payers, etc.</li> <li>• Development partners</li> <li>• DFS providers</li> </ul>   |
| <b>Support needed</b>   |
| <p>Technical assistance and funding to support activities proposed. The World Bank under FSTAP is already funding some of the activities in this project. Implementation of this project will require that activities involved in this project be synchronized with those that the World Bank is funding.</p>   |
| <b>Timeline</b>   |
| <p>Q3 2017–Q2 2018</p>  |

#### 7.2.1.4 Support to Ministry of Finance to create a department for all government social payments

GoM makes various social protection payments under different ministries (e.g., public works are handled by MoF while social cash transfers are managed by MoGCDSW). There could be efficiency gains if all social payments were assigned to one department, be it an existing or new department specializing in social payments, as observed during an exposure visit by GoM officials to South Africa. South Africa has put all social protection payment registration, disbursement and management under a specialized agency called South African Social Security Agency, which has proven to be very efficient. The Agency was formed in 2006, drawing its mandate from the South African Social Security Agency Act (Act No. 9 of 2004) and Social Assistance Act (Act No. 13 of 2004).

|  |
|--|
| <b>Objective of the project</b>  |
| <p>Reorganize social protection payments to be managed by one government department/agency</p> |

## Context

GoM makes various social protection payments under different ministries (e.g., public works are handled by MoF while social cash transfers are managed by MoGCDSW). There could be efficiency gains if all social payments were assigned to one department, be it an existing or new department specializing in social payments, as observed during an exposure visit by GoM officials to South Africa. South Africa has put all social protection payment registration, disbursement and management under a specialized agency called South African Social Security Agency, which has proven to be very efficient. The Agency was formed in 2006, drawing its mandate from the South African Social Security Agency Act (Act No. 9 of 2004) and Social Assistance Act (Act No. 13 of 2004).

## Outcomes

- One department/agency instituted to manage all social payments
- One database established for all social payments
- One MIS established to manage all social payments

## Main activities

- Identify all social protection payments
- Decide which department/agency will handle all payments
- Mobilize resources for the establishment of the department/agency
- Build capacity of workers in the new department/agency
- Manage the change process

## Key stakeholders

- Office of the President – Public Service Reforms Division
- MoF – Pension and Financial Sector Policy Division
- MoF – Social Protection Division
- MoGCDSW
- Accountant General
- Development partners

## Support needed

- Technical assistance support for proposed harmonized department/agency for social payments
- Funding to support the transitional activities

## Timeline

Q3 2018



## 7.2.2 Projects to improve financial literacy and awareness

### 7.2.2.1 Improvement of public awareness and financial literacy levels regarding digital payments

Malawians, especially rural Malawians, lack a basic understanding of financial services and specifically of DFS. Urban Malawians are somewhat active in their use of digital channels of banks and MMPs. However, to get to mass usage, it is critical to create financial awareness amongst the rural and semi-urban populations and promote digital payments.

## Objective of the project

Develop financial literacy and digital payment awareness modules, increase financial literacy levels on digital payments, improve awareness of different DFS channels, and communicate benefits and value propositions to customers

## Context

Malawians lack a basic understanding of financial services and more than half of the population is excluded from the formal financial system. The urban populace has already been actively using digital channels for banking, mobile money and payments. It is critical to create awareness amongst rural and semi-urban populations to promote digital payments.

## Outcomes

- Confirmation of readiness for full-scale implementation of financial literacy and awareness modules and for communication channels
- Trial run for the programme to determine if any adjustments to modules or channels are necessary
- Increased financial literacy and digital payment awareness amongst rural and semi-urban populations, which will help increase uptake and regular usage

## Main activities

- Review different ongoing financial literacy and awareness campaigns by different institutions and identify gaps
- Improve the coordination between existing initiatives and the effectiveness of such initiatives
- Develop different modules for financial literacy and awareness focusing on digital payments, benefits of digital payments and value propositions to customers
- Review different channels to educate customers using the modules such as trainings, plays, road shows, media etc. and to communicate appropriate messages suitable for specific customer segments
- Define roles and responsibilities of different stakeholders for financial literacy and digital payment awareness creation
- Develop a pilot plan
- Complete pilot preparations and mobilize required resources for pilot including identification of different stakeholders to implement the financial literacy and awareness creation campaigns
- Finalize objectives and key performance indicators (KPIs) for different stakeholder institutions involved
- Conduct pilot for six months in a controlled geography
- Review pilot and develop lessons learned
- Share pilot results with all stakeholders
- Develop a phased roll-out plan by involving a range of stakeholders from different geographies
- Finalize training modules/channels based on pilot results and lessons learned
- Finalize objectives and KPIs for different stakeholder institutions involved in roll-out based on pilot results and lessons learned
- Identify and finalize different stakeholders to implement the financial literacy and awareness creation campaigns
- Roll out to all geographies (use lessons learned from pilot to scale up)
- Conduct quarterly review of the progress of the roll-out in different parts of the country
- Assess the effectiveness of financial literacy and awareness creation campaigns in different geographies and document the lessons learned on a yearly basis
- Conduct regular ongoing reviews and updates of the training modules/channels based on the assessment and lessons learned of the campaigns

## Key stakeholders

- MoF
- RBM
- MNOs
- Banks and non-banks
- MRA
- Development partners
- NGOs and MFIs
- Promoters of village savings and loan associations

## Support needed

Technical and financial assistance support for proposed activities

## Timeline

Pilot: Q3 2017–Q2 2018  
Roll-out: Q3 2017–Q4 2021



## 7.2.3 Projects to increase government use of digital financial services

### 7.2.3.1 Mass electronic payments (one to many)

This use case covers a range of payment streams considered 'one to many,' i.e. one payer paying to multiple parties. Mass electronic payments include a variety of payment types including the following:

- Fund disbursements from central government to district- and municipal-level governments, i.e. government to government (G2G)
- Salary and pension payments from government to person (G2P) and business to person (B2P)
- Conditional cash transfers, or other social programmes and subsidies (G2P)
- Supplier payments from business to person (B2P) and government to business (G2B)

Because some of these activities may be funded by other development partners, like the World Bank FSTAP, there is a need for synchronization for the projects described below. There may also be a need for support to focus on agent network growth and liquidity to address the needs of the pilot.

### 7.2.3.2 Pilot testing with three priority payment streams (research, implementation and lessons learned)

Mass electronic payments should be the first stream to be digitized as the amounts to be transferred are pre-determined and thus the systems could be designed based on pre-assigned variables. Also, the volumes and values of these payments are relatively high. There are several payment streams in Malawi that fall under the one-to-many category; however, the projects that should be prioritized are the streams that are currently disbursing cash to beneficiaries. Payments to traditional leaders represent one such prioritized payment stream since these individuals are opinion leaders in their communities and their positive word-of-mouth can significantly add to DFS promotion efforts to other groups of potential users.

#### Objectives of the project

- Pilot test digitization of three priority G2P payments that are currently being made in cash for the purpose of identifying practical lessons regarding implementation as well as real challenges that GoM might encounter in digitization of payments
- Based on experiences from the pilot, customize and roll out systems to other geographies and to other payment streams

#### Context

GoM disburses some payments in cash to beneficiaries. After several consultations with GoM, three payments have been identified as priority:

- Payments to 40,000 traditional leaders across the country that MoLGRD is making manually.
- Social payments to 163,000 ultra-poor households that MoGCDSW is making, 90% of which in cash.
- Public works payments to 1,200,000 Malawians under a labour-for-cash arrangement that the Department of Economic Development, under MoF, is making in cash.

