



Development Results
Focused Research Program

Country Diagnostic: Malawi

By Bankable Frontier Associates (BFA) under the supervision of Jamie Zimmerman



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This diagnostic measures the current state of the transition to electronic payments by estimating volumes and values of payments made in Malawi, as well as assessing the likelihood of further movement by looking at payment use cases associated with each key shift. In so doing, the diagnostic also identifies specific examples of attempts to shift to electronic payments that could generate lessons for BTCA stakeholders in other contexts. It also identifies gaps in the available data — the filling of which could give valuable insights for designing and monitoring further efforts to shift.

INTRODUCTION TO THE BETTER THAN CASH ALLIANCE

The Better Than Cash Alliance (BTCA) is an alliance of governments and private sector and development organizations committed to replacing the use of cash payments with electronic payments, where appropriate, and to promoting a 'cash-lite' economy.

Shifting payment of salaries, social welfare and relief payments, payments to suppliers, remittances, etc. from cash to electronic has the potential to improve the lives of low-income people, particularly women, while giving governments, the private sector and the development community a more transparent, time- and cost-efficient, and often safer means of making and receiving payments.

The Better Than Cash Alliance:

1. Advocates for the use of all forms of electronic payments where they provide a preferable payment option to cash;
2. Collaborates with program partners to mobilize available technical expertise and resources to identify and implement the most effective approach to make the transition from cash to electronic payments; and
3. Conducts research, documents good practices, and produces knowledge products to address the barriers to adoption and drive the effective shift from cash to electronic payments globally.

BTCA's Development Results Focused Research Programme (DRFRP) accelerates the generation and dissemination of knowledge and tools for stakeholders transitioning part of their payments from cash to electronic. The DRFRP has three components: 1) Readiness diagnostics, which compile existing data on the volumes, values, and payment means for each kind of payment made by governments, the private sector, and development community partners, and assess the country's readiness to replace cash payments with electronic payments; 2) Case studies of on-going shifts; and 3) Toolkits to provide practical steps for BTCA stakeholders to plan, measure and implement shifts.

The DRFRP is managed, on behalf of BTCA, by a consortium led by Bankable Frontier Associates, a Boston-based consulting firm, with advice from experts from the World Bank Payments Group and the CGAP Technology Team, as well as local research staff.

MALAWI PROJECT TEAM

The diagnostic process involves desk research and an in-country mission by a team of experts to gather data, assess the incentives of participants in the local payments context, and survey the insights of local BTCA champions and stakeholders. Each diagnostic country team includes local researchers with experience in the payments system and knowledge of relevant institutions and individuals.

THIS REPORT WAS AUTHORED BY THE MALAWI COUNTRY PROJECT TEAM

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BTCA vital signs

Total # of payments
per month

221.5 million

% payments electronic
(by volume; by value)

0.3%

25%

Data Quality Index
(Scale of 5=highest; 1=lowest)

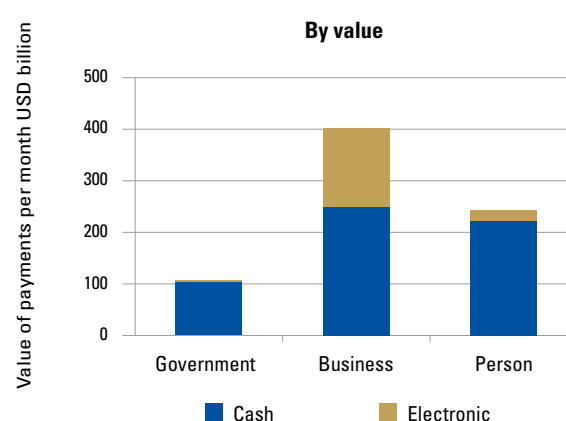
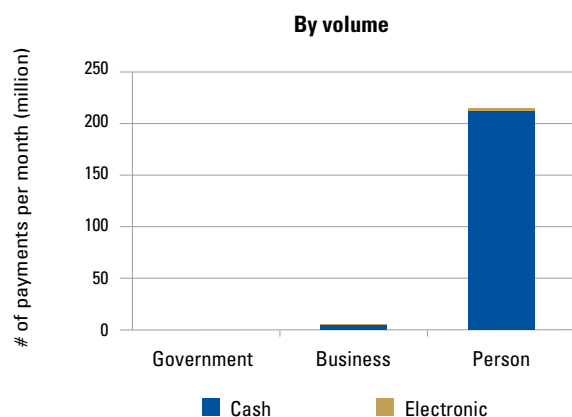
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Context indicators

Population (World Bank, 2012)	15.9 million	Visa GEAR ranking (0-100)	Not included
World Bank income category	Lower Income	Corruption Perceptions Index (Transparency International, 2012)	Rank: 88/174
% adults with formal account (Findex, 2011)	17%	Mobile penetration - % of active mobile subscribers out of population (ITU 2012)	2003: 1% 2011: 26%

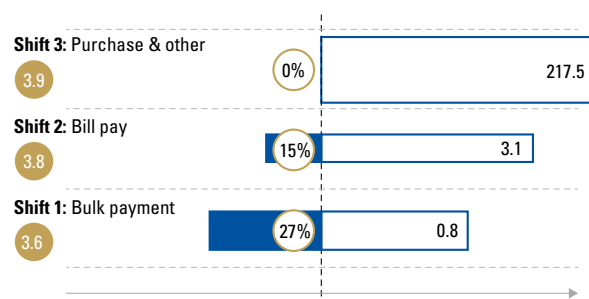
State of the transition to electronic payments

Payments by payer per month



Government and individual payments are made almost entirely in cash or checks. Business payments have shown the most marked transition to electronic means, though these represent a tiny percentage of payments in the country by volume.

Trajectories of the shift to electronic payments



The shift to a mainly electronic ('cash-lite') economy typically proceeds through three stages, which can happen concurrently but at different speeds. In Malawi, the **first shift**, of one-to-many (bulk) payments, has yet to progress significantly, due to the persistence of checks for salary payments and all government payments. The **second shift**, many-to-one (remote bill) payments, is progressing for high value pension and insurance contributions and loan repayments, but not yet for taxes or supplier payments. The **third shift**, one-to-one, including purchases (P2B), has made little progress in either the formal or informal sector and momentum is limited.

Legend: 3.8 is the trajectory score for the use case connected to each shift; where 1=full shift very likely; 3=slow upward progress; 5=shift unlikely; see Annex C & D.

Note: 15% is % of total number; in millions, of monthly payments in each shift (shown at end of bar) which are electronic as in 2012; see Annex B.

TABLE OF CONTENTS

I	INTRODUCTION	1
	The BTCA diagnostic approach	1
	Key findings: Malawi	4
	Outline of this report.....	6
II	COUNTRY CONTEXT	7
	Limited financial inclusion, high rural population and poverty rates.....	7
	Electronic payments show some growth, but values are low and usage is concentrated in banked population	10
III	EVOLUTION OF POLICY TOWARD ELECTRONIC PAYMENTS	17
	E-payments policy and infrastructure driven by the RBM and MoF.....	17
	Major payment system improvements starting in 2002.....	18
	Financial inclusion strategy aligns with the payments vision.....	19
	As a payer, GoM's ability to shift has been weak.....	20
	Recent policy emphasis on mobile, driven by donors.....	21
	Payments system milestones	24
IV	CURRENT STATE OF TRANSITION TO E-PAYMENTS.....	25
	Headline indicators.....	25
	Data Quality Index.....	25
	Payments data by payer and payee	26
V	TRAJECTORY OF SHIFT: PAYMENT INFRASTRUCTURE AND INCENTIVES.....	29
	Relevant use cases	29
	Use case A: Mass electronic credits.....	32
	Use case B: Remote bill and services payments.....	34
	Use case C: Debit Card at Merchant.....	35
VI	LESSONS ABOUT SEQUENCING AND PRIORITIZING THE SHIFT	37
	Status of the journey	37
	Inaction on government payments inhibiting Shift 1	38
	Donor-driven efforts attempting to leap-frog Shift 1.....	38
	Cost, confidence and access limitations inhibit individual uptake	39
VII	PROPOSED DRFRP APPROACH IN MALAWI IN 2013/4.....	41
	Potential case studies	41
	Annexes.....	45
	ANNEX A: LIST OF ACRONYMS.....	39
	ANNEX B: DETAILED PAYMENT GRID	46
	ANNEX C: BTCA COUNTRY DIAGNOSTIC COMMON METHODOLOGY	52
	ANNEX D: USE CASE TRAJECTORY SCORES.....	55
	ANNEX E: SUPPORTING ANALYSIS FOR SECTION V: PAYMENTS INFRASTRUCTURE AND PROPENSITY TO SHIFT.....	57
	ANNEX F: REFERENCES	63
	ANNEX G: ORGANIZATIONS AND INDIVIDUALS INTERVIEWED	65



1 Introduction

The BTCA diagnostic approach

The BTCA Country Diagnostic is intended to do three things:

1. Measure the baseline state of the shift from cash to electronic payments using the best available data;
2. Assess the trajectory of the shift in a way that can inform the country's decisions and priorities; and
3. Recommend case studies and measurement activities to support the development of toolkits for BTCA stakeholders.

These three objectives are achieved in the following ways:

- **Measurement:** The payment grid (shown in Figure 1 below) compiles data on the volumes and values of payments in the country, as well as the proportion of those payments made by electronic means, for payments made by government (G), business (B), individuals (P, for person), and the development community (D). The full grid and accompanying notes on sources and calculations are in an annex to the diagnostic. That annex also includes a description of

FIGURE 1 The payment grid: types of payments by payer and payee¹

PAYER	PAYEE		
	Government	Business	Person (Individual)
	G2G Central government disbursements to local level, Transfers within the central government	G2B Supplier payments, Utility payments	G2P Welfare programs, Salaries, Pensions
	B2G Taxes, Fees for licenses and permits, Payments to gov't utilities	B2B Supplier payments, Utility payments, Pension contributions	B2P Salaries and benefits
	P2G Taxes, Utilities, Debit card payment of taxes, Payments to gov't utilities	P2B Utilities, School fees, Credit card payments, Pension contributions, Debit card payment at stores	P2P Remittances, Gifts
Development community	D2G Taxes ²	D2B Utility payments	D2P Cash transfers, Salaries for local employees

the Data Quality Index, which rates the quality (completeness and reliability) and availability of payments data in the country. The measurement section in the body of the diagnostic (Section IV) presents the headline findings on the remaining pools of cash in the economy.

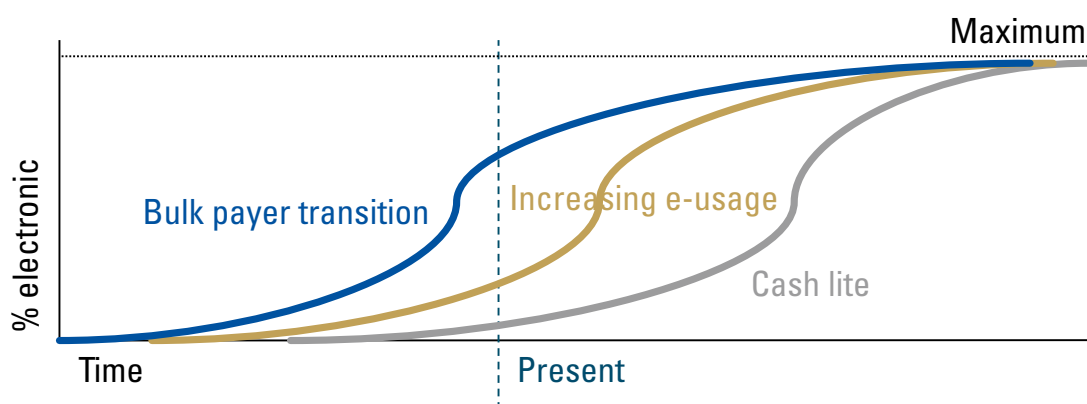
- **Trajectory towards e-payments:**

These sections provide a narrative of the evolution of policy on electronic payments (Section III) and the trajectory of the shift towards electronic means (Section V), through the lens of three particular use cases. A payment use case is an application of a certain type of payment instrument, using certain channels, to certain payment accounts. If the policy priorities, infrastructure and

market incentives are aligned in regard to a given use case, then shifting to greater use of electronic payments should be easier to accomplish.

The BTCA whitepaper identified three shifts on the journey to ‘cash lite’ societies: a bulk payer shift, a shift towards electronic bill payment and finally, a shift for purchases. Figure 2 below stylizes how a country might progress through these shifts; the shifts are not usually sequential, hence at a given time (such as the present depicted by a line), multiple shifts are likely to be underway simultaneously, although at different stages.

FIGURE 2 Shifts between stages from cash heavy to cash lite



Two use cases are common across all the diagnostics: bulk EFT credits and remote bill payments. The first use case supports the shift between the first and second stages; the second use case supports the shift between the second and third stages. In each country a third use case is chosen for analysis that captures the story of the barriers to shifting the cash pools identified in the payment grid. In Malawi, interviews with providers and users revealed major barriers to the adoption of card payments at merchants.

Figure 3 below shows the relationship between the payment grid and the use cases.

- **BTCA cases:** Finally, each diagnostic recommends possible case studies of *actual shifts* implemented by the core BTCA stakeholder groups (governments, the private sector, the development community) each of the core BTCA stakeholders. Case studies document what happened, assess the costs and benefits, and draw lessons for the targeted BTCA constituency for BTCA. The recommended cases (Section VII) are based on the potential learning experience for BTCA, the feasibility of conducting the case study, and fit with use cases of particular importance for the given country.