#### Outcomes

- Confirmation of readiness for subsequent full-scale implementation
- Trial run for the programme to help determine if any adjustments to implementation plan or adaptations are necessary
- Identification of unforeseen challenges that might arise during implementation and gauge of target population's reaction to the digitization programme
- Help in making better decisions about how to allocate time and resources to ensure readiness of stakeholders
- Successful digitization of payments in different geographies for different payment streams

### Main activities

- Conduct needs assessment of beneficiaries to understand client demand, perceptions, preferences and any obstacles or resistance to changes in payment mechanism and technology
- Conduct activity-based costing exercise to engage relevant ministries involved in the process and to quantify costs (and improvements) of existing system
- Develop technical specifications for the solution proposed
- Develop digitization plan with different government ministries involved in the pilot
- Digitize beneficiary database and integrate with service delivery mechanism where applicable
- Build business case for relevant ministry to switch payments from cash to digital
- Develop a pilot plan with pilot objectives, KPIs for different stakeholders and required pilot preparations
- Identify pilot locations on the basis of service provider locations
- Support ministry and DFS providers to prepare and implement the pilot
- Prepare a suitable grievance redress mechanism
- Get approval from relevant ministry for pilot implementation
- Mobilize resources for pilot and implement pilot
- Review the pilot and develop lessons learned
- Share the lessons learned with different stakeholders, including different government ministries and departments
- Develop phased roll-out plan to expand digitization to other geographies and to other payment streams
- Approach and convince different ministries and DFS providers to participate in roll-out
- Support ministries and DFS providers to prepare and implement the roll-out
- Assess different ministries' readiness to digitize payments
- Map service provider locations with different ministries' payment locations
- Create awareness within target population on digital payments, benefits, value propositions, etc. in roll-out locations
- Refine grievance redress mechanism based on experiences during pilot
- Customize different processes, systems and policies based on pilot and lessons learned
- Roll out digitization of payments
- Regularly review roll-out of digitization of payments and document lessons learned
- Organize workshops with different stakeholders to share the roll-out reviews and lessons learned
- Report on progress and lessons learned to BTCA and its members

### Key stakeholders

- Principal Secretaries and Directors for GoM ministries and departments
- Accountant General
- NSL
- Development partners
- Banks and MNOs
- District Commissioners

### Support needed

Technical assistance and capacity-building for proposed activities

### Timeline

Pilot: Q3 2017–Q2 2018

Roll-out: Q3 2018–Q4 2021

#### 7.2.3.3 Pilot testing of bank-MMP integration to provide school teachers with access to salaries at agent outlets

Civil servants in rural and semi-urban areas travel long distances (30–40 km) to access their funds from bank branches or ATMs. Due to this travel, their transaction cost—including transportation and travel time (opportunity cost)—is quite high. This project is a pilot test involving school teachers as the target segment. It will integrate a bank and an MMP to enable teachers to access their salaries at a nearby trading centre using agents and will promote digital channels for trade-

related payments. School teachers are key influencers and opinion leaders in their communities and their positive word-of-mouth can significantly contribute to uptake and regular use of DFS.

### Objectives of the project

- Pilot test bank-MMP integration to reduce proximity challenges faced by school teachers in rural and semi-urban areas, allowing teachers to withdraw their salaries at nearby agent outlets, for the purpose of identifying practical lessons regarding implementation and real challenges that banks and MMPs face in partnering to offer digital payments
- Based on pilot results, roll out initiative to other geographies and to all civil servants

### Context

There are more than 70,000 primary and secondary school teachers in Malawi. Although all school teachers receive their salaries through their bank accounts, teachers based in rural and semi-urban locations travel long distances (30–40 km) to access their funds from bank branches or ATMs. A combination of withdrawal charges and transportation costs make overall costs for teachers to access their salaries very high.

### Outcomes

- Confirmation of readiness for subsequent full-scale implementation
- Trial run for the programme to help determine if any adjustments to implementation plan or adaptations are necessary
- Confirmation that the bank-MMP integration is a viable solution and the challenges faced by different institutions and ultimately teachers
- Identification of unforeseen challenges that might arise during implementation and gauge of target population's reaction to the integration
- Help in making better decisions about how to allocate time and resources to ensure readiness of stakeholders
- Roll-out of the bank-MMP integration to other school teachers in other geographies, to other civil servants across Malawi and also to all citizens who opt for it

### Main activities

- Conduct research to understand the following:
  - Challenges faced by school teachers, needs and preferences, perceptions about mobile money and agents, and any obstacles or resistance to change
  - Readiness of banks, non-banks and NSL to integrate for push-and-pull services between bank accounts and mobile wallets
- Develop a business model and a business case for banks and MMPs
- Identify locations on the basis of service provider locations
- Develop a pilot plan with pilot objectives, KPIs for different stakeholders and required pilot preparations
- Get approval from relevant ministry for pilot implementation
- Create awareness within target population on digital payments, benefits, value propositions, etc.
- With banks and MNOs, design appropriate products and pricing, identify quality agents in the pilot areas and develop suitable education campaigns
- Assess network coverage, electricity constraints and mobile phone ownership and work with various stakeholders to offer appropriate solutions for users
- Set up a suitable national grievance redress mechanism along with promotion of the same through schools
- Mobilize resources for pilot and implement pilot
- Support MMPs and banks in managing liquidity requirements in the pilot locations
- Review the pilot and develop lessons learned
- Share pilot results with different ministries and other stakeholders
- Develop phased roll-out plan to include all school teachers and other G2P payment streams to enable push-and-pull services to all Malawians
- Approach and convince different ministries and providers to resolve proximity and convenience challenges
- Get approval from relevant ministries and different banks/providers
- Create awareness within target population on digital payments, benefits, value propositions, etc.
- Refine national grievance redress mechanism based on experiences during pilot
- Refine/Simplify processes/user interface, if required based on experiences during pilot
- Support MMPs and banks in rolling out push-and-pull services
- Regularly review the roll-out to different payment streams and document lessons learned
- Report on progress and lessons learned to BTCA and its members

#### Key stakeholders

- Principal Secretaries and Directors for MoF and Ministry of Education, Science and Technology
- Accountant General
- Banks and MMPs
- NSL
- District Commissioners
- Development partners

#### Support needed

Technical assistance and capacity-building for proposed activities

#### Timeline

Pilot: Q3 2017–Q2 2018  
Roll-out: Q3 2018–Q4 2010

#### 7.2.3.4 Remote bill payments (many to one)

Remote bill payments refer to payments made to public or private service providers in a manner other than in-person payments at the service provider's place of business. Individuals, businesses and government entities can effect remote bill payments with a range of payment instruments (e.g., card at POS, mobile banking, mobile financial services) from one of several stores of value (e.g., bank account, mobile money wallet). One of the most common examples of remote bill payment is with a utility company, which enables customers to pay their bills at a retailer with whom they have concluded a service agreement.

Other examples include the following:

- Collection of taxes (P2G, B2G)
- Utility payments (P2B, B2B, D2B, G2B)
- Collection of school fees (P2B)
- Credit card payments (P2B)
- Social security contributions (G2B, P2B, B2B)

#### 7.2.3.5 Pilot testing of bill payments through digital channels (research, implementation and lessons learned)

Currently, people based in urban and important semi-urban locations have access to utilities such as electricity and piped water. They tend to be more literate and have higher income levels. If electricity and water payments are digitized, then there is a high chance of success given that most of the users have access to technology. Once digitization is successful, it can be expanded to other remote bill payment streams. Lilongwe Water Board conducted a pilot that involved the meter reader carrying a handheld device to generate the bill. The consumer could pay through mobile money on the spot. Such pilots, where the utility service provider has taken initiative to digitize bill payment, need to be supported, as they serve as good use cases.

#### Objectives of the project

- Pilot test digitization of priority P2B payments—remote bill payments—that are currently being made in cash or through bank deposits for the purpose of identifying practical lessons and challenges faced by customers and providers
- Roll out to other remote bill payments as well as to other streams of many-to-one payments

## Context

P2B payments are currently being paid in the form of cash, bank cheques or bank deposits, specifically:

- Water bill payments to water boards by individuals.
- Electricity bill payments to ESCOM by 320,000 individuals with an average monthly payment of MK 15,000–MK 20,000.

## Outcomes

- Confirmation of readiness for subsequent full-scale implementation
- Trial run conducted for the programme to help determine if any adjustments to implementation plan or adaptations are necessary
- Identification of unforeseen challenges that might arise during implementation and gauge of target population's reaction to the digitization programme
- Help in making better decisions about how to allocate time and resources to ensure readiness of stakeholders
- Roll-out of other remote bill payments as well as other many-to-one payment streams

## Main activities

- Conduct research to understand customer needs and preferences, perceived benefits and challenges, and resistance to change in payment mechanism and technology
- Identify and prioritize remote bill payments for digitization
- Develop business case for the institutions involved: ESCOM/water boards and banks/non-banks
- Identify pilot locations on the basis of service provider locations
- Assess the readiness and integration of the institutions (ESCOM/water boards) with payment service provider(s) (banks/non-banks)
- With banks and MNOs, design appropriate products and pricing, identify quality agents in the pilot areas and develop suitable education campaigns
- Assess network coverage, electricity constraints and mobile phone ownership and work with various stakeholders to offer appropriate solutions for users
- Develop a pilot plan with pilot objectives, KPIs for different stakeholders and required pilot preparations
- Set up a suitable grievance redress mechanism
- Create awareness within target population on digital payments, benefits, value propositions, etc.
- Complete pilot preparations, mobilize required pilot resources and conduct pilot
- Review the pilot and develop lessons learned
- Share pilot results with different ministries and other stakeholders
- Develop phased roll-out plan and support roll-out to other geographies and other many-to-one payment streams
- Approach a range of institutions to shift from cash or bank deposits to digital channels to make/receive payments
- Get approval from different ministries (G2B) and from other institutions for implementation
- Create awareness within target population on digital payments, benefits, value propositions, etc.
- Refine grievance redress mechanism based on experiences during pilot
- Refine/Simplify processes/user interface, if required based on experiences during pilot
- Support banks and non-banks in rolling out
- Regularly review the roll-out to different payment streams and document lessons learned
- Report on progress and lessons learned to BTCA and its members

## Key stakeholders

- ESCOM/water boards
- Service providers – banks, MMPs and non-banks
- NSL, if NSL is ready to integrate with utility providers
- Development partners
- GoM

## Support needed

Technical assistance and capacity-building support for proposed activities

## Timeline

Pilot: Q3 2017–Q2 2018

Roll-out: Q3 2018–Q4 2021

### 7.2.3.6 Pilot testing of tax payments through digital channels (research, implementation and lessons learned)

MRA has been proactive in digitization of tax receipts. It has developed and recently tested an e-payments system that creates a payment reference number (PRN) for each tax payment. The PRN is a unique ID for each tax payment; the taxpayer should quote the PRN when depositing/transferring the tax amount. MRA should further allow the taxpayer to pay taxes directly using a mobile money account. Currently, MRA is undergoing system audits for the recently tested e-payments system. Hence, this project is planned to start in 2017, assuming MRA will complete the system audits and get necessary approvals to roll out the system by that time.

#### Objective of the project

- Pilot test digitization of tax payments by individuals that are currently being made in cash or through bank deposits for the purpose of identifying practical lessons and challenges faced by customers and providers
- Roll out to other geographies and other payments

#### Context

MRA has successfully tested an e-payments system where taxpayers receive a PRN for each tax payment with payer details, purpose and tax amount. The taxpayer quotes the PRN to the bank or to the MRA cashier and deposits the amount. This pilot aims at replacing cash with digital payments.

#### Outcomes

- Confirmation of readiness for subsequent full-scale implementation
- Trial run for the programme to help determine if any adjustments to implementation plan or adaptations are necessary
- Identification of unforeseen challenges that might arise during implementation and gauge of target population's reaction to the digitization programme
- Help in making better decisions about how to allocate time and resources to ensure readiness of stakeholders
- Successful roll-out to all geographies with reduced dependency on cash payments

#### Main activities

- Conduct research to understand current challenges faced by customers with the existing process, needs and preferences, perceived benefits and challenges, and resistance to change in payment mechanism and technology
- Identify and prioritize different taxes for digitization
- Develop business case for MRA and DFS providers
- Identify pilot locations on the basis of service provider locations
- Obtain approvals from MRA management for pilot implementation
- Develop standard operating procedure for exception management
- Set up a suitable grievance redress mechanism
- Assess the readiness and integration of MRA with NSL to access service provider(s) – banks and non-banks
- With banks and MNOs, design appropriate products and pricing, identify quality agents in the pilot areas and develop suitable education campaigns
- Assess network coverage, electricity constraints and mobile phone ownership and work with various stakeholders to offer appropriate solutions for users
- Develop a pilot plan with pilot objectives, KPIs for different stakeholders and required pilot preparations
- Create awareness within target population on digital payments, benefits, value propositions, etc.
- Complete pilot preparations, mobilize required pilot resources and conduct pilot
- Review pilot and develop lessons learned
- Share pilot results with MRA management as well as with other stakeholders
- Develop a phased roll-out plan and support roll-out to other geographies and with other tax payments
- Get approval from MRA management for roll-out to all tax payments
- Create awareness within target population on digital payments, benefits, value propositions, etc.
- Refine grievance redress mechanism based on experiences during pilot
- Refine/Simplify processes/user interface, if required based on experiences during pilot
- Support banks and non-banks in roll-out
- Regularly review the roll-out to different payment streams and document lessons learned
- Report on progress and lessons learned to BTCA and its members

|   |
|---|
| <b>Key stakeholders</b>   |
| <ul style="list-style-type: none"> <li>• MRA</li> <li>• Service providers – banks and non-banks</li> <li>• NSL</li> <li>• Development partners</li> </ul> |
| <b>Support needed</b>   |
| Technical assistance and capacity-building support for proposed activities  |
| <b>Timeline</b>   |
| Pilot: Q4 2017–Q3 2018<br>Roll-out: Q4 2018–Q4 2021   |



## 7.2.4 Projects to address merchant payments (point of sale and mobile)

This use case consists of an individual making a purchase at a place of business using a debit card on a POS device or paying through mobile money/mobile banking instead of cash. Using a debit card or paying through a mobile device is considered a two-sided market in that consumers must be willing to use cards and merchants must be willing to accept them. Some banks like National Bank of Malawi and Standard bank have placed POS devices at merchant shops such as Game, Shoprite and Chipiku Plus. Banks and MMPs should sell the value proposition of accepting payments digitally to merchants.

### 7.2.4.1 Pilot testing of merchant payments using digital channels (research, implementation and lessons learned)

Malawi still lacks the required ecosystem to have significant digitization of merchant payments. Banks have been pushing retail chain networks to accept payments through digital channels, but none of the retail chains are ready yet. However, merchant payments are necessary in order to achieve a long-term vision of a cash-lite economy. Significant preparation is needed at the level of service providers in developing a value proposition for merchants and customers to use digital channels for merchant payments.

|   |
|---|
| <b>Objectives of the project</b>  |
| <ul style="list-style-type: none"> <li>• Pilot test the promotion of merchant payments using digital channels for the purpose of identifying practical lessons and challenges faced by customers, merchants and providers</li> <li>• Promote and roll out regular usage of digital channels for merchant payments</li> </ul>  |
| <b>Context</b>  |
| Merchant payments are currently being paid largely in cash. Two payment streams will be prioritized for pilot testing purposes: <ul style="list-style-type: none"> <li>• Merchant payments using debit cards, and</li> <li>• Merchant payments using mobile wallets.</li> </ul>   |
| <b>Outcomes</b>   |
| <ul style="list-style-type: none"> <li>• Confirmation of readiness for full-scale implementation of both the models</li> <li>• Trial run for the programme to determine if any adjustments to implementation plan or adaptations are necessary</li> <li>• Identification of unforeseen challenges that might arise during implementation and also customers' and merchants' usage of and perceptions towards digital payments</li> <li>• Successful regular usage of digital channels for merchant payments in all geographies</li> </ul> |

## Main activities

- Conduct secondary research to understand different merchant payment initiatives in other countries (Kenya, Nigeria, etc.)
- Conduct secondary research on cost of transactional devices in neighbouring countries and taxation on the devices, liaising with governments to review the taxation
- Conduct primary research to understand current challenges faced by merchants, perceived challenges of digital payments, and merchants' willingness and readiness to accept digital payments
- Create vision for role of banks and non-banks in merchant payments
- Identify and select providers (banks and MMPs) for the pilot
- Identify potential third parties to support the development of merchants (e.g., Kopo Kopo in Kenya)
- Identify pilot locations on the basis of service provider locations
- Develop a pilot plan with pilot objectives, KPIs for different stakeholders and required pilot preparations
- Set up a suitable grievance redress mechanism
- Integrate with NSL for merchant payments using POS and mobile money and ensure interoperability for merchant transactions
- Complete pilot preparations, mobilize required pilot resources and conduct pilot
- Create awareness amongst merchants and customers on digital payments, benefits, value propositions, etc.
- Review the pilot and document lessons learned
- Share pilot results with other service providers (banks and non-banks) and other stakeholders
- Develop a phased roll-out plan to other geographies and also to other institutions
- Create awareness within target population on digital payments, benefits, value propositions, etc.
- Refine grievance redress mechanism based on experiences during pilot
- Refine/Simplify processes/user interface, if required based on experiences during pilot
- Roll out to other payment streams (use lessons learned from pilot to scale up)
- Support banks and non-banks in roll-out
- Regularly review the roll-out and document lessons learned
- Report on progress and lessons learned to BTCA and its members