FIGURE 3 Mapping use cases into the payment grid

		PAYEE		
		G	B	P
PAYER	G		1: Bulk electronic credit 2: Remote bill payment	1: Bulk electronic credit
	B	2: Remote bill payment	2: Remote bill payment	1: Bulk electronic credit
	P	2: Remote bill payment	2: Remote bill payment 3: Debit card payment at merchants	
	D		2: Remote bill payment	

Note: 1: Mass electronic credit (or mass bulk payments); 2: Remote bill payment (or bulk payment collection);
3: Debit card payments at merchant (retail card purchases).

As Figure 4 below shows, Section IV of this country diagnostic report locates the current status of country along this continuum, and Section V analyzes potential future trajectories based on underlying incentives to provide or adopt relevant payment instruments. Section III traces the evolution of the shift to electronic payments while the cases identified in Section VII highlight specific past attempts — successful or not — to shift.

Key findings: Malawi

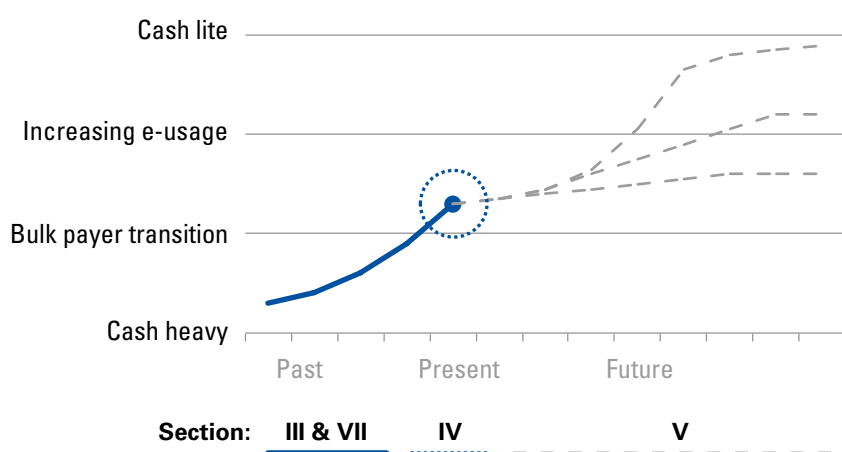
Malawi is in the very early stages of its shift to cash lite. Cash currently dominates in Malawi and data do not indicate a notable shift toward electronic payments in the country. Just 0.3% of the 221.5 million payments made every month are through electronic means. Individuals and businesses initiate the majority of

payment volumes (99.8%) and are overwhelmingly cash-heavy (only 0.2% electronic for individuals and 3.6% for businesses).

This may not be entirely surprising given the country's high poverty rates, its largely rural population and low access to formal financial services (currently only 17% of adult Malawians have an account at a formal financial institution).

Nevertheless, the Government of Malawi has made steady progress on the development of its payments system infrastructure, particularly over the last 10 years, with a long list of accomplishments. However, some of its landmark initiatives (such as the Malawi Switch Centre, (MALSWITCH), and the government's central payments system, the Integrated Financial Management Information System, (IFMIS) have had limited traction to date and important legislation, namely the National Payments System Bill, has been pending since 2002. The political will exhibited by the Reserve Bank of Malawi (RBM) and the Ministry of Finance (MoF) on facilitating electronic payments has been exemplary but has been overshadowed by the government's behavior as a payer: the Government of Malawi continues to rely on checks. The weakness of this check-based central payment system was exploited during a 2013 corruption scandal, known as "Cashgate," in which fraudulent government checks were being issued by a few government employees and their collaborators.³

FIGURE 4 Relation of diagnostic sections to the journey to greater electronic payment



Note: Dotted line around marker for Section IV represents the Data Quality Index.

Electronic payments initiated by or paid to business, while still low in absolute terms, appear to dominate the e-payment landscape in Malawi at the moment. This is a result of infrastructure that allows for electronic payments at the high end — particularly for payment of corporates' suppliers and creditors, and for individual insurance and pension contributions (using debit orders). However, while the percentage of business-initiated electronic payments is relatively high in terms of value (38%), the volume of such payments as a percentage of total payments extremely low (only 4%). Furthermore, data reveal very little P2P electronic payments occurring in terms of either volume or value. There are clear roadblocks and disincentives to shifting to electronic payments at present, and no particular payer in this study exhibited a notable propensity to shift.⁴

At the same time, the RBM has been forward-looking in its approach to its National Payments System: with

resources from the World Bank's Financial Sector Technical Assistance Program (FSTAP), the country is building a new national switch, which should be fully interoperable (including both financial institutions and telcos) and launched in early- to mid-2014. This switch could dramatically alter the payments landscape by offering more efficient and reliable opportunities for e-payments, particularly for card-holding consumers at merchants. The FSTAP project is also providing support to strengthen the Ministry of Finance and encourage coordination among payment system-related stakeholders.

As mobile network penetration has increased from 1% in 2003 to 34% in 2013⁵ mobile money has also advanced over the last several years, particularly since Airtel Money launched in early 2012 (though not as quickly as some had hoped or expected). Mobile money is gathering steam now that a second mobile network operator, TNM, has launched its mobile money product.

The percentage of business-initiated electronic payments is relatively high in terms of value (38%), the volume of such payments as a percentage of total payments extremely low (only 4%).

Finally, development partners, particularly donors, are particularly eager to support the advancement of the mobile money sector for both G2P and D2P payments, as well as P2P mobile money transfers and other services, such as loan deployment and repayment. While the government lags behind in its shift to bulk payments into accounts (Shift 1), donors are driving efforts to leapfrog straight into Shifts 2 and 3: as indicated through initiatives aimed at driving up mobile money demand and usage among and between people and businesses (such as the USAID's Mobile Money Accelerator Program, the (MMAP-related) Mobile Money Coordinating Group, and UNCDF's Mobile Money for the Poor project), as well as other initiatives to use mobile money for D2P social transfers. Investment, coordination and experimentation around mobile money with lower-income populations are increasingly prominent.

Outline of this report

Section II describes the macroeconomic context for payments in Malawi and the state of payments infrastructure. Section III presents a chronology of key policy initiatives, by government and the private sector, which have to date propelled the shift from cash to electronic payments.

Section IV compiles existing data and calculations to quantify the number and values of payments made in each cell of the payment grid in Malawi, as well as the percentage of payments made by electronic means. Section V analyses the Malawian payments system's propensity to shift more payments to electronic, through the lens of three specific use cases: mass electronic credits, remote bill payment, and card payments at merchants. Each of these use cases corresponds to one or more of the types of payments categorized in the payment grid.

Section VI draws on the Malawian case to offer insights on the sequence of shifts from cash heavy to cash lite hypothesized in the BTCA White Paper. The diagnostic concludes with some proposed case studies under the BTCA umbrella during 2013 and early 2014. Unlike in the other DRFRP diagnostic countries, the Malawi team does not recommend pursuing either of these case studies immediately; though they could offer lessons for BTCA stakeholders in other contexts, the initiatives they describe are in their infancy. Note that this section is neither a plan nor a set of recommendations for Malawi to follow since making any specific recommendations is outside the scope of a BTCA country diagnostic.⁶

2 Country context

Limited financial inclusion, high rural population and poverty rates

Malawi has a high population density, but very little urbanization: according to the World Bank⁷, 84% of Malawians live in rural areas. And this factor, combined with a per capita GDP of about \$750 USD PPP (2013), is essential to understanding the extent of financial inclusion⁸ and availability of electronic payments in the country.

Urban and formally employed Malawians tend to have bank accounts. However, as later sections of this diagnostic will describe, the majority of banks have demonstrated little drive to expand to the lower end market or to push electronic payments; mobile money products and agent networks are in their infancy.

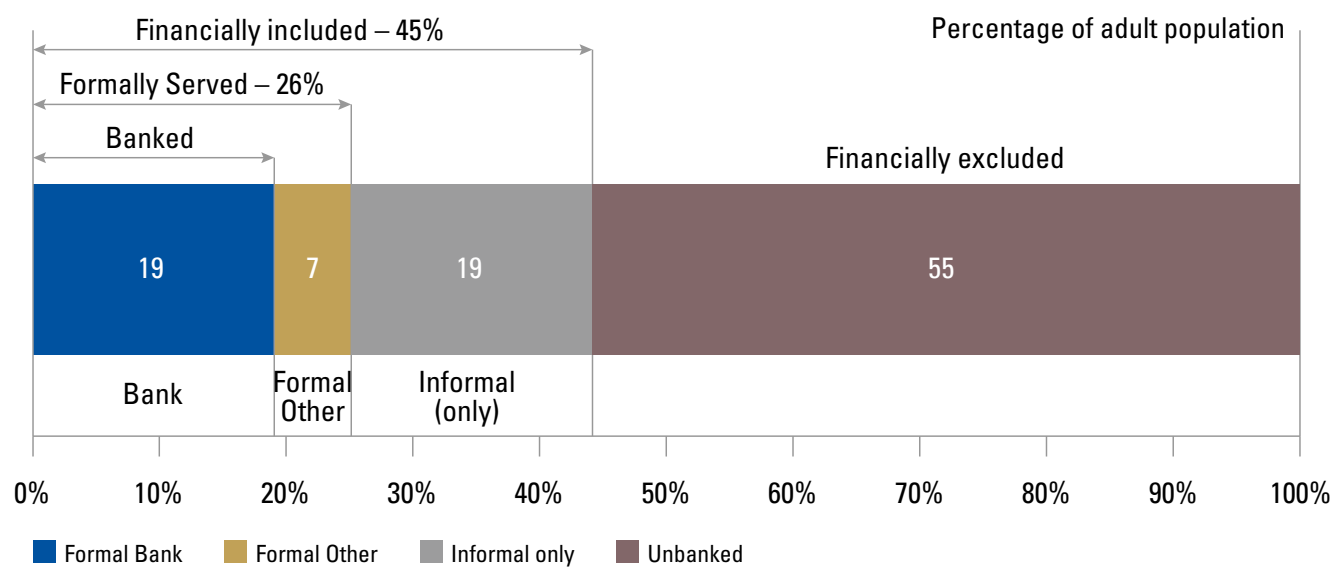
FinMark's 2008 FinScope survey⁹ reports that just 19% of Malawians have bank accounts, and a full 55% are financially excluded (see Figure 5 below). In 2011 Findex estimated the percentage of adults with an account at a formal financial institution, all of which are heavily concentrated in a few urban centers, at 17%.



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FIGURE 5 Financial inclusion in Malawi

Malawi Access Strand (n=4993)



Source: Finscope 2008.

The issue of poverty was overwhelmingly cited as a significant contributing factor for the low degree of financial inclusion:

The overwhelming reasons why people do not have bank accounts are income-related – 65% of individuals responded that they did not need an account since they did not have enough funds; 24% said that they had insufficient funds after their expenses for a bank account.¹⁰

The same degree of informality describes most businesses in Malawi (outside of large corporates). According to FinScope's 2012

survey of small, medium and micro enterprises¹¹, around 8% of SMMEs are licensed and just 22% of SMME owners had bank accounts¹². Not surprisingly, **96% of respondents said their usual method of payment is cash.**

Given this context, Table 1 below shows the financial access points available in Malawi.

TABLE 1 Financial and mobile infrastructure

	Malawi	Rwanda	Mozambique	Tanzania
Cash Handling Points/100,000 adults (2010)¹³				
Branches	2.16	1.87	2.89	1.84
ATMs	2.65	0.46	5.09	3.44
POS terminals	4.44	1.67	38.31	16.14
Mobile-cellular telephone subscriptions per 100 inhabitants¹⁴	28	50	33	57
Percentage of Individuals using the Internet¹⁵	4	8	5	13



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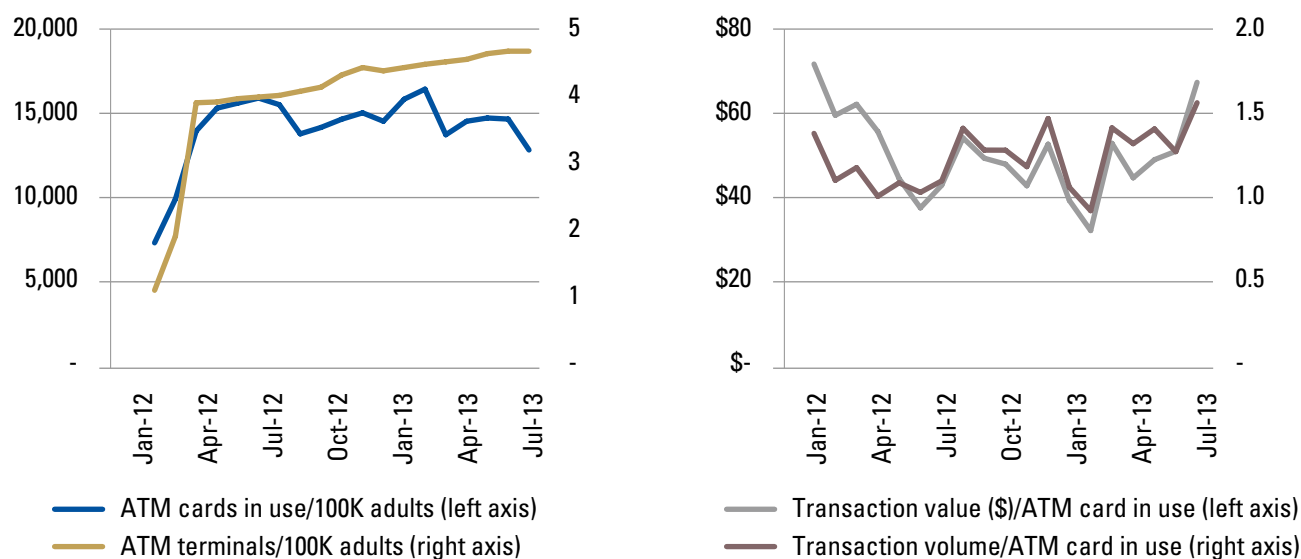
Electronic payments show some growth, but values are low and usage is concentrated in banked population

As the data on financial inclusion would suggest, **the usage of electronic payments infrastructure in Malawi is low** — both in terms of the segment of the population using electronic payments and in terms of the absolute dollar values involved.