## Key stakeholders

- MMPs
- Banks
- Non-banks
- NSL
- Merchants
- Development partners

## Support needed

Review of taxation on transactional devices by GoM  
Technical assistance support for proposed activities

## Timeline

Pilot: Q3 2017–Q2 2018  
Roll-out: Q3 2018–Q4 2021

# 8

## PROJECT MANAGEMENT

GoM—particularly MoF—will champion the transition from cash to digital by implementing different projects and activities mentioned in this roadmap. Apart from that work, GoM and MoF in particular will be responsible for project management and thus will need to acquire relevant knowledge and skills. They will also need support from different development partners in the country in implementing the roadmap. Different project management activities are explained below.

### Objectives of the project

- Support GoM in acquiring relevant knowledge and skills to shift from cash to digital payments
- Coordinate with different ministries and private sector stakeholders
- Implement the roadmap

### Context

Out of 221 million payments made in 2013, 99.7% were cash payments. GoM envisages shifting the majority of its payments from cash to digital. MoF is championing the transition.

### Outcomes

- Support in achieving the vision and objectives for the transition from cash to digital
- Support in identifying, prioritizing and testing different payment streams and in documenting lesson learned
- Support in rolling digitization out to other payment streams using lessons learned from pilot to scale up
- Sharing of lessons learned and progress with BTCA and other countries

### Main activities

- Promote a fully functional Steering Committee for the transition: develop terms of reference for the Committee, form the Committee, hold regular meetings and regularly review the progress of different initiatives to shift from cash to digital
- Promote a fully functional Technical Committee: develop terms of reference for the Committee, form the Committee with industry experts and hold regular meetings to review the progress of different initiatives—pilots and roll-outs—to shift from cash to digital
- Support implementing the roadmap
- Coordinate and liaise with different government ministries
- Coordinate and liaise with different departments of RBM and private sector
- Provide technical assistance support to assess the requirements for a national database and establish a national database for G2P payments
- Identify data points for resident database
- Determine source of data points, mode of collection and frequency of data updates
- Develop mechanism for de-duplication of recipients
- Provide technical assistance support in identifying, prioritizing and pilot testing different initiatives – G2P, P2B, P2G, merchant payments, etc.
- Contract consultants to support the transition and provide technical assistance support for proposed initiatives
- Provide half-yearly progress update to BTCA and liaise with BTCA to identify different learning initiatives for peer learning

- Prepare to become eligible for BTCA technical assistance to support the transition
- Prepare to become eligible for support in areas such as evaluation of payments system opportunities
- Prepare to receive recognition for payment digitization in Malawi in BTCA publications
- Organize peer learning programmes
- Conduct quarterly/yearly reviews of roadmap activities and reports detailing different ongoing initiatives, progress, plans and challenges in implementation
- Increase knowledge and build capacity of different staff of various ministries and private sector players involved
- Document lessons learned from the digitization journey

#### Key stakeholders

- Director of Pension and Financial Sector Policy Division and other MoF staff
- Principal Secretaries and Directors of different government ministries
- Development partners
- Service providers – banks, MMPs and non-banks
- Different industry associations – Bankers Association of Malawi, Malawi Microfinance Network, etc.
- District Commissioners

#### Support needed

- Technical assistance support for proposed activities
- Financial assistance, or directly contracted consultants, to support the transition and to provide technical assistance for different proposed initiatives
- Financial assistance support to organize different committee meetings and trainings for both government and private sector actors

#### Timeline

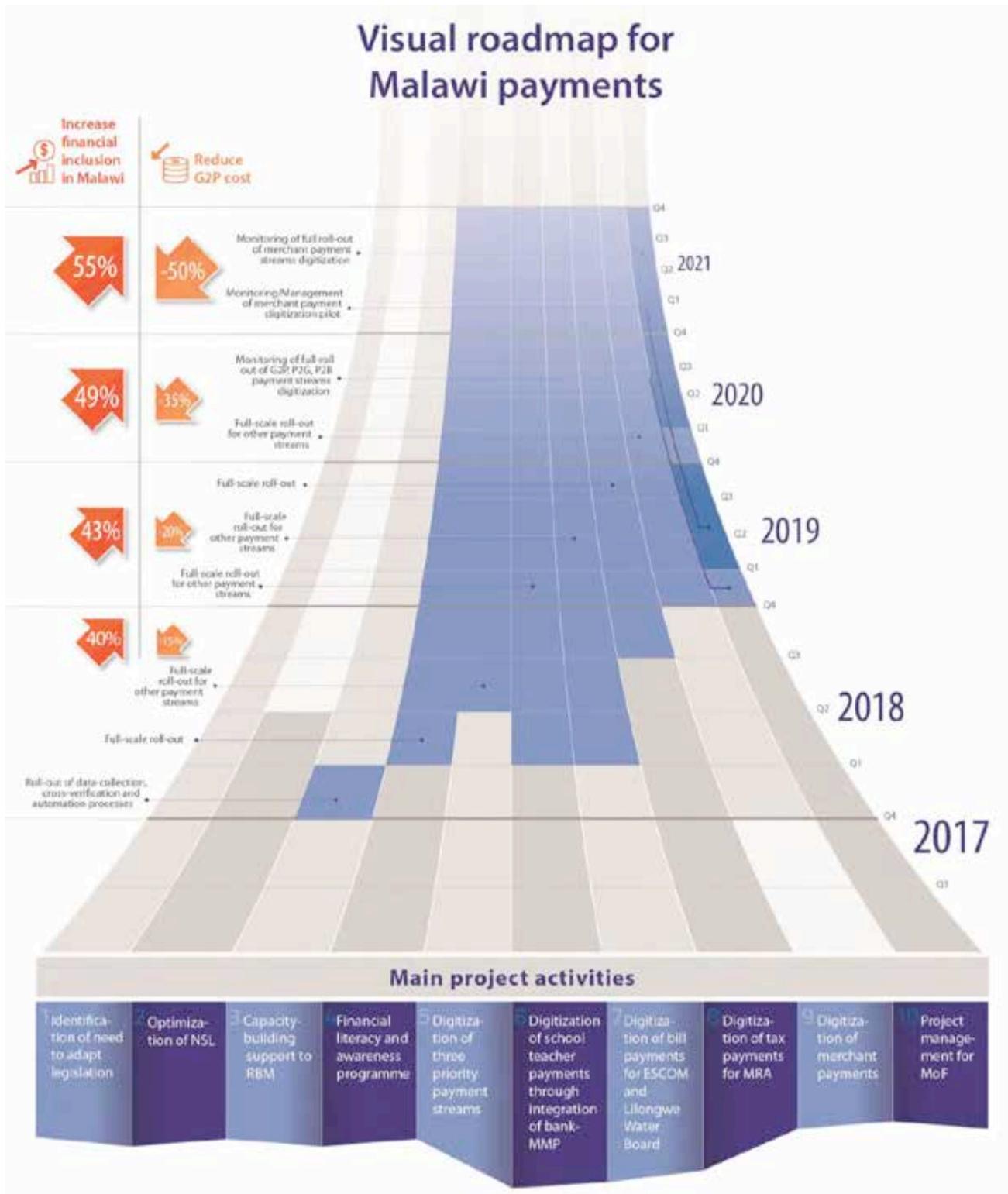
Q3 2017–Q4 2021

# 9

## FIVE-YEAR VISUAL ROADMAP

Different projects detailed in the previous sections will be implemented in different phases spread over five years (see figure VII). Years 2017 and 2018 will primarily focus on identifying, prioritizing and pilot testing digitization of payment streams. Upon completion of successful pilots, digitization of different payment streams will be rolled out across Malawi.

Figure VII  
Visual roadmap



Acronyms: G2P, government to person; ESCOM, Electricity Supply Commission of Malawi; MMP, mobile money provider; MoF, Ministry of Finance, Economic Planning and Development; MRA, Malawi Revenue Authority; NSL, National Switch Limited; P2B, person to business; P2G, person to government; RBM, Reserve Bank of Malawi

# 10

## PROJECT RISK ASSESSMENT

Risk assessment will continuously be monitored and updated throughout the implementation of this roadmap (see table 6), with periodic assessments by the Technical Committee that is leading implementation of the roadmap.

Because mitigation approaches must be agreed upon by the Steering Committee (based on the assessed impact of the risk, the project's ability to accept the risk and the feasibility of mitigating the risk), it is necessary to allocate time into each Steering Committee meeting, dedicated to identifying new risks and discussing mitigation strategies.

Table 6  
Project risk assessment

| Risk/Event   | Likely cause   | Risk level (Impact)<br>L = Low<br>M = Medium<br>H = High | Likelihood      | Mitigation strategy  |
|--|--|--|-----------------|--|
| <b>Project size</b>  |  |  |                 |  |
| Reduced working hours for staff to complete normal business activities | Staff may concentrate on project at expense of regular work                      | H:<br>Over 90 days                                       | <b>Certain</b>  | Requiring project team members to be available for at least half a day for each day of the project period  |
| <b>Project definition</b>  |  |  |                 |  |
| Inadequate knowledge level of users                                    | DFS are new to many stakeholders in GoM  | H  | <b>Likely</b>   | Having Technical Committee arrange training for all key stakeholders<br>Periodically engaging external experts to give support to the local team |
| Unrealistic cost estimates   | Budget may turn out to be unrealistic as a result of inadequate knowledge of DFS | L  | <b>Unlikely</b> | Having a contingency in the project budget and ensuring implementation costs of the various projects are reviewed periodically                   |

| Risk/Event                                       | Likely cause   | Risk level (Impact)<br>L = Low<br>M = Medium<br>H = High | Likelihood | Mitigation strategy   |
|--|--|--|------------|---|
| Unrealistic timeline estimates                   | Objectives may be set within timelines that are unrealistic due to external pressures  | L:<br>Timeline assumes no derailment                     | Unlikely   | Agreeing on timelines that have minimum slack with stakeholders in advance<br>Having Steering and Technical Committees review timelines periodically                                  |
| <b>Governance and project leadership</b>         |  |  |            |   |
| Lack of political will and government commitment | While digitizing payments is important to GoM, project execution will depend on political will on the part of GoM  | H  | Unlikely   | Steering Committee being on the forefront to engage key stakeholders<br>Public Service Reforms Division at OPC holding key stakeholders accountable for delivery of agreed milestones |
| Steering and Technical Committees not convening  | Committee members are often quite busy with other responsibilities and may have other priorities that conflict with meetings   | L  | Unlikely   | Setting and agreeing upon frequency and schedule of meetings and ensuring schedule is followed  |
| Lack of commitment by users and beneficiaries    | Despite efforts made under this project, users and beneficiaries may not be committed to using DFS due to lack of knowledge on benefits and/or myths about DFS               | M  | Likely     | Engaging users not only at full-scale roll-out but at the onset of the project<br>Conducting financial literacy sessions with beneficiaries on DFS usage                              |
| <b>Project staffing</b>                          |  |  |            |   |
| Project staff and consultancy team unavailable   | Staff may not be available for the project due to other engagements  | M  | Likely     | Putting in place a dedicated team of project implementers beyond the Technical Committee  |
| <b>Project management</b>                        |  |  |            |   |
| Methodology used foreign to team                 | Due to advice from various stakeholders, a methodology for project management may be introduced that is not familiar or not in synch with regular implementation of projects | L  | Unlikely   | Using a basic, easy-to-understand, common-sense approach to manage the project<br>Using existing organizational and reporting structure   |
| Change management procedures undefined           | Change may be resisted as a result of DFS getting people out of their comfort zone   | L  | Unlikely   | Using existing change management procedures or developing new ones where existing ones are unavailable  |

| Risk/Event                           | Likely cause  | Risk level (Impact)<br>L = Low<br>M = Medium<br>H = High | Likelihood    | Mitigation strategy   |
|--------------------------------------|---|--|---------------|---|
| <b>Service providers</b>             |   |  |               |   |
| Non-performance of service providers | There are inherent risks in dealing with a third party; GoM must ensure that a tried-and-tested solution is selected, with a track record | <b>H</b>   | <b>Likely</b> | Conducting due diligence on service providers to understand their previous work and how the work was delivered (their track record)                     |
| Legal risks                          | Contract might have clauses that put partners at a disadvantage   | <b>M</b>   | <b>Likely</b> | Having both GoM and service providers carefully scrutinize the contracts that govern the agreement and ensuring that government interests are protected |
| Hidden costs                         | Costs may surface in the course of the project that were not budgeted for at the beginning  | <b>M</b>   | <b>Likely</b> | Requesting service providers' full disclosure   |

Acronyms: DFS, digital financial services; GoM, Government of Malawi

# 11

## DIGITAL FINANCE RELATED RISK ASSESSMENT

Table 7  
Digital finance related risk assessment

| Risk /Event  | Likely cause   | Risk level (Impact)<br>L = Low<br>M = Medium<br>H = High | Likelihood | Mitigation strategy  |
|--|--|--|------------|--|
| <b>Strategic</b><br>Risk to revenue and expenditure<br>Lack of resource commitments  | Providing DFS does not fit into the long-term strategic plan of GoM or is not currently a good fit<br>Competing priorities negatively impact ability to focus on DFS<br>GoM does not fully understand its target market for DFS and does not properly estimate the amount of investment and resources needed | H  | Unlikely   | Putting in place roadmap/strategy for digitization of payments<br>Achieving executive buy-in and political support   |
| <b>Operational</b><br>Risk of direct or indirect loss from failed or inadequate processes, people or systems (including information technology) or exposure to external events   | Systems and technology to provide DFS are not available or there are frequent breakdowns in services<br>Clients cannot access cash or services<br>Provider lacks adequate safeguards to prevent fraud or hacking into system, including identity fraud and theft of customer funds                           | L  | Likely     | Training users<br>Putting in place a good ICT infrastructure<br>Ensuring there is a digitized database for all beneficiaries<br>Having strong internal controls and watertight processes in place                                    |
| <b>Liquidity</b><br>Risk of not having funds to implement the projects<br>Risk of not being able to obtain funds at a reasonable price and in a reasonable time period to ensure financial commitments can be met when due | There may be a lack of funds to implement the projects   | H  | Likely     | Having a budget for roll-out of digitization projects<br>Working with development partners to fund digitization projects<br>Working with service providers that have well-developed agent networks with good liquidity track records |

| Risk /Event  | Likely cause   | Risk level (Impact)<br>L = Low<br>M = Medium<br>H = High | Likelihood | Mitigation strategy  |
|--|--|--|------------|--|
| <b>Country</b><br>Political, exchange rate, and economic risk associated with operating in a given country, including changing economic policy or banking regulations and political unrest | A licence to provide a given service may be changed as a result of government policy<br>Election periods due to civil unrest may cause disruptions<br>Price caps on services can render them uneconomical to provide | M  | Likely     | Continuously monitoring micro- and macro-economic indicators |
| <b>Reputation</b><br>Risk to market value arising from negative public or stakeholder opinions based on business practices, products, services or other areas                              | Activities may negatively impact financial system (e.g., bank failures and widespread fraud)<br>Failure to provide services may impact confidence in organization and client response and retention                  | M  | Unlikely   | Continuously engaging stakeholders                           |
| <b>Market</b><br>Risk of loss resulting from changes in interest rates or foreign exchange/market rates  | Changes in foreign exchange rates could negatively impact international remittance of funds<br>There may be currency re-denomination   | M  | Likely     | Continuously monitoring the market                           |

Acronyms: DFS, digital financial services; ICT, information and communications technology; GoM, Government of Malawi

# 12

## NEXT STEPS TO IMPLEMENT THE ROADMAP

A key next step for successful implementation of this roadmap will be formation of the Steering and Technical Committees.