Though most transactions at ATMs are cash deposits and withdrawals, as opposed to bill payments (and thus not counted as payments) the usage

trend of ATMs is illustrative of the electronic infrastructure in the country in general. As Figure 6 below shows, there are fewer than 5 ATMs in Malawi per 100,000 adults, and just 12,815 ATM cards per 100,000 adults. These numbers, as well as those for the average monthly volumes and values of ATM transactions, have shown little to no growth over the past year. Note that that average transaction value per ATM card was USD 67 in July 2013 (over 90% of Malawi's monthly per capita GNI).¹⁶ So not only is ATM usage flat, but this channel is only used by those with higher incomes who have cards in the first place.

FIGURE 6 ATM deployment and usage in Malawi

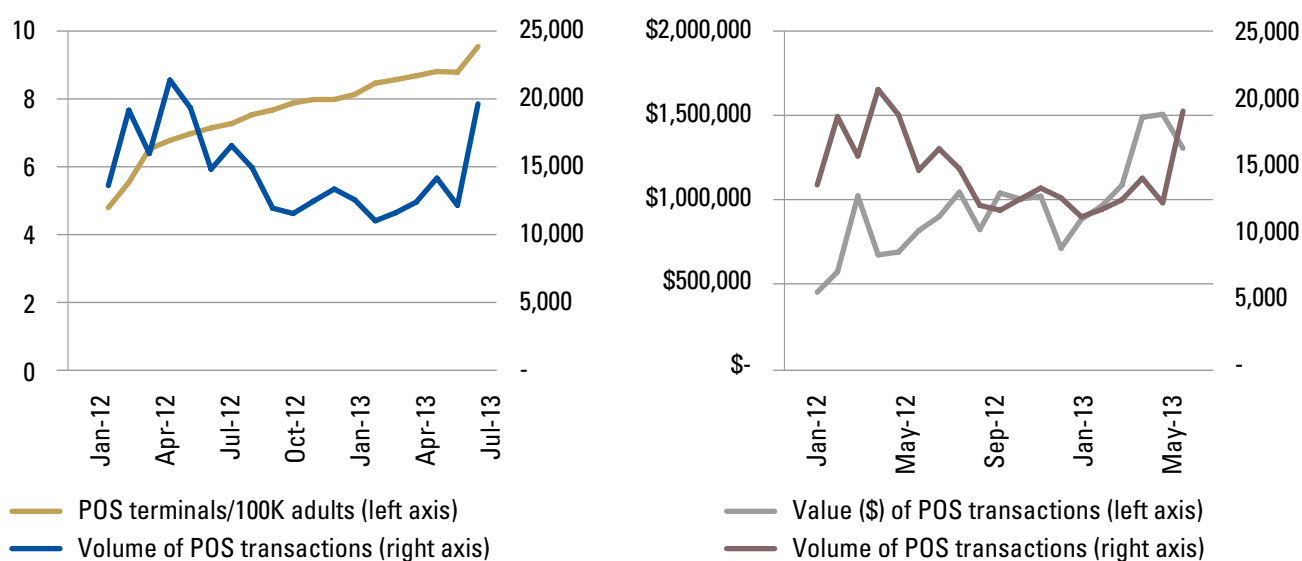


Source: RBM data; World Bank population estimates; monthly exchange rates from www.oanda.com

The data on point-of-sale (POS) terminals tell a similar story: while there has been **a slight increase in the number of terminals, there has been no corresponding increase in the volume of transactions**, as Figure 7 below shows. The average monthly value of transactions fluctuated greatly from early 2012 through mid-2013 but has increased considerably since. These data

suggest either that merchants are increasingly not accepting cards for lower value transactions (because of the merchant discount rate charged to them) or that card users are choosing to pay for only higher value goods with cards. Perhaps most notably, over the past year there have been only between 125 and 225 monthly POS transactions per 100,000 adults.

FIGURE 7 POS deployment and usage in Malawi

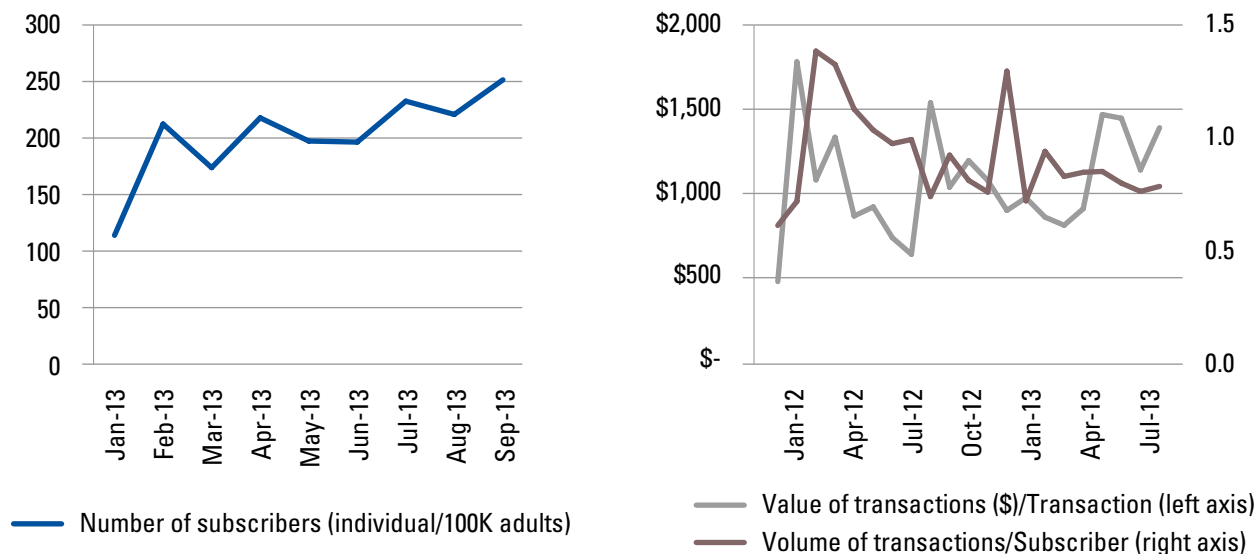


Source: RBM data; World Bank population estimates; monthly exchange rates from www.oanda.com

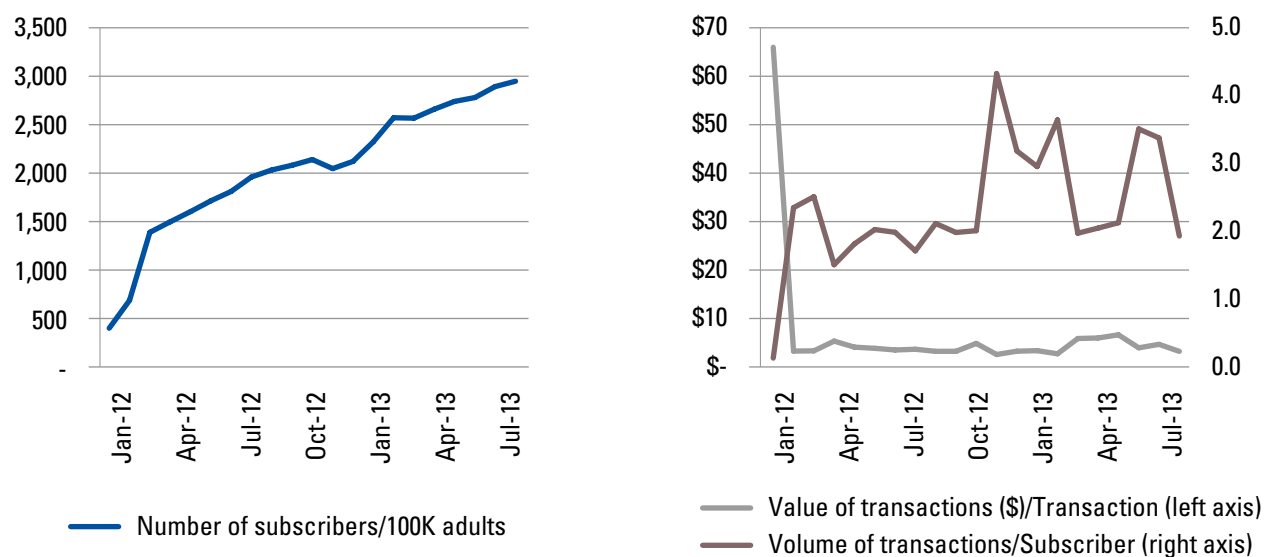
Internet banking and bank-based mobile banking reinforce this conclusion, too. As Figures 8 and 9 below show, **the number of subscribers for internet and mobile banking is growing, but the numbers remain small:** 254 individual internet banking subscribers per 100,000 adults (or 22,013 total, compared with 4,432 corporate subscribers), and 2,941 mobile banking subscribers per

100,000 adults. The average value of internet banking transactions is high (\$1,291 USD as of September 2013), as expected, since the data include corporate subscribers. Also as expected, mobile banking has a low average value (about \$3), since it is likely not used by corporates, cumbersome for high values, and could be subject to transaction limits.

FIGURE 8 Internet banking usage in Malawi



Source: RBM data; World Bank population estimates; monthly exchange rates from www.oanda.com

FIGURE 9 Bank-based mobile banking

Source: RBM data; World Bank population estimates; monthly exchange rates from www.oanda.com

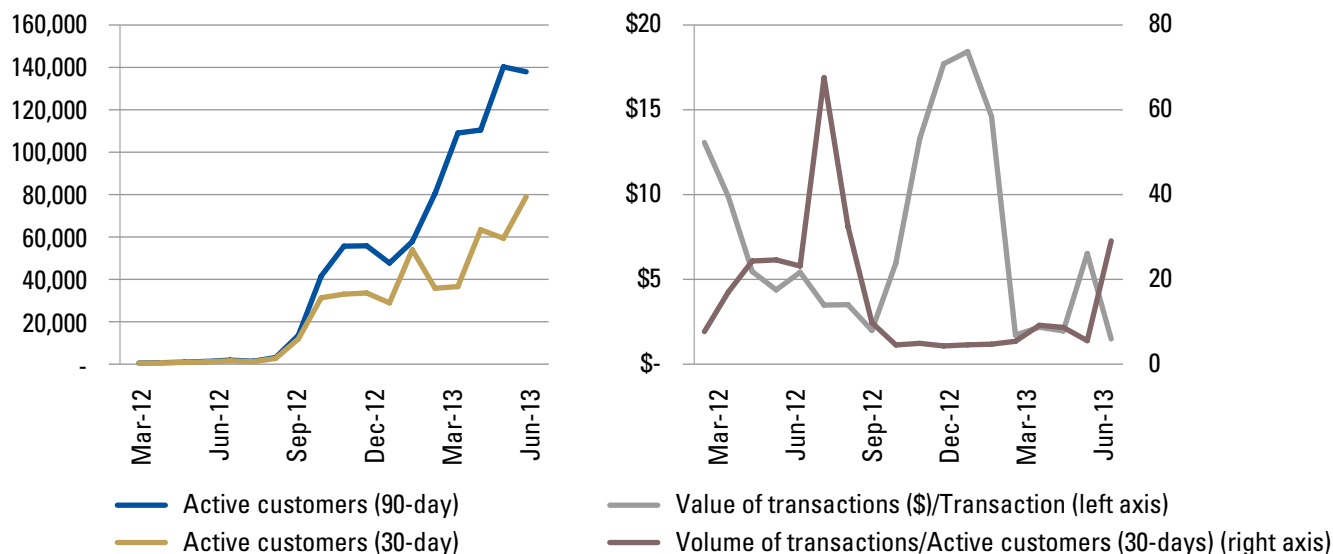
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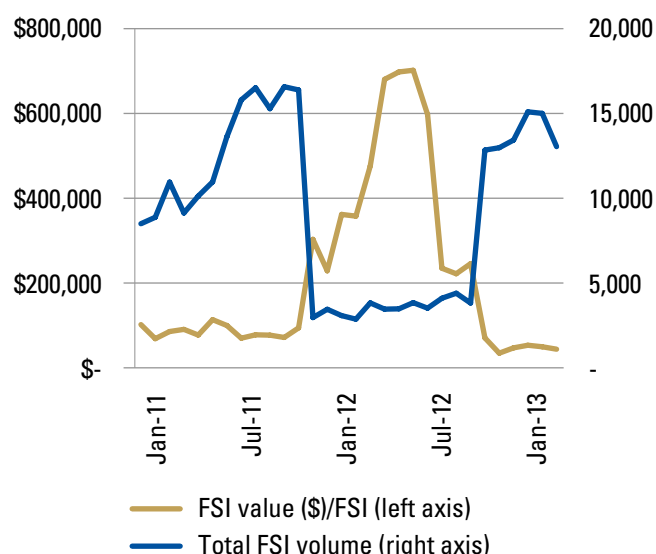
Turning to MNO-led mobile payments, Figure 10 shows that there has been an increase in subscribers; but here, too, overall usage is low (one MNO launched transaction capabilities in 2012, the other in May 2013). **Just 0.9% of adults have used non-bank-based mobile payments in the past 30 days, and just 1.6% if a less restrictive 90-day definition is used.** At the same time, the data do not show strong trends in average

monthly transaction volumes and values per customer (though there are spikes). This indicates that the new mobile money customers behave similarly to the existing ones — they are likely testing it out. And this could be explained by a combination of transaction limits on accounts and the type of people to whom the Mobile Money Issuers (MMIs) market their products.¹⁷

FIGURE 10 MNO/MMI-led mobile payments



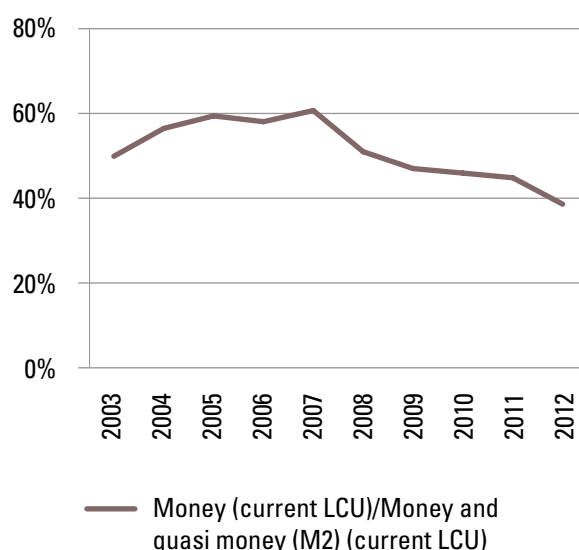
Source: RBM data; monthly exchange rates from www.oanda.com

FIGURE 11 Funds settlement Instructions

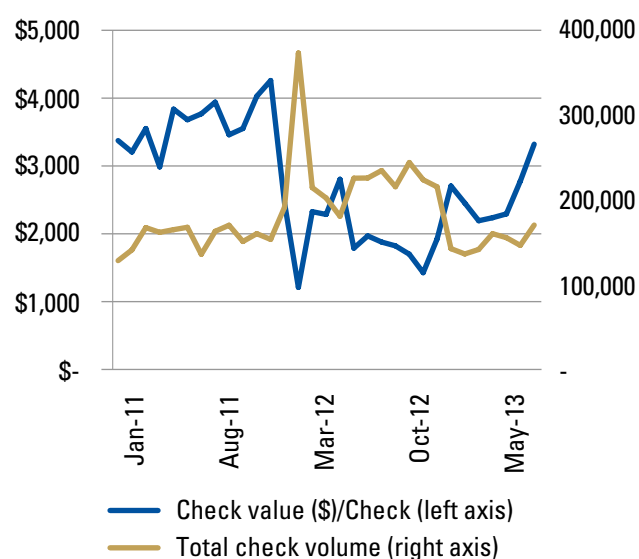
Source: RBM data; monthly exchange rates from www.oanda.com

Finally, considering payment preferences in the overall economy, there does not appear to have been a consistent, large-scale decrease in cash and increase in electronic payment instruments. Between January 2011 and July 2013, fund settlement instructions, for high value payments (Figure 11), rose and fell but were overall flat. Currency in circulation as a component of the monetary supply (Figure 12) is down somewhat since its peak in 2007, yet check usage (Figure 13) was flat.¹⁸

This macro-picture is consistent with the data on individual instruments and channels above: **no notable shift to electronic payments seems to be occurring in Malawi.**

FIGURE 12 Cash to broad money supply

Source: RBM World Bank DataBank

FIGURE 13 Check usage in Malawi

Source: RBM data; monthly exchange rates from www.oanda.com



3 Evolution of policy toward electronic payments

E-payments policy and infrastructure driven by the RBM and MoF

There are two specific strategy documents that frame the Government of Malawi's policy objectives and activities toward a shift to electronic payments: the **National Payment System Strategy (2009 to 2013)** and the **National Strategy for Financial Inclusion (2010 to 2014)**.¹⁹ In addition, Malawi's poverty reduction strategy, the Malawi Growth and Development Strategy (MGDS), was launched in 2006 and renewed in 2011. It focuses on reducing poverty through private sector-led economic growth and infrastructure development, including improving access to financial services and the infrastructure and policies that enable it.

Malawi has taken a forward-looking approach to creating a state of the art, modern national payments system: after some 20 years of policy level reforms and systems developments, the country today is well on its way to having a fully interoperable national switch (see Annex D for details), along with supportive and

enabling regulation that complies with internationally-accepted best practices.

Real payment system reform effectively began in 2001 with the launch of the National Payment System (NPS) Strategy and Framework, the blueprint upon which all NPS modernization projects in the country have been based. The NPS Strategy articulated goals for creating safe, efficient and appropriate payment services to improve the functioning of finance for individuals (through financial inclusion, with an explicit focus on urban and rural access), for businesses (through interoperable electronic retail facilities), and for government (to improve efficiency by reducing the reliance on cash for payments of salaries, wages and pensions to public sector employees).

The Strategy was the culmination of nearly a decade of preparation. In 1993, just four years after the Government of Malawi (GoM) established the Reserve Bank of Malawi (RBM) through the RBM Act

of 1989, RBM set up the National Payments Council as a multi-agency advisory body in order to foment coordination toward the strategy and framework.²⁰ Soon after establishing the NPC, in 1995 the GoM became part of the SADC Payment Systems Project, part of a broader financial development project of SADC countries, initially focused on implementing the RTGS and funded by the World Bank.

Major payment system improvements starting in 2002

Prior to 2002, Malawi used a Deferred Net Settlement (DNS) System, an antiquated system that caused delays, uncertainty and heightened payment risk. With DNS, interbank funds transfer instructions were sent by the commercial banks to reserve banks via facsimile, with transactions settled at the end of the business day. Check processing was also manual: banks would meet in the clearinghouse twice per day to exchange checks drawn on each other. The clearing period for checks ranged from 7 to 21 days.

Between 2002 and 2008, the GoM improved the electronic payment environment through the upgrade and/or establishment of several modern electronic facilities, all discussed in detail below, including: the Malawi Switch Centre (MALSWITCH); a real time gross

settlement (RTGS) system, called the Malawi Interbank Transfer and Settlement System (MITASS), in 2002; an Electronic Check Clearing House (ECCH) in 2005; an EFT/ Smart Card Scheme; an Electronic Bidding System; and the Integrated Financial Management System (IFMIS) for government payments.²¹

The NPS Oversight Policy, which became effective on January 1, 2008, allows the RBM to conduct payment system oversight activities in order to ensure that the modernized payment system is efficient and conforms to internationally recognized principles.

Also in 2008, RBM, the National Payments Council and the Bankers Association of Malawi **introduced and endorsed a revised National Payment System Vision and Strategy Framework** for 2009-2013. It articulated the country's vision for interoperability and straight through processing (STP) as core principles of the NPS and asserted that the functioning of the economy depended on adequate payments services infrastructure and, as such, its design, implementation, and management should be the responsibility of "all stakeholders."

Although Malawi has implemented several electronic-based payment products and services, **there is no specific legislation that covers the operation of such facilities.** The first

Draft NPS bill was prepared in 2002, but is still pending to date due to, according to the RBM, a series of delays resulting from modifications and reviews as priorities and infrastructure have evolved. Today, **the RBM's NPS efforts appear to center on the passage of the NPS Bill and the development of a new national switch**, which became a priority after the efforts around MALSWITCH failed to gather momentum necessary to achieve its objectives to achieve greater interoperability, as discussed below.

Financial inclusion strategy aligns with the payments vision

The Ministry of Finance (MoF) and RBM have established a clear strategy for payment system development, anchored by the National Strategy for Financial Inclusion (2010 – 2014). As part of the strategy, **a Financial Sector Policy Unit (FSPU) was created within MoF in late 2010**. The FSPU is responsible for the development and oversight of the national financial inclusion strategy, a four-pronged approach, which seeks to strengthen financial regulation and supervision, modernize financial sector infrastructure, expand access to finance and better define the role of government in the sector.

Efforts to improve the financial sector have largely focused on

legal and regulatory factors. While banking supervision complies with the majority of Basel Core Principles, the regulatory framework for non-bank financial institutions is rapidly developing. The MoF wants to build its capacity for the development and coordination of financial sector policies, and the oversight of state ownership in the financial sector. The government **policy objective is to build a financial sector – one that supports the MGD Strategy's vision of inclusive and sustainable growth**.

There is close alignment between the Financial Sector Development Strategy and the national payment system vision, exemplified by the establishment and implementation of the World Bank **Financial Sector Technical Assistance Program (FSTAP)**, a \$28.2 million USD program tasked with providing “a roadmap for financial sector development in Malawi.” Malawi's FSTAP Project Concept was introduced in September 2010 and formally launched in February 2012.

The FSTAP project is financing (i) strengthening RBM's regulatory and institutional framework and supervision capacity; (ii) developing financial sector infrastructure through upgrading the payment system and through mobile phone banking technologies; (iii) supporting financial inclusion and consumer protection activities through a multi-

donor financial sector deepening trust; (iv) building MoF's institutional capacity for financial sector policy and government cash management; and (v) supporting RBM's project management unit.

Notably, **FSTAP funds have paid for the national switch** (but there is a loan agreement with the World Bank for the banks to pay back the loan for the switch (\$3.9 million USD)). Another \$3.28 million USD is dedicated to technical assistance to support the establishment and strengthening of the government's financial sector policy unit and training of MoF staff on financial sector issues.²²

Lack of a national identification system has been recognized as another major hurdle in achieving financial inclusion objectives.²³ Finally, strong governance will be needed to prevent the aftermath of the Cashgate scandal from further derailing momentum toward financial sector development and financial inclusion strategy implementation.

As a payer, GoM's ability to shift has been weak

Inside the GoM, the RBM is clearly driving policy movement towards a shift, along with political support and momentum within other ministries such as Ministry of Finance and the Ministry of Gender. Outside of these major reforms to modernize the

national payment system, however, the Government of Malawi still makes payments almost entirely by check and **has not been as progressive in the shift to making electronic payments.**

Government reforms of its own payments processes began in 1995²⁴ with a project to move from a decentralized payment system, in which each ministry managed its own payments and budgets, to a centralized payment system, via the IFMIS (described in Box 1 below). Yet, implementation of the IFMIS only began in 2005. The MoF opened five accounts at the RBM, and the ministries closed their accounts at the commercial banks, except for those accounts used for donor-funded projects, Treasury funds and local assemblies. A main Central Payment Office (CPO) was established at the Accountant General's Department, within the MoF, and mini CPOs were opened in the regions. By the end of July 2006, IFMIS was rolled out to all ministries and departments.

The IFMIS was intended to bring efficiency and transparency to government payments. Its completion contributed to cancellation of Malawi's debt to the World Bank/IMF in 2006²⁵ and eliminated the backlog of bank reconciliation inherent in the decentralized, commercial bank-linked model. While it was certainly an improvement over the decentralized model that preceded it, recent events suggest that **IFMIS has not been as effective at reducing fraud and enforcing fiscal discipline** as many had hoped.

Box 1 Integrated Financial Management Information System (IFMIS)

The national government, through the Accountant General's (AG) Department in the Ministry of Finance, makes salary, pension and supplier payments centrally. However, unlike in the systems in place in Mexico and Nigeria (described in a BTCA case study and a diagnostic, respectively) and in development in the Philippines (BTCA diagnostic), Malawi's centralized payments system does not make payments electronically.

Government employees are all required to have bank accounts. (As of May 2013, there were 139,477 civil servants, though some categories, such as local chiefs on government payroll, are exempt and are paid in cash.) Each month, the AG writes one large check to Bank A for all government employees whose accounts are at Bank A. Then Bank A electronically disburses the correct salaries, based on schedules sent by IFMIS, into the employees' accounts. The same process occurs for each bank at which government employees maintain accounts.

Government pensions for 25,000 pensioners are paid in the same way. For the remaining 2,000 pensioners who are too old and sick to go to a bank, the AG issues a check to officers in local government, who then cash the check and hand deliver the cash to the pensioners.

To qualify for government procurement contracts, suppliers must be registered with the Bureau of Public Procurement. There are now about 3,000 registered suppliers, but neither the BPP nor the AG keeps a record of how many of these suppliers are on active contracts or even how many are still in existence as companies. The AG does actual payment, mostly by check.

Recent policy emphasis on mobile, driven by donors

Government commitment to reform and development of electronic payment systems and facilities, particularly from the RBM and Ministry of Finance, has signaled an opportunity for real progress. That momentum has been driven in large part by development partners.²⁶ Development partners have been particularly aggressive recently on advocating mobile banking as a leapfrog tool for financial inclusion and certain payments such as G2P, D2P, P2P and some P2B.

The NPS Strategy (2009-2013) hardly mentions mobile banking or mobile phone-based payment methods. Indeed, the provisions in the RBM Act (2010) do not cover the oversight of modern electronic payments systems.²⁷ Mobile money appears to make its debut as a policy priority in country-level policy documents in 2010 with its treatment in FSTAP planning. This indicates the **swift shift in focus toward mobile money in recent years**. Regulations on mobile banking are still nascent and the further review and alignment of related e-banking and agent regulations is ongoing.