The main function of the Steering Committee shall be to provide overall leadership and strategic direction in the implementation of the roadmap. The Steering Committee will make all key decisions as well as approve work plans, budgets and investment decisions. The Steering Committee shall be chaired by the Secretary to the Treasury at MoF and shall have the following members (see also figure VIII for the Steering Committee's proposed structure):

- Deputy Governor, Economics, RBM
- President, Bankers Association of Malawi
- Director General, MACRA
- Accountant General, MoF
- Principal Secretary, Ministry of Information, Communications Technology and Civic Education
- Chief Director, Public Service Reforms, OPC

An inclusive Technical Committee on digitization shall be chaired by the Director, Pension and Financial Sector Policy Division at MoF. The function of the Technical Committee shall include implementing the roadmap, developing work plans and budgets, recommending investments and preparing progress reports. The Technical Committee shall, if deemed necessary, propose the establishment of sub-committees for approval by the Steering Committee. It shall have the following members (see also figure IX for the Technical Committee's proposed structure):

- Director, NPS Department, RBM
- Assistant Accountant General, MoF
- Executive Director, Bankers Association of Malawi
- Commissioner General, MRA
- Director, Public Service Reforms, Office of the President and Cabinet
- Director, E-Government, Ministry of Information, Communications Technology and Civic Education
- CEO, NSL
- Representative, DFS Coordinating Group<sup>21</sup>
- Director, National Registration Bureau
- Director General, MACRA

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<sup>21</sup> DFS Coordinating Group membership includes MoF, developmental partners (FHI360 and UNCDF), banks, MNOs, RBM, Malawi Posts Corporation, Bankers Association of Malawi and Malawi Microfinance Network.

These two committees shall oversee and spearhead the implementation of this roadmap including resource mobilization and approval of proposed projects. The Technical Committee shall report to the Steering Committee. MoF through the Pension and Financial Sector Policy Division shall be secretariat to both the Steering and Technical Committees and will facilitate development of terms of reference that shall further elaborate functions of these two committees.

Figure VIII  
**Proposed organigram for Steering Committee**



Acronyms: BAM, Bankers Association of Malawi; ICT, information and communications technology; MACRA, Malawi Communications Regulatory Authority; MoF, Ministry of Finance, Economic Planning and Development; RBM, Reserve Bank of Malawi

Figure IX  
**Proposed organigram for Technical Committee**



Acronyms: BAM, Bankers Association of Malawi; CEO, Chief Executive Officer; DFS, digital financial services; ICT, information and communications technology; NPS, National Payments System; MACRA, Malawi Communications Regulatory Authority; MoF, Ministry of Finance, Economic Planning and Development; MRA, Malawi Revenue Authority; NRB, National Registration Bureau; NSL, National Switch Limited; RBM, Reserve Bank of Malawi

It is important to note that many payment streams would be implemented through GoM, making such payments mandatory. Making payment of civil servant salaries through bank accounts mandatory is a case in point.

# ANNEXES

# ANNEX 1

## Annex 1: About United Nations Capital Development Fund, Mobile Money for the Poor and Better Than Cash Alliance

### UNITED NATIONS CAPITAL DEVELOPMENT FUND (UNCDF)

UNCDF is the UN's capital investment agency for the world's 48 least developed countries (LDCs). With its capital mandate and instruments, UNCDF offers 'last mile' finance models that unlock public and private resources, especially at the domestic level, to reduce poverty and support local economic development. This last mile is where available resources for development are scarcest; where market failures are most pronounced; and where benefits from national growth tend to leave people excluded.

UNCDF's financing models work through two channels: savings-led **financial inclusion** that expands the opportunities for individuals, households, and small businesses to participate in the local economy, providing them with the tools they need to climb out of poverty and manage their financial lives; and by showing how **localized investments**—through fiscal decentralization, innovative municipal finance, and structured project finance—can drive public and private funding that underpins local economic expansion and sustainable development. UNCDF financing models are applied in thematic areas where addressing barriers to finance at the local level can have a transformational effect for poor and excluded people and communities.

### MOBILE MONEY FOR THE POOR (MM4P)

MM4P is a programme launched by UNCDF in partnership with the Swedish International Development Agency (Sida), the Australian Department of Foreign Affairs and Trade (DFAT), the Bill & Melinda Gates Foundation and The MasterCard Foundation. MM4P provides support to branchless and mobile financial services in a select group of LDCs to demonstrate how the correct mix of financial, technical and policy support can build a robust branchless and mobile financial services ecosystem that reaches low income people in LDCs.

### BETTER THAN CASH ALLIANCE (BTCA)

The Better Than Cash Alliance is an alliance of governments, private sector and development organizations committed to accelerating the shift from cash to electronic payments. Billions of dollars in cash payments are made daily in emerging and developing economies, including payment of salaries, social welfare and relief, payments to suppliers, etc. The problems with these cash payments include a lack of transparency, accountability and security, as well as inefficiency. Furthermore, the individuals who receive the cash are excluded from the formal financial sector. There were approximately 2.5 billion people excluded from the formal financial sector in 2012.

Shifting these payments from cash to electronic has the potential to improve the livelihoods of low-income people by advancing financial inclusion and enabling people to save, while giving governments, the development community and the private sector a more efficient, transparent and often safer means of disbursing payments

The Better Than Cash Alliance seeks to leverage the leadership of governments, the networks of development organizations and the expertise of the private sector in payment technologies to replace the use of cash in their programming and payment streams with electronic payments, where appropriate. It also seeks to build the financial capability of low-income clients who will benefit from electronic payments and a wider range of financial services.

Malawi became a member of BTCA in June 2013. The Better Than Cash Alliance published a Country Diagnostic report for Malawi in February 2015, measured the state of the transition to electronic payments by estimating volumes and values of payments made in Malawi, as well as assessed the likelihood of further movement by looking at payment use cases associated with each key shift.

UNCDF through its global thematic programmes MM4P and BTCA is providing technical assistance on the transition of GoM from cash to electronic.

# ANNEX 2

## Annex 2: List of acronyms

|                  |   |
|------------------|---|
| <b>ACH</b>       | automated clearing house                                    |
| <b>ATM</b>       | automated teller machine                                    |
| <b>ATS</b>       | automated transfer system                                   |
| <b>B2B</b>       | business to business  |
| <b>B2G</b>       | business to government                                      |
| <b>B2P</b>       | business to person  |
| <b>BTCA</b>      | Better Than Cash Alliance                                   |
| <b>COMESA</b>    | Common Market for Eastern and Southern Africa               |
| <b>CSD</b>       | central securities depository                               |
| <b>D2B</b>       | development organization to business                        |
| <b>D2G</b>       | development organization to government                      |
| <b>D2P</b>       | development organization to person                          |
| <b>DFS</b>       | digital finance service(s)                                  |
| <b>ECCH</b>      | electronic cheque clearing house                            |
| <b>EFT</b>       | electronic fund transfer                                    |
| <b>ESCOM</b>     | Electricity Supply Commission of Malawi                     |
| <b>FSTAP</b>     | Financial Sector Technical Assistance Project               |
| <b>G2B</b>       | government to business                                      |
| <b>G2G</b>       | government to government                                    |
| <b>G2P</b>       | government to person  |
| <b>GoM</b>       | Government of Malawi  |
| <b>ICT</b>       | information and communications technology                   |
| <b>IFMIS</b>     | Integrated Financial Management Information Systems         |
| <b>KPI</b>       | key performance indicator                                   |
| <b>KYC</b>       | know your customer  |
| <b>MACRA</b>     | Malawi Communications Regulatory Authority                  |
| <b>Malswitch</b> | Malawi Switch Centre  |
| <b>MIS</b>       | management information system                               |
| <b>MFI</b>       | microfinance institution                                    |
| <b>MITASS</b>    | Malawi Interbank Transfer and Settlement System             |
| <b>MK</b>        | Malawi kwacha   |
| <b>MM4P</b>      | Mobile Money for the Poor                                   |
| <b>MMP</b>       | mobile money provider                                       |
| <b>MNO</b>       | mobile network operator                                     |
| <b>MoF</b>       | Ministry of Finance, Economic Planning and Development      |
| <b>MoGCDSW</b>   | Ministry of Gender, Children, Disability and Social Welfare |

|               |   |
|---------------|---|
| <b>MoLGRD</b> | Ministry of Local Government and Rural Development    |
| <b>MRA</b>    | Malawi Revenue Authority                              |
| <b>NGO</b>    | non-governmental organization                         |
| <b>NPS</b>    | National Payments System                              |
| <b>NSL</b>    | National Switch Limited                               |
| <b>OPC</b>    | <b>Office of the President and Cabinet</b>            |
| <b>P2B</b>    | person to business                                    |
| <b>P2G</b>    | person to government                                  |
| <b>P2P</b>    | person to person                                      |
| <b>POS</b>    | point of sale   |
| <b>PRN</b>    | payment reference number                              |
| <b>RBM</b>    | Reserve Bank of Malawi                                |
| <b>REPSS</b>  | Regional Payment and Settlement System                |
| <b>RTGS</b>   | real-time gross settlement                            |
| <b>SADC</b>   | Southern African Development Community                |
| <b>SIRESS</b> | SADC Integrated Regional Electronic Settlement System |
| <b>TNM</b>    | Telekom Networks Malawi                               |
| <b>UNCDF</b>  | United Nations Capital Development Fund               |
| <b>US\$</b>   | United States dollar                                  |
| <b>USAID</b>  | United States Agency for International Development    |
| <b>USSD</b>   | unstructured supplementary service data               |

# ANNEX 3

## Annex 3: List of stakeholders consulted

|    | Institution                                     | Official           | Position   |
|----|---|--------------------|--|
| 1  | Aids Malawi                                     | Thomas Nyirenda    | Coordinator                                      |
| 2  | Airtel  | Bigboy Makoloma    | Operations and Project Manager of Airtel Money   |
| 3  | Airtel  | Chris Sukasuka     | Retail Manager of Airtel Money                   |
| 4  | Airtel  | Francis Matseketsa | Country Director of Airtel Money                 |
| 5  | CSO Health                                      | Godfrey Banda      | Administrator                                    |
| 6  | Department of E-Government                      | Kettie Mughogho    | Principal Systems Analyst                        |
| 7  | Department of E-Government                      | Victor Malewa      | Deputy Director                                  |
| 8  | Electricity Supply Commission of Malawi (ESCOM) | Wense Chigwenembe  | Chief Revenue Accountant – South                 |
| 9  | Farmers World                                   | Angel Chirwa       | Information Technology Manager                   |
| 10 | Farmers World                                   | Emmy Sonal         | Operations Manager                               |
| 11 | FDH Bank  | Alvin Alfonso      | Chief Information Officer                        |
| 12 | FDH Bank and Malawi Savings Bank                | Felizarda Mbewe    | Alternate Channels Manager                       |
| 13 | FDH Bank and Malawi Savings Bank                | Hannock Ng'oma     | Relationship Manager                             |
| 14 | FDH Bank and Malawi Savings Bank                | Henry Najira       | Senior Manager of Transactional Banking Business |
| 15 | FDH Bank and Malawi Savings Bank                | Victoria Munthali  | Products Manager                                 |
| 16 | FHI360  | Kilyelyani Kanjo   | Chief of Party                                   |
| 17 | FHI360  | McHenry Makwereo   | Deputy Chief of Party                            |
| 18 | FINCA International                             | Chris Kiza         | Malawi Chief Executive Officer                   |
| 19 | FINCA International                             | Genevieve Juillard | Malawi Chief Operating Officer                   |

|    | Institution   | Official             | Position   |
|----|---|----------------------|--|
| 20 | FinMark Trust   | Innocent Njati Banda | Consultant   |
| 21 | First Merchant Bank                                       | Mwayi Kamwendo       | Relationship Manager of Government and Parastatals |
| 22 | Gesellschaft für Internationale Zusammenarbeit (GIZ)      | Katharina Fezdmann   | Development Advisor                                |
| 23 | Gesellschaft für Internationale Zusammenarbeit (GIZ)      | Thom Mtenje          | Senior Technical Officer                           |
| 24 | Gesellschaft für Internationale Zusammenarbeit (GIZ)      | McNeil Mhango        | Technical Officer                                  |
| 25 | Lilongwe Water Board                                      | Kelvin Lichapa       | Revenue Accountant                                 |
| 26 | Malawi Communications Regulatory Authority (MACRA)        | Andrew Nyirenda      | Economic Regulations Manager                       |
| 27 | Malawi Communications Regulatory Authority (MACRA)        | Dan Chiumia          | Deputy Director of Legal Affairs                   |
| 28 | Malawi Communications Regulatory Authority (MACRA)        | Elvin Mwapasa        | Deputy Director of Finance                         |
| 29 | Malawi Communications Regulatory Authority (MACRA)        | Emily Lungu          | Deputy Director of ICT Development                 |
| 30 | Malawi Communications Regulatory Authority (MACRA)        | Henry Silika         | Deputy Director of Technology and Standards        |
| 31 | Malawi Communications Regulatory Authority (MACRA)        | Lloyd Momba          | Director of Telecommunications                     |
| 32 | Malawi Communications Regulatory Authority (MACRA)        | Thokozani Chimbe     | Deputy Director of Consumer Affairs                |
| 33 | Malawi Microfinance Network                               | Duncan Phulusa       | Executive Director                                 |
| 34 | Malawi Posts Corporation                                  | Andrew Kumbatira     | Postmaster General                                 |
| 35 | Malawi Posts Corporation                                  | Thomas Kachali       | Regional Manager                                   |
| 36 | Malawi Revenue Authority (MRA)                            | Bose Kamphulusa      | Finance Manager                                    |
| 37 | Malawi Revenue Authority (MRA)                            | Max Mlomba           | Director of ICT                                    |
| 38 | Malawi Revenue Authority (MRA)                            | Michael Chiwaka      | System Development Manager                         |
| 39 | Malawi Revenue Authority (MRA)                            | Mufolo Chikaoneka    | Chief Accountant                                   |
| 40 | Malawi Revenue Authority (MRA)                            | Noel Longwe          | Payroll and Financial Accountant                   |
| 41 | Malawi Revenue Authority (MRA)                            | Timothy Makamba      | Director of Policy Planning and Research           |
| 42 | MalCOM Limited  | Chris Kanyuka        | Chief Executive Officer                            |
| 43 | Ministry of Agriculture, Irrigation and Water Development | Chimwemwe Khoswe     | Economist  |

|    | Institution  | Official            | Position  |
|----|--|---------------------|---|
| 44 | Ministry of Education, Science and Technology  | Dalitso Chabwera    | Principal Statistician  |
| 45 | Ministry of Finance, Economic Planning and Development (MoF)   | Harry Mwamlima      | Director of Social Protection                                 |
| 46 | Ministry of Finance, Economic Planning and Development (MoF) – Accountant General                              | Erick Chiwala Banda | Accountant  |
| 47 | Ministry of Finance, Economic Planning and Development (MoF) – Accountant General                              | P. Mambelera        | Accountant  |
| 48 | Ministry of Finance, Economic Planning and Development (MoF) – Accountant General                              | Patrick Chidothe    | Programmer  |
| 49 | Ministry of Finance, Economic Planning and Development (MoF) – Accountant General                              | Sungani Mandala     | Manager of Integrated Financial Management Information System |
| 50 | Ministry of Finance, Economic Planning and Development (MoF) – Accountant General                              | William Matambo     | Accountant General  |
| 51 | Ministry of Finance, Economic Planning and Development (MoF) – Pensions and Financial Sector Policy            | Ambrose Mzoma       | Director  |
| 52 | Ministry of Finance, Economic Planning and Development (MoF) – Pensions and Financial Sector Policy            | Elijah Nyirenda     | Senior Economist  |
| 53 | Ministry of Finance, Economic Planning and Development (MoF) – Pensions and Financial Sector Policy            | Felix Nkhoma        | Economist   |
| 54 | Ministry of Finance, Economic Planning and Development (MoF) – Pensions and Financial Sector Policy            | Golden Nyasulu      | Principal Economist   |
| 55 | Ministry of Finance, Economic Planning and Development (MoF) – Pensions and Financial Sector Policy            | Mada Mandiwa        | Chief Economist   |
| 56 | Ministry of Finance, Economic Planning and Development (MoF) – Revenue Policy Division                         | Frank Kaphamtengo   | Revenue Economist   |
| 57 | Ministry of Finance, Economic Planning and Development (MoF) – Department of Economic Planning and Development | Peter Mwale         | Economist   |
| 58 | Ministry of Gender, Children, Disability and Community Services (MoGCDSW)                                      | Ammerel Mmedi       | Economist   |
| 59 | Ministry of Gender, Children, Disability and Community Services (MoGCDSW)                                      | Happiness Liwonga   | Accountant  |