In 2012, Airtel launched its mobile payments product Airtel Money. That same year, **USAID launched a Mobile Money Accelerator Project (MMAP)**²⁸, run by FHI360 and involving the RBM, MoF, the Bankers Association of Malawi (BAM) and major development partners like UNCDF in a **Mobile Money Coordination Group (MMCG)**. Beyond coordination, the MMAP seeks to accelerate the pace of mobile money uptake through a series of interventions and investments, including several pilots of mobile money products and services for different segments, including G2P recipients, low-wage earners, farmers, civil servants and others.²⁹

UNCDF also launched its own MM4P (Mobile Money for the Poor) project, which provides technical assistance to RBM, and conducts research to identify opportunities to advance mobile payments in different sectors.³⁰ The UN's World Food Program, which coordinates Malawi's annual emergency response to drought-stricken areas, has placed heavy emphasis on mobile payments to cash grant recipients for the 2013 response, despite significant challenges using Airtel Money for payments in 2012. Through support from KfW, the **Ministry of Gender is planning to experiment with mobile payments for its Social Cash Transfer Program (SCTP)**.

Box 2

Cash transfer programs from government and donors

The diagnostic team reviewed Malawi's two most prominent social cash transfer programs, the Social Cash Transfer Program (STCP) run by GoM and the INGO-led Integrated Annual Emergency Response. To different degrees, both have started experimenting with shifting from cash in transit and OTC payments to electronic delivery via bank accounts or mobile phones.

The SCTP is implemented by the Ministry of Gender and aims to support the poorest 10% of Malawi's ultra-poor through regular cash transfers, intended to reduce malnutrition and boost school enrollment. The SCTP is currently active in 7 districts in Malawi, though there are plans to expand the program further. Currently, the program makes payments of around USD 11 per month to approximately 30,000 households. While these are currently all cash payments, with resources from KfW and others, the Ministry aims to experiment with electronic payments in two districts, likely beginning in 2014.

The Emergency Response aims to save lives, reduce suffering and build resiliency among food-insecure households during Malawi's drought season. The stipend amount is based on the market basket price of the equivalent of in-kind aid, but is typically around USD 37. In the 2012-2013 emergency response, which reached approximately 40,000 individuals across three districts, the consortium experimented with electronic delivery of transfers via three different payment service providers, Airtel Money, OIBM, and G4S Security. Although Airtel struggled to fulfill its role as a PSP in the 2012 response, which led to one NGO abandoning the service and reverting to cash³¹, the World Food Programme and the INGO consortium have decided to use Airtel Money exclusively for the 2013-2014 response.

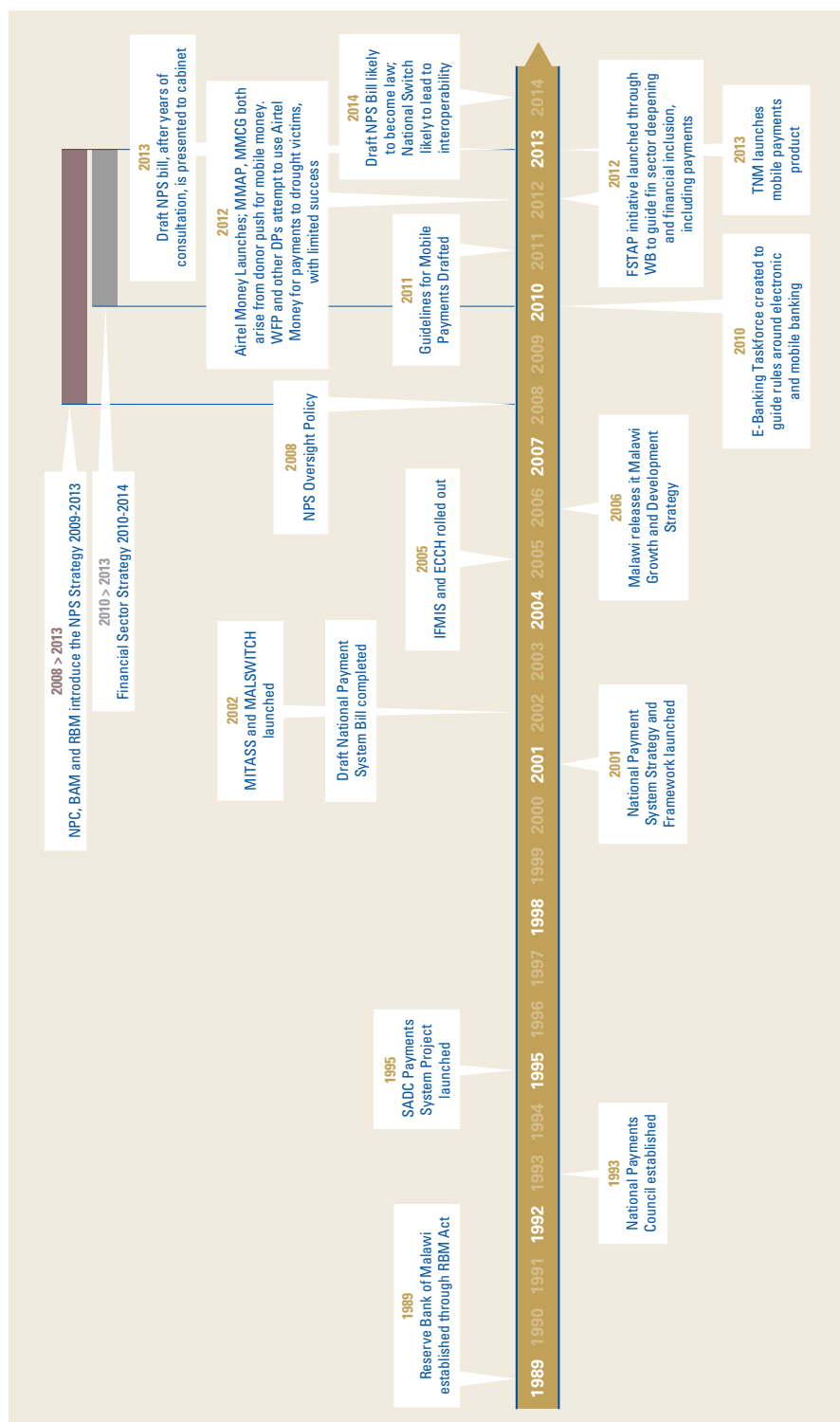
In 2010 the RBM created an E-Banking Task Force, consisting of members from its Banking & National Payments System, Bank Supervision, Internal Audit, Information & Communication Technology, Legal Affairs & Bank Secretariat and Exchange Control & Debt Management departments, to coordinate its approach on mobile payments. The guidelines produced by the Task Force in March 2011 mandated that interested non-bank institutions or mobile network operators (MNOs) should partner with registered commercial banks if they want to operate mobile payment services in Malawi.

While donors, and to a lesser extent government, have placed a heavy emphasis on the development of

the mobile money market, RBM has expressed concern that the rise of mobile money has complicated its vision of the shift to cash lite. The current Guidelines on Agent Banking and Mobile Payments may create an uneven playing field for banks and MNOs, particularly in the absence of e-money regulations (currently in draft and under review). Arguably, the difference could tilt the market in favor of non-banks (i.e. MNOs) whose respective regulations for agents and KYC requirements are less onerous than those that apply to banks.³² Through FSTAP, the GoM have indicated an intention to combine e-money and agent banking guidelines into one common regulation and ensure a level playing field moving forward.



Payments system milestones



4 Current state of transition to e-payments

Headline indicators

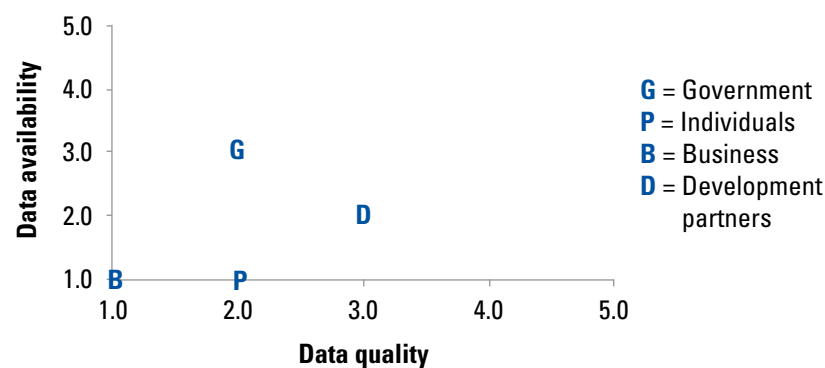
The narrative in the previous two sections comes from a thorough analysis of available information and data on payments made in Malawi. These data indicate that the vast majority of the payments made in Malawi are made in cash and checks: **just 0.3% of the 221.5 million payments made every month are through electronic means.**

The dominance of cash in the country's payment system is not surprising considering the large unbanked population and the predominance of subsistence farmers and informal sector, all transacting in cash to buy and sell goods.

Data Quality Index

Quantitatively mapping the payments landscape is a necessary first step to a targeted effort to convert cash to electronic payments. However, with large segments of transactions taking place in cash, aggregate estimates — especially data on payment volumes — are not available and need to be constructed from multiple sources. Figure 14 below provides an at-a-glance indication of the quality and availability of the data relating to each payer in the grid, based on the scoring below, and hence the country team's confidence in the overall calculations. In general, in common with many emerging markets, the quality and availability of data relating to government

FIGURE 14 Data quality and availability: Malawi



Malawi is in the very early stages of its shift to cash lite. Just 0.3% of the 221.5 million payments made every month are through electronic means.

payments (G) is better than for business (B) or individuals (P), where it is generally lacking and relies on extrapolation based on assumptions from a variety of estimates. However, despite the low ranking for business overall, some large corporates in the agribusiness, utilities, financial/ insurance services and wholesale and retail trade sectors were generally willing to participate in this research, the majority on the basis of anonymity. For Malawi, even obtaining government data often required in-person meetings and follow-up requests and estimating the numbers using multiple data sources. The data gathering process encountered further challenges due to Cashgate, discussed above, which left many data requests ultimately unfulfilled.

Payments data by payer and payee

As Table 2 below shows, the estimated 221.5 million payments per month correspond to a value of over USD 760 million per month. **Individuals and businesses initiate the majority of payment volumes (99.8%) and are overwhelmingly cash-heavy** (only 0.2% electronic for individuals and 3.6% for businesses). Business payments make up 53% of payment value and are mostly made using cash and check.

The total value covered by these data is much greater than Malawi’s USD 4.3 billion GDP (2012) because this analysis follows payment streams through multiple transactions.

TABLE 2 Payments by payer in Malawi³³

Payer	No. of payments/month	% volume electronic	Total value MWK mil	Total value USD mil	% value elec.
Government	388,518	0.3%	36,927	\$110.3	8%
Business	5,871,911	3.6%	134,965	\$403.2	38%
Individuals	215,204,166	0.2%	81,451	\$243.4	10%
Dev. partners ³⁴	32,530	80%	1,133	\$3.4	89%
Total per month	221,497,125	0.3%	254,475	\$760.3	25%
Total per year	2,657,965,506	0.3%	3,053,704	\$9,123.7	25%

The data suggest there is a cash pool of USD 572.2 million in monthly payments. P2B payments represent the largest pool of cash value for electronic conversion at an estimated USD 189.1 million, followed by B2P payments, which represent an estimated USD 116.8 million in cash value. Another large pool of cash (USD 72.4 million per month) is B2G payments.

Table 3 below shows the volume of monthly payments for each payer-payee combination.

As Table 3 shows, most payment transactions occur between consumers and businesses, and between businesses and other business or corporate establishments.

TABLE 3 Number of monthly payments by payer and payee type

PAYER	PAYEE		
	Government	Business	Individual
Government	298	172,099	216,121
Business	464,191	4,149,125	1,258,595
Individuals	334,503	214,481,381	388,283
Development partners ³⁵			32,530

Tables 4 and 5 below show the percentage of payments, by volume and value, respectively, made by electronic means for each of the cells in the payment grid.

Comparing values and volumes for all payers and payees, all payments to businesses and most payments to individuals have a higher percentage in value than in number of payments paid electronically.³⁶ This suggests that **payers tend to make larger value payments electronically to these payees; but**

smaller payments, which are paid in cash, account for a larger share of the overall payment volume.

The low prevalence of government electronic payments is due to the nature of the payments: Although the national government pays civil servants by directly depositing their salaries in their bank accounts, the government writes checks to the respective banks to effect these payments, which is defined for this study as a non-electronic payment. (See more in Annex B about G2P payments.)

TABLE 4 Percentage of electronic payments by volume

PAYER	PAYEE		
	Government	Business	Individual
Government	36%	1%	0%
Business	0%	1%	14%
Individuals	1%	0%	7%
Development partners			80%

TABLE 5 Percentage of electronic payments by value

PAYER	PAYEE		
	Government	Business	Individual
Government	5%	12%	0%
Business	0%	59%	36%
Individuals	2%	9%	51%
Development partners			89%

5 Trajectory of shift: payment infrastructure and incentives

Relevant use cases

BTCA country diagnostics seek to assess the trajectory of the shift to electronic payment, through the lens of particular payment use cases (see Annex B for more information), which are particularly relevant to the stage of the journey of the country. This section explains the current state and momentum of the shift to electronic payments in certain cells of the payment grid.

The use cases selected for analysis provide a general view of the forces driving the shift in Malawi today:

B. Mass electronic credits such as salary payments (initiated via many means)

C. Account-based remote bill payments across a range of channels

D. Goods purchases with debit cards at a merchant with POS

These use cases (color coded as per the footnote) apply to the different cells of the payment grid as highlighted in Figure 17 below.

FIGURE 15 Use cases and payment types in Malawi

		Recipient		
		G	B	P
Entity making the Payment	G	G2G Central government disbursements to local level Transfers within the central government	G2B Supplier payments Utility payments	G2P Welfare programs, Salaries, Pensions
	B	B2G Taxes, Fees for licenses and permits Payments to gov't utilities	B2B Supplier payments, Utility payments, Pension contributions	B2P Salaries and benefits
	P	P2G Taxes, Utilities Debit card payment of taxes Payments to gov't utilities	P2B Utilities, School fees, Credit card payments, Pension contributions Debit card payment at stores	P2P Remittances, Gifts
	D	D2G Taxes	D2B Utility payments	D2P Cash transfers Salaries for local employees

Note: Mass electronic credit (or bulk payments); Remote bill payment (or bulk collections); Debit card payments at merchants.

G = Government; B = Business; P = Individuals; D = Development partners

The payments are made and received by: government (G), business (B), individuals (P, for person) and the development community (D).

Table 6 below presents a high-level review of the availability and costs of electronic payments for each of the three use cases.

TABLE 6 Overview of Payments Use Cases

	Bulk payers (G, B, D)	Non-bulk payers (P, B)	
Use case defined	A. Mass electronic credit – Mass fund transfers	B. Remote bill payment	C. Debit card payment at merchants
(a) Store of value from/to which payment is made	Bank account or mobile money account	Bank account or mobile money account	Bank account
(b) Payment instrument category	Check into electronic: employer (e.g. government) pays each bank via check; Bank then credits individual accounts. Therefore, not end-to-end electronic.	Varies. Could be mobile phone e.g. Airtel Money for water bills, or internet (Standard Bank). In theory could also include via ATM, but banks in Malawi do not appear to offer ATM bill payment.	Debit card
(b1) Payment device (acquirer)	Varies. Could be a corporate system ranging from paper to electronic.	Varies. Could be a corporate system ranging from paper to electronic. Could also be phone, internet or pay at counter.	POS
(c) Transaction type	Credit 'push'	Debit 'pull' and credit 'push'	Debit 'pull'
(d) Means used to initiate and authorize	List provided by employer/payer. Manual list needs to be provided for each payment cycle.	Varies depending on access channel/ acquiring device (hence multiple use cases contained within this one); could be internet username, data on debit card, mobile phone number, etc.	Track 1 and 2 data contained on debit card (and PIN kept on bank's system)
(e) Mode of clearing/ speed of process	Bulk payments (One to many); send value then information. ³⁷ Paper-based schedules still used for making payments into accounts. Individual banks may have to utilize inter-branch transfer (IBT) as part of this process.	Many to one	One to one: Real-time authorization for single instructions.
Is there a range of providers who offer this?	Yes	Yes	Yes

	Bulk payers (G, B, D)	Non-bulk payers (P, B)	
Use case defined	A. Mass electronic credit – Mass fund transfers	B. Remote bill payment	C. Debit card payment at merchants
Time to credit value received	T+1 across banks/ longer where checks are involved (up to 7 days in remote areas)	T+1 across banks Unclear across MMIs.	T+1 across banks
% of all accounts which can be used with this instrument	All bank accounts and mobile money accounts. Note: employers are still multi-banked in that they generally must have an account at each bank which one or more employees use for salary payments due to lack of interoperability.	All mobile money accounts. Bank accounts for which bank offers bill payment services.	Bank accounts for which card is accepted at POS, e.g. OIBM or Indebank cards on MALSWITCH POS, cards of the four VisaNet banks on Visa POS, etc.
Indicative cost to consumer per transaction for an average size transaction	<p><i>At one indicative bank:</i></p> <ol style="list-style-type: none"> 1. Cost of card³⁸ (~MWK 1800) borne by employer 2. One-time processing fee per new employee (borne by employer): MWK 200 3. Monthly account maintenance fee: MWK 200 (borne by employee) <p><i>At second indicative bank:</i></p> <ol style="list-style-type: none"> 1. MWK 170 per payment, to employer's account 2. Likely additional branch/ ATM withdrawal fees (MWK 200/ 90, respectively) if consumer cannot use money electronically 	<p><i>At one indicative bank:</i></p> <p>Mobile banking—no charge for bill payment</p>	No charge to customer; Merchant discount rate between 1.8%-4.0
As % of average tx amount	Unclear—need average transaction size to calculate.	Same—need average transaction size.	No cost to customer.

The remainder of this section is a rating of the trajectory towards shifting for these use cases. In each case, several factors are assessed and weighted: the overall country environment and conditions to promote shift; the interest of service providers; and incentives from

different user groups. **The detailed ratings can be found in Annex C and the supporting analysis in Annex D.** Although not assessed in depth as the use cases below, **the annex also includes trajectory scores for Development Partners.** Donor payments are an integral part of the

payments ecosystem in Malawi: donor aid accounts for 40% of Malawi’s national budget, and 31 donors support various aid projects throughout all of Malawi’s 28 districts.³⁹

The factors that generate the ratings vary somewhat by the use case, but each is rated according to the categories in Table 7 below.

TABLE 7 Use case ratings

Rating	Conditions & incentives are such that it is:
1	Highly likely to support a full shift
2	Possible to achieve a full shift
3	Likely to lead to slow incremental progress
4	Likely to drift without clear upward trend
5	Unlikely to lead to shift

Use case A: Mass electronic credits

Use case assessment:

3.6

Slow progress without clear upward trend

This use case covers a range of payment streams considered ‘one to many,’ i.e. one payer paying to multiple parties. Mass electronic credits include a variety of payment types including salary, pension payments and social cash transfers, among others.



The key findings are mass electronic credits in Malawi include:

1 With respect to payroll: Commercial banks are established providers of these services in Malawi. In most cases, these payments are not end-to-end electronic, as employers submit paper lists of employees to each relevant bank for every payment period. Standard Bank uses a web-based platform to make these and other bulk payments. From the interviews for this diagnostic, OIBM relies on inter-branch transfers (IBT) after receiving lists from employers. Employers pay individual banks via check or electronically for the full payroll amount and then provide a paper or electronic schedule (depending on the bank) to advise how the lump sum is to be distributed into individual employees' accounts.

2 The Malawian government uses the same process, issuing checks to banks to then disburse into employees' and pensioners' accounts. (See Section III.) With the suspension of IFMIS, it is unclear if the lists are sent electronically or manually, and it is unclear how they are updated and reconciled.

3 Some big businesses have begun to make payroll payments electronically.

The Limbe Leaf Tobacco Company delivers an electronic file along with a check to individual banks where its employees have bank accounts. Some banks (e.g. Standard Bank) do provide inter-bank payments in an electronic manner for these types of payments.

4 Most smallholder tobacco farmers, those not formal employees of estates, are paid at auction directly into accounts. However, many of these accounts are group accounts (for up to 20 farmers), where a designated group

leader withdraws and disburses the payment from the purchasing company. Hence the payments are initiated by check or through inter-bank transfer, but the farmers receive them as cash payments. (Farmers of other crops are paid by different means. Tea farmers, for instance, are mostly employed by estates; they and farmers of legumes, cotton and coffee are paid directly in cash.)

5 In a limited number of instances, mobile money services have been used to facilitate mass electronic credits. TNM's mobile money service, for example, provides bulk salary payments to school supervisors. However, TNM's corporate salary payment services are not yet active.

6 Cash transfer payments (G2P) under the Social Cash Transfer Program (SCTP) and other G2P programs still consist of manual disbursements at present. KfW and other donors such as Irish Aid are considering making part of the process electronic (though the disbursements will remain in cash) in the specific districts in which they are responsible for executing the cash transfers — **hence G2P may emerge as an important source of retail mass credits**. However, if, in the future, beneficiaries receive disbursements electronically but are not able to use the electronic value (for lack of development of the local financial services infrastructure), they will continue to have to cash-out; the disbursements would not be end-to-end electronic in this case. In short, while migration to electronic disbursements might reduce costs for the disbursers such as government and donors, it will not necessarily make beneficiaries' lives easier unless conditions are amenable to the usage of electronic value.

Use case B: Remote bill and services payments

Use case assessment: 3.8

Likely to drift with no clear upward trend

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 affect remote bill payments with a range of payment instruments (e.g. card at POS, mobile banking or mobile financial services) from one of several stores of value (bank account, mobile money account). One of the most common examples of remote bill payments is a utility company, which enables customers to pay their bills at a retailer with whom it has concluded a service agreement.

Other examples of this grouping of use cases (across various supported channels and stores of value) include:

- Collection of taxes (P2G, B2G)
- Collection of school fees (P2B)
- Credit card payments (P2B)

Key findings around remote bill payments in Malawi include:

1 While several services enable customers with bank or mobile money accounts to make remote bill payments, few are widely used within Malawi. For example, although Airtel Money customers in most parts of Malawi can pay their water and electric utility bills with this service, this service does not appear to have achieved mass uptake, given that there are only 75,000 active users of Airtel Money.

2 Similarly, while mobile banking services can be used to make remote utility payments, customer take-up appears to be low. OIBM has about 66,000 registered customers who make between 4,000-5,000 mobile banking transactions monthly — across all types of transactions, including balance inquiries.

3 Some large businesses have begun paying large suppliers electronically. The Limbe Leaf Tobacco Company uses Standard Bank to transfer funds into their bank accounts. The company noted that smaller suppliers and the government prefer check as a means of payment.

4 Web-based remote bill payment services (e.g. Standard Bank's services) are not widely used within Malawi, given the small proportion of the population with Internet access. The

Lilongwe Water Board advertises online bill payments, but its billing staff was unaware how this service could be accessed.

Use case C: Debit Card at Merchant

Use case assessment: 3.9

Likely to drift without clear trend

This use case consists of an individual making a purchase at a place of business using a debit card on a POS device. This use case does not include any and all varieties of card on POS (i.e. prepaid or credit cards), each of which would carry different risk and cost profiles.⁴⁰ The country team identified debit card at POS as a key use case because consumers decide whether to pay in cash or electronically (where the latter is available) based on a range of factors such as trust in the service provider, speed and efficiency of the service and the price of the service. Debit cards on POS are considered a two-sided market in that consumers must be willing to use cards and merchants must be willing to accept them.

Key findings for debit card transactions at merchants in Malawi include:

1 Lack of efficient and effective interoperability is a key detriment to achieving a shift away from cash to make payments. While some merchants have multiple banks' POS devices and are hence able to accept cards from multiple banks, this type of functional interoperability at merchant level is costly and inefficient, as noted above. Seven of Malawi's eleven commercial banks are not connected via Visa. Local cards cannot be used at a Visa POS, nor can Visa cards be used on proprietary POS devices — making merchants have multiple POS machines. Similarly, cards issued by OIBM and Indebank, the two MALSWITCH banks, can only be used on MALSWITCH POS devices.

2 Co-branding ventures between banks and retailers have not driven significant additional adoption and use of cards to make purchases. MALSWITCH via National Bank offers a smart card with Puma Energy, a chain of fuel stations.⁴¹ However, the Puma card effectively operates as a closed-loop, which caused a number of cardholders to abandon the card when the Puma fueling stations experienced fuel shortages in 2012.



6 Lessons about sequencing and prioritizing the shift

Status of the journey

Cash currently dominates in Malawi and data do not indicate a notable shift toward electronic payments in the country. Just 0.3% of the 221.5 million payments made every month are through electronic means. Individuals and businesses initiate the majority of payment volumes (99.8%) and are overwhelmingly cash-heavy (only 0.2% electronic for individuals and 3.6% for businesses).

Malawi offers an interesting test of the hypothesis presented in the BTCA whitepaper, which proposed that the shift to electronic occurs in three stages – from cash heavy to bulk payer transition (such as G2P); from bulk payer to increasing e-usage (such as P2B); and then from increasing e-usage to cash lite (such as P2P). As Figures 16, 17 and 18 below show, Malawi appears to be following the hypothesized shift process: **a higher percentage of payments are made electronically in shift 1 than shift 2, and shift 3 lags even farther behind.** This is a result of infrastructure that allows for electronic payments— particularly for payments of corporates' suppliers and creditors, and for individual insurance and pension contributions (using debit orders).