|    | Institution   | Official             | Position                                       |
|----|---|----------------------|--|
| 60 | Ministry of Gender, Children, Disability and Community Services (MoGCDSW) | Innocent Phiri       | Principal Social Support Services Officer      |
| 61 | Ministry of Gender, Children, Disability and Social Welfare (MoGCDSW)     | Charles Chabuka      | Director                                       |
| 62 | Ministry of Gender, Children, Disability and Social Welfare (MoGCDSW)     | Gershom Chima        | Principal Accountant                           |
| 63 | Ministry of Gender, Children, Disability and Social Welfare (MoGCDSW)     | Michael Jere         | Financial Management Specialist                |
| 64 | Ministry of Information, Communications Technology and Civic Education    | Apronea Ng'oma       | Under Secretary                                |
| 65 | Ministry of Local Government and Rural Development (MoLGRD)               | Francis Zhuwao       | Director of Policy and Planning                |
| 66 | Ministry of Local Government and Rural Development (MoLGRD)               | Masida Gondwe        | Economist                                      |
| 67 | Ministry of Local Government and Rural Development (MoLGRD)               | Moses Zuze           | Economist                                      |
| 68 | Ministry of Local Government and Rural Development (MoLGRD)               | Prisca Kanjere       | Principal Economist                            |
| 69 | Ministry of Local Government and Rural Development (MoLGRD)               | Walusungu Kayira     | Deputy Director of Policy and Planning         |
| 70 | National Bank of Malawi   | William Kaunda       | Head of Cards and E-Banking                    |
| 71 | National Local Government Finance Committee                               | Ephraim Chiunjiza    | Assistant Accountant                           |
| 72 | National Registration Bureau (NRB)  | Esther Kondowe       | Chief Registrations Officer (Identification)   |
| 73 | National Switch Limited (NSL)   | Gertrude Kadumbo     | Project Manager                                |
| 74 | National Switch Limited (NSL)   | Kennedy Chande       | Technical Administrator                        |
| 75 | National Switch Limited (NSL)   | Kennedy Magaleta     | Product Manager                                |
| 76 | NBS Bank  | Dean Nyirenda        | Senior Manager of Alternative Deliver Channels |
| 77 | NBS Bank  | Ntaja Ntanda         | Alternative Delivery Channels Manager          |
| 78 | NBS Bank  | Steven Perete        | Systems Development Manager                    |
| 79 | New Finance Bank  | Gilford Kadzakumanja | Deputy Chief Executive Officer                 |
| 80 | Opportunity International Bank of Malawi                                  | Jonathan Cato        | Chief Operating Officer                        |

|     | Institution  | Official               | Position  |
|-----|--|------------------------|---|
| 81  | Opportunity International Bank of Malawi                   | Lumbani Manda          | Automated Channels Manager  |
| 82  | Opportunity International Bank of Malawi                   | Mphatso Liabuba        | Change Manager  |
| 83  | Reserve Bank of Malawi (RBM)                               | Daud Mtanthiko         | Principal Examiner, Non-Deposit-Taking Microfinance Institutions  |
| 84  | Reserve Bank of Malawi (RBM)                               | Frazer Mdwazika        | Director, National Payments System                                |
| 85  | Reserve Bank of Malawi (RBM)                               | Genard Yotamu          | Analyst, National Payments Systems Oversight                      |
| 86  | Reserve Bank of Malawi (RBM)                               | Hastings Mzoma         | Director, Microfinance and Capital Markets Supervision Department |
| 87  | Reserve Bank of Malawi (RBM)                               | Henz Munthali          | Principal Examiner, Policy and Regulation, Bank Supervision       |
| 88  | Reserve Bank of Malawi (RBM)                               | Lanjesi Sinoya         | Chief Examiner, Consumer Protection and Financial Literacy        |
| 89  | Reserve Bank of Malawi (RBM)                               | Osky Sichinga          | Manager, Policy and Projects                                      |
| 90  | Reserve Bank of Malawi (RBM)                               | Patrick Ibrahim        | Specialist, National Payments System                              |
| 91  | Reserve Bank of Malawi (RBM)                               | Paxon Kaude            | Payment Systems Analyst   |
| 92  | Standard Bank  | Andrew Mashanda        | Chief Executive Officer   |
| 93  | Telekom Networks Malawi (TNM)                              | Chikhulupiliro Mphatso | Head of Mobile Money  |
| 94  | Telekom Networks Malawi (TNM)                              | Danny Malister         | Head of Region  |
| 95  | Telekom Networks Malawi (TNM)                              | Earnest Kalomba        | Business Development Manager                                      |
| 96  | Telekom Networks Malawi (TNM)                              | Reuben Kochelani       | Agent Management Manager  |
| 97  | Telekom Networks Malawi (TNM)                              | Subilanga Jana         | Mobile Money Supervisor   |
| 98  | United Nations Children's Fund (UNICEF)                    | Lisa-Marie Ouedraogo   | Social Protection Specialist                                      |
| 99  | United Nations Children's Fund (UNICEF)                    | Sophie Shawa           | Social Policy Specialist  |
| 100 | United Nations Development Programme (UNDP)                | Carol Flore-Smrecznik  | Deputy Resident Representative                                    |
| 101 | United Nations Development Programme (UNDP)                | Mark Mehrlaender       | Programme Analyst for Private Sector Development                  |
| 102 | United Nations Development Programme (UNDP)                | Titus Kavalo           | Programme Analyst   |
| 103 | United States Agency for International Development (USAID) | Chris Chibwana         | Private Sector Specialist   |

|     | Institution | Official         | Position  |
|-----|-------------|------------------|---|
| 104 | Zoona       | Alex Chipaliwali | Brand and Service Manager                           |
| 105 | Zoona       | Jared Worley     | Country Manager                                     |
| 106 | Zoona       | Patrick Mbituka  | Country Operations Manager                          |
| 107 | Zoona       | Rosina Mahlangu  | Anti-Money Laundering and Cash Liquidity Specialist |

# ANNEX 4

## Annex 4: Graphs on performance of digital channels

Figure 5.1  
Mobile payments



Figure 5.2  
Bank-led mobile payments

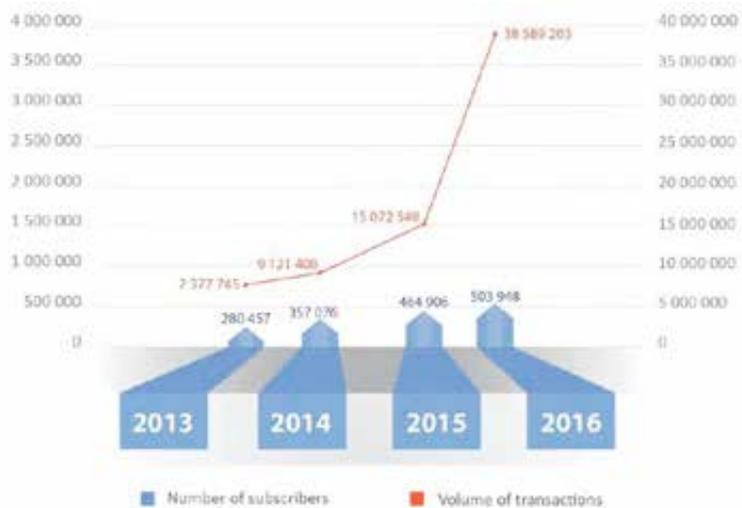


Figure 5.3  
Automated teller machines



Figure 5.4  
Point-of-sale devices





**March 2017**

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