FIGURE 16 Number of payments (millions)

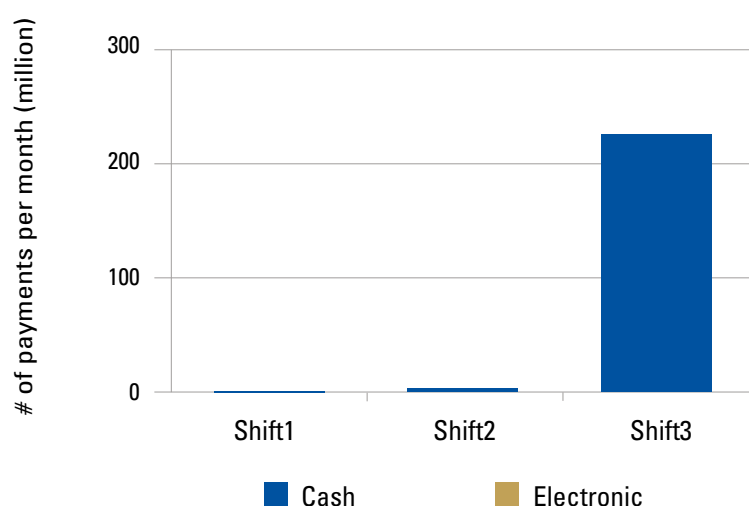


FIGURE 17 Value of payments (USD millions)

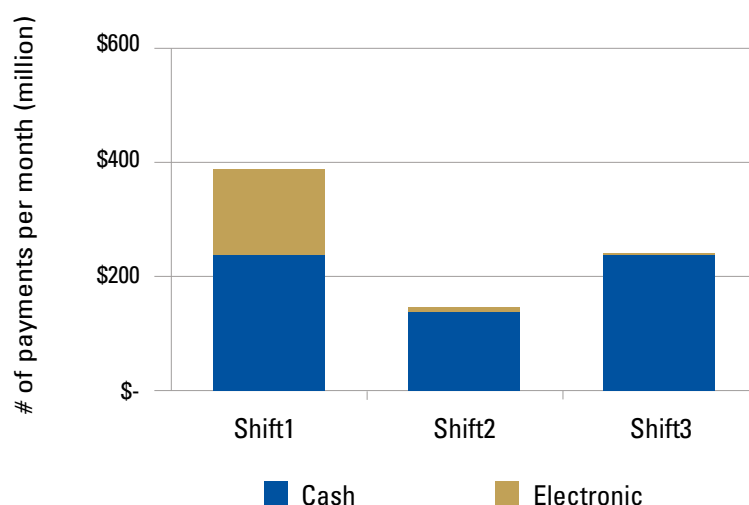
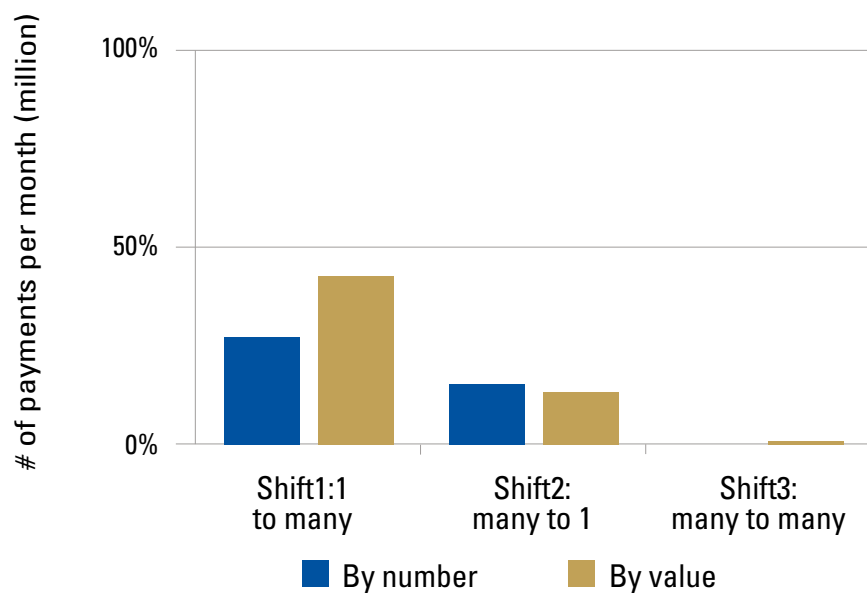


FIGURE 18 Electronic payments as a % of total

Inaction on government payments inhibiting Shift 1

RBM's payment system development and related reform initiatives (through FSTAP and MoF) appear **focused on the right objectives to create a robust enabling environment for electronic payments**: a fully interoperable national switch, a national payment system bill, regulation of interchange fees and consideration of the emergence of MNOs as players in the payments space.

However, despite extensive efforts within the GoM to improve the overall enabling environment for payments, the bulk payer transition has not occurred in Malawi. In fact, **government payments are the most cash dominant of all payment flows within the country**. The dependency on checks stems in part from the inadequate structure and control of IFMIS, which does not easily enable electronic payments and may in fact entrench vested interests within the Attorney General's Office.

Efforts to move to electronic government payments for the country's civil servants and SCTP beneficiaries have yet to come to fruition. Yet the Cashgate scandal clearly exposed the threat of weak, cash-dependent system to good governance, transparency and the battle against corruption in Malawi.

Donor-driven efforts attempting to leap-frog Shift 1

The data reveal **much more activity on electronic payments among and between businesses (B2B) and individuals (bill pay (P2B) and remittances (P2P))**. This may be a product of increased investment by donors in developing financially-

inclusive products and services, pushing for electronic and account-based payments opportunities for individuals as well as businesses.

The MMAP is an ecosystem approach to advancing the mobile money vision for the country, yet the systems are not yet in place to support the several product and service pilots under consideration. And public awareness campaigns aiming to drum up demand for mobile money are also not backed up by the accessibility and liquidity necessary to build trust and confidence in the system.

In fact, even **what appear to be tech-driven D2P payments are extremely limited given current infrastructure**. WFP-coordinated emergency response will use Airtel Money this year for its payments to around 22,000 households, yet these pale in comparison to G2P payments in both volume and values. Even though beneficiaries receive disbursements electronically, they are unable to use the electronic value and continue to have to cash-out. In short, while migration to electronic disbursements might reduce costs for the disbursers such as government and donors, it will not necessarily make beneficiaries' lives easier unless conditions are amenable to the usage of electronic value.

Cost, confidence and access limitations inhibit individual uptake

With 96% of SMME owners preferring to transact in cash, there is **rather little demand articulated for electronic payments at the consumer level**.

Merchants at which electronic payments are accepted are rare and consumers lack certainty as to whether they can pay or cash-out at merchants, even those that purport to offer electronic payment options. Further, consumers can face increased costs for choosing to transact with electronic instruments, as merchants will often add a “surcharge” of up to 4% for card payments. Also, as consumers often encounter problems with handsets or downtime on POS, **they frequently default to cash**.

At the same time, ATMs occasional go off line or run out of cash; queues at banks and ATMs are incredibly long, particularly at the end of the month when payday occurs; and consumers find themselves with few better alternatives than carrying large amounts of cash on them, even for substantial purchases. The utility of electronic payments should be clear, but the systems and incentives are not yet in place to sufficiently support the case for such payments at the consumer level.



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Lack of efficient and effective interoperability has been a key detriment to achieving a shift away from cash to make payments, as it has restricted the effective reach of Malawi's financial services infrastructure. The prevalence of closed-loop and proprietary payment systems currently inhibits the availability of efficient electronic payment opportunities for consumers.

The new national switch – should it roll out as planned with all banks on board and the likelihood of incorporating mobile money issuers – **could help mitigate challenges around interoperability.** This could help to open up new opportunities for electronic payment options that are affordable, trustworthy and consistently accessible to consumers.

7 Proposed **DRFRP** approach in Malawi in 2013/4

Potential case studies

The BTCA diagnostic for Malawi identified several specific stories of shifting from cash to electronic payments in Malawi. Unlike in the other DRFRP diagnostic countries, however, these efforts have been largely unsuccessful, are at a small scale, or are at such an early stage that pursuing cases studies now may not have significant value for BTCA stakeholders in other contexts. Therefore, **no case studies in Malawi are recommended for in-depth study as part of the DRFRP**. Future (non-DRFRP) BTCA research efforts should note the potential opportunities below.

However, one of the corporates interviewed for this diagnostic could be added to the series of case-studies proposed for study in the BTCA Nigeria diagnostic. The payment processes and costs of Carlsberg Malawi (the local Carlsberg and Coca-Cola bottler) could be compared with those of Nigerian Bottling

Company, giving insight into how the infrastructure and incentives of national payments systems can shape the payments behavior of otherwise similar corporates.

1. Donor-driven shifts to mobile-linked social cash transfers

More so than within government, donors in Malawi are pushing more aggressively for bulk payments, predominantly for cash transfers for the poor, vulnerable or excluded. Yet these have to date been administered through closed-loop propriety solutions that have failed to achieve lasting e-payments usage beyond the typical monthly cash-out. This case study would assess the implications of the donor push for mobile payments, particularly for low-income individuals through social cash transfers though a comparative analysis of mobile payments approach in the 2012 vs. 2013 WFP-led emergency response, in which payments are being made by Airtel Money. By evaluating the relationship of emergency response

payments to the larger ecosystem required for effective and efficient shifts, development partners can begin to understand the extent to which such systems can help or hinder the programs' intended outcomes.

For example, the WFP cash transfer program using Airtel Money by and large failed in its 2012 application, but WFP and the emergency response consortium have chosen not only to use it again, but to use it for all payments during the 2013 response. A case study on the outcomes of the latest response could offer lessons for how donors should think about the way these types of payment schemes are structured such that they feed support efforts toward a shift away from cash more sustainably. For instance, are there sequencing lessons for rolling out electronic payments in similar contexts, such as urban vs. rural readiness? It also may offer insights valuable to the MMAP project as it considers investments in pilots and other initiatives related to advancing mobile money solutions for relatively similar populations.

2. Evaluating the use case for POS debit card payments at merchants

One of the core impediments to electronic payments at the individual and business level is a dearth of e-payment options at merchants. This case study would examine the hurdles to uptake and usage (both in supply and demand) of debit-card at merchant POS and what is needed to get cards working and become a desirable means of making and accepting payment. With the national switch, the infrastructure will be in place for interoperable payments with cards, particularly in the better-connected urban areas. But merchant uptake will be critical. The current infrastructure and prevalence of ATM cards on the market would indicate that there is more opportunity for debit POS transactions at merchants than there is for mobile payments in Malawi. At the same time, mobile banking transactions currently dwarf POS transaction (by over 40 to 1, per data collected as of July 2013), as do MNO-led mobile payments (19 to 1). This may indicate the incredible need for advancement of POS system effectiveness, relatively higher demand for mobile money transactions, or perhaps most likely, a combination of the two.





ANNEX A: LIST OF ACRONYMS

ACH	Automated Clearing House	MMAP	Mobile Money Accelerator Project
AG	Accountant General	MMCG	Mobile Money Coordinating Group
ATM	Automated Teller Machine	MMI	Mobile Money Issuer
B	Business	MNO	Mobile Network Operator
BAM	Bankers Association of Malawi	MoF	Ministry of Finance
BFA	Bankable Frontier Associates	mPOS	Mobile POS device
BTCA	Better Than Cash Alliance	NPC	National Payment Council
CCT	Conditional Cash Transfer	NPS	National Payment Strategy
D	Donor or Development Partner	OIBM	Opportunity International Bank Malawi
DDA	Demand Deposit Account	OTC	Over the counter
DNS	Deferred Net Settlement	POS	Point of Sale
DRFRP	Development Results Focused Research Program	P	Person
FSTAP	Financial Sector Technical Assistance Program	RTC	Real Time Clearing
GDP	Gross Domestic Product	RTGS	Real Time Gross Settlement
GNI pc	Gross National Income per capita	SADC	Southern African Development Community
G	Government	SCTP	Social Cash Transfer Program
GoM	Government of Malawi	SMME	Small, Medium and Micro Enterprises
IBFT	Inter-Bank Fund Transfer	SMS	Short Messaging Service
IFMIS	Integrated Financial Management Information System	STP	Straight-Through-Processing
IMF	International Monetary Fund	TSA	Treasury Single Account
KYC	Know your Customer	UNCDF	United National Capital Development Fund
MDR	Merchant Discount Rate	USAID	United States Agency International Development
MFIs	Micro Finance Institutions	USD	United States Dollars
MGDS	Malawi Growth and Development Strategy	WB	World Bank
MITASS	Malawi Interbank Transfer and Settlement System	WFP	World Food Program
MM4P	Mobile Money for the Poor		

Unless otherwise stated, exchange rate used is the 30-day average exchange rate for October 2013:
\$1 USD = 363.23 MKW.

ANNEX B: DETAILED PAYMENT GRID

Definitions

The measurement component of the BTCA diagnostic has three main goals: The first is to evaluate the current status of the shift to electronic payments. This snapshot of the payments landscape provides a baseline to aid the Malawian government in its efforts to strategically shift concentrations of cash and evaluate the impact of policy efforts. The second is to identify and catalogue best practices and cost-effective approaches to determining the baseline. The third is to provide insight into knowledge gaps and priorities for the recommendation of additional measurement activities.

The diagnostic includes an estimated number of payments between each pair of parties in the country: payers (government, G; businesses, B; persons or individuals, P; and development community partners, D) and payees (G, B and P). Though values are captured, the focus is on the volume of payments. This is to highlight the progress of financial inclusion, a key area of interest for BTCA stakeholders, and one where payments are low-value and high-volume; government and business payments may dominate values, but individuals make the most number of payments in an economy. Specific payment data points included may vary slightly according to what information is available and relevant to the payments story in each country. Note that payment figures exclude:

- Payments between financial intermediaries (interbank payments) since these are usually to settle underlying transactions that have been made or else related to investment only; and
- Payments between accounts of the same party (inter own account transfers) or between different stores of value (account to cash) of the same party (e.g. ATM withdrawals).

But that they include:

- Payments between overseas workers and receivers in-country (international remittances)

The estimated proportion of electronic payments refers to the proportion of the number of payments (as opposed to value) that are initiated electronically.

Payment grid

	# payments per month	% electronic by volume	# payments electronic	Avg. value per payment MWK	Avg. value per payment USD	Total value MWK	Total value USD	% electronic by value	Sources
G2P	216,121	0%	-	29,808	89	8,923,236,025	26,660,309	0%	
Government: Employees National	170,000	0%	-	47,630	142	8,097,148,500	24,192,174	0%	Accountant Gen, Min of Fin
Government: Employees Local	4,707	0%	-	47,630	142	224,195,325	669,837	0%	Ntl Local Gov Fin Committee
Government: Pensioners	27,000	0%	-	20,370	61	550,000,000	1,643,257	0%	Accountant General
Government: Social transfer	14,415	0%	-	3,600	11	51,892,200	155,040	0%	Ministry of Gender
G2B	172,099	1%	11	213,618,847	638,238	21,026,518,423	62,821,770	12%	
Government: National suppliers	1,845	0%	-	6,486,637	19,380	11,967,845,127	35,756,810	0%	Ministry of Finance
Government: Local suppliers	236	0%	-	6,486,637	19,380	1,531,714,369	4,576,364	0%	Ntl Local Gov Fin Committee
Government: Ag subsidy suppliers	7	0%	-	620,266,379	1,853,195	4,341,864,654	12,972,363	0%	Ministry of Finance
Government: Domestic interest	11	100%	11	221,235,735	660,995	2,433,593,083	7,270,943	100%	Ministry of Finance
Government: Pension contributions	170,000	0%	-	4,421	13	751,501,189	2,245,290	0%	Ministry of Finance
G2G	298	36%	106	105,380,059	314,848	6,977,114,007	20,845,803	5%	
Government: Ntl intra-agency transfers	57	0%	-	40,472,544	120,921	2,306,935,000	6,892,522	0%	Ministry of Finance
Government: National to local	15	0%	-	106,698,605	318,788	1,600,479,069	4,781,815	0%	Ministry of Finance
Government: National to public entities	64	0%	-	29,124,247	87,016	1,863,951,818	5,569,003	0%	Ministry of Finance
Government: Ntl to revenue authorities	2	0%	-	347,406,151	1,037,959	694,812,302	2,075,919	0%	Ministry of Finance
Government: Local to local councils	160	67%	106	3,198,746	9,557	510,935,818	1,526,543	67%	Local Development Fund
Government total	388,518	0%	117	106,342,904	317,725	36,926,868,455	110,327,882	8%	
B2P	1,258,595	14%	181,326	96,367	288	60,877,519,925	181,886,201	36%	
Large businesses: Employees	205,600	87%	179,427	234,237	700	48,159,032,038	143,886,666	45%	NSO
MSMEs: Employees	1,050,320	0%	-	12,000	36	12,603,840,000	37,656,997	0%	FinScope
Businesses: Pension payouts	2,675	71%	1,899	42,865	128	114,647,887	342,538	57%	RBM, insurance providers
Businesses: Insurance payouts	367	95%	349	84,000	251	30,853,081	92,181	95%	RBM, insurance providers
B2B	4,149,125	1%	31,094	871,373	2,603	49,845,747,169	148,926,133	59%	
Large businesses: Suppliers & creditors	197,112	16%	31,012	201,072	601	39,633,750,000	118,415,340	74%	NSO
MSMEs: Suppliers and creditors	3,949,920	0%	-	1,808	5	7,141,446,464	21,336,785	0%	NSO
Businesses: Pension contributions	1,768	5%	81	1,388,008	4,147	2,453,450,704	7,330,273	5%	RBM
Providers: Pension payouts	326	0%	-	1,894,605	5,661	617,100,000	1,843,734	0%	RBM, insurance providers
B2G	464,191	0%	-	66,702	199	24,241,366,651	72,426,901	0%	
Businesses: National taxes	87,659	0%	-	163,914	490	14,368,475,276	42,929,268	0%	Ministry of Finance
Businesses: Local taxes, permits, fees	79,428	0%	-	4,041	12	320,997,776	959,058	0%	NSO, utilities providers
Public utilities	297,104	0%	-	32,150	96	9,551,893,600	28,538,575	0%	Utility company
Business total	5,871,911	4%	212,419	344,814	1,030	134,964,633,745	403,239,235	38%	

	# payments per month	% electronic by volume	# payments electronic	Avg. value per payment MWK	Avg. value per payment USD	Total value MWK	Total value USD	% electronic by value	Sources
P2P	388,283	7%	29,047	78,640	235	3,666,193,588	10,953,633	51%	
People: Intl remittances outgoing	5,893	100%	5,893	277,481	829	1,635,217,215	4,885,604	100%	RBM
People: Intl remittances incoming	17,679	21%	3,730	26,820	80	474,159,956	1,416,667	21%	
People: Domestic remittances	94,289	21%	19,424	6,912	21	651,713,435	1,947,150	21%	
People: Loan payments (informal)	270,421	0%	-	3,347	10	905,102,981	2,704,212	0%	NSO
P2B	214,481,381	0.23%	482,605	9,717	29	69,415,954,655	207,356,824	9%	
People: Purchases	212,150,553	0.01%	14,508	265	1	56,130,081,656	167,702,090	0.50%	NSO
People: Bill pay for housing & utilities	357,680	0.03%	100	10,078	30	3,604,586,348	10,769,567	0.06%	NSO
People: Loan payments (formal)	1,582,213	12%	188,347	4,561	14	7,125,258,175	21,288,419	71%	NSO
People: Pension payments	156,936	48%	75,078	8,087	24	1,269,175,000	3,791,965	48%	RBM
People: Life insurance payments	222,749	92%	204,573	957	3	213,270,142	637,196	92%	RBM, insurance providers
People: General insurance payments	31,250	0.00%	-	34,355	103	1,073,583,333	3,207,588	0%	RBM, insurance providers
P2G	334,503	1%	2,251	30,765	92	8,369,030,754	25,004,488	2%	
People: National taxes	34,318	0%	-	37,993	114	1,303,858,058	3,895,589	0%	Ministry of Finance
People: Bill pay for gov owned utilities	300,185	1%	2,251	23,536	70	7,065,172,696	21,108,899	2%	NSO, utilities providers
People total	215,204,166	0.24%	513,904	39,707	119	81,451,178,996	243,354,946	10%	
D2P	32,530	80%	25,937	101,449	303	1,132,677,695	3,384,146	89%	
Dev. Partner: Local employees	2,730	90%	2,457	278,918	833	761,445,106	2,275,000	95%	International organization
Dev. Partner: Social welfare	29,800	79%	23,480	12,457	37	371,232,590	1,109,146	79%	
Donor total	32,530	80%	25,937	101,449	303	1,132,677,695	3,384,146	89%	

Methodological deep-dives

Quantifying the payments made in the Malawi required a number of assumptions and calculations where data were unavailable, incomplete, or unreliable. This section details the approaches used for the G2P and P2B cells in the payment grid.⁴²

G2P: Limited government payment data is available online

The BTCA diagnostic team calculated key metrics for G2P payments from a variety of government sources, as shown in Tables B1 and B2 below.

TABLE B1 High level view of government-to-person payments

Total number of payments per month	% electronic (by volume)
216,121	0%

TABLE B2 Monthly G2P payments in Malawi

	# pmts per month	% vol elec	# pmts elec	Avg. value per pmt USD	Total value USD	% value elec
Employees National	170,000	0%	-	142	24,192,174	0%
Employees Local	4,707	0%	-	142	669,837	0%
Pensioners	27,000	0%	-	61	1,643,257	0%
Social transfer	14,415	0%	-	11	155,040	0%
G2P Total	216,121	0%	-	89	26,660,309	0%

This diagnostic calculated government-initiated payments using information gathered from interviews with multiple ministries and government agencies and from national and local finance ministries' budgets. The measurement assumes that there are three categories for G2P payments: salary payments, pension payments and social transfers (including subsidies).

The total value for national government was obtained from the Ministry of Finance annual budget, available on the Ministry's website and confirmed through an in-person meeting with a Ministry official. The total value for the local government was obtained from the National Local Government Finance Committee end of year report, which was made available after an in-person request to the Executive Secretary National Local Government Finance Committee. The National Local Government Finance Committee also provided the number of local government employees, whereas the Accountant General's office provided the number of national civil servants, emphasizing that the number of employees fluctuates by month: In May, the Accountant General's office reported 139,477 civil servants, compared to August when there were about 170,000. The Accountant General's office also provided the information about pensioners.

Data on the Ministry of Gender's Social Cash Transfer program, which has been driven with much international donor influence and support, was obtained in a meeting and follow up request to the Ministry of Gender and its partner, Ayala Consulting, which is setting up the program to move to electronic payments through mobile money. The first electronic payments are tentatively scheduled to occur in December, with registration having begun in September. Sources are also available online, though the Ministry of Gender and Ayala Consulting provided more up-to-date information.

P2B: Estimating how individuals transact with business

Broken down into three categories – purchases, bill pay, and pension and insurance contributions – the diagnostic team calculated key metrics for P2B payments from a variety of sources, as shown in Tables B3 and B4 below.

TABLE B3 High level view of people-to-business payments

Total number of payments per month	% electronic (by volume)
214,481,381	0.23%

TABLE B4 Monthly P2B payments in Malawi

	# pmts per month	% vol elec	# pmts elec	Avg. value per pmt USD	Total value USD	% value elec
Purchases	212,150,553	0.01%	14,508	1	167,702,090	0.5%
Housing and private utilities	357,680	0.03%	100	30	10,769,567	0.06%
Loan payments (formal)	1,562,213	12%	188,347	14	21,288,419	71%
Pension payments	156,936	48%	75,078	24	3,791,965	48%
Life insurance payments	222,749	92%	204,572	3	637,196	92%
General insurance payments	31,250	0%	-	103	3,207,588	0%
P2B Total	214,481,381	0.23%	482,605	29	207,396,824	9%

To estimate purchases and bill pay, the diagnostic team relied on information from multiple sources, primarily the 2010/11 household survey report and 2008 census report from the National Statistics Office (NSO), available on the NSO website, and information from RBM, Multichoice (DSTV provider) and Malawi Microfinance Network (MAMN), provided directly to the diagnostic team.

The 2010/11 household survey provides aggregate per capita consumption for twelve expenditure categories. The diagnostic team classified these into two categories: purchases and bill pay.⁴³ Rental payment volumes were derived using the 2008 census data that provide the percentage of households renting their residences. Without Malawi-specific research on the volumes of purchases, the diagnostic team calculated the volumes of purchases payments using proprietary data from Kenya and India on the average number of payments that households make per month. The value and volume of electronic payments for purchases was estimated based on the RBM-reported average monthly value and volume of POS transactions from January 2012 through July 2013.

Loan payment volumes were derived from the World Bank Findex data and include the percentage of the population ages 15 and above who have taken a loan from a financial institution, private lender or employer in the past year. The loan values were derived from a MAMN report that provides the average value per loan of five MFIs, plus estimated average interest rates from the World Bank and mfttransparency.org. Pension and insurance payment estimates were derived from data provided by major pension/insurance providers following meetings and formal requests and supported by the RBM's 2012 Pension and Insurance Annual Report.

ANNEX C: BTCA COUNTRY DIAGNOSTIC COMMON METHODOLOGY

Measurement and data quality

The measurement approaches uses all available data to compile the payments grid as accurately as possible as described in detail in Annex B for Malawi. This process involves finding and analyzing a wide range of different data sources of different time intervals and quality. In some cases, extrapolation or interpolation is necessary to make up for gaps in data availability. For this reason, and to be explicit about the basis from which data is drawn, the data relating to each payer group in the grid is assessed for data quality and availability, as shown in Table C1 below.

TABLE C1 Data quality ratings

Rating	Data quality	Data availability
5	Complete, recent, and from credible sources	Available from one or few up-to-date websites or online publications
4	Recent and from credible sources. 1-2 components of estimate based on expert opinion or assumptions.	Available from disparate web sites or from a combination of scholarly and popular publications
3	Incomplete, recent, and based on expert opinion or available data. Few assumptions required.	Available in-person through simple records requests or interviews with public-facing officials
2	Incomplete and/or outdated, and informed by local sources, ad hoc research, and international heuristics. Some assumptions required.	Available from proprietary sources through non-disclosure agreements
1	Incomplete and/or outdated, and informed by local sources, ad hoc research, and international heuristics. Multiple assumptions required.	Additional measurement activities required to capture meaningful data

The overall scores cited on the first page are simple averages across the underlying picture.

Trajectory scores

To understand the trajectory of the move towards electronic payments in a country and the likelihood that the momentum may change, the diagnostic focuses on selected payments use cases; and then considers the infrastructure and incentives supporting each.

Use cases

A payment use case is a cluster of characteristics (the store of value, the nature of the instrument itself and the channels through which it is initiated) around a common payment application. For example, bulk credit transfers involve transfers across bank accounts under rules particular to the automated clearinghouse involved, which can be initiated in branch or via channels such as Internet or dedicated line.

Ratings

The propensity for this use case to accelerate the shift to electronic payments is assessed using the scale shown in Table C2.

TABLE C2 Use case trajectory ratings

Rating	Conditions & incentives are such for this use case that it is:
1	Highly likely to support a full shift
2	Possible to achieve a full shift
3	Likely to lead to slow incremental progress
4	Likely to drift without clear upward trend
5	Unlikely to lead to shift

To get to an overall rating, a process of interviews and in-country engagement leads to an assessment of the infrastructure and the incentives of each of the key constituencies in the payment eco-system — government, business, financial providers and consumers — to use this instrument for the accompanying shift. As shown in Annex D for this country, the overall score for each use case is the simple average of the underlying ratings across each category, although the scores for each category are not simple averages of the underlying sub-categories. This is because the sub-categories are not weighted; so the category score is assigned based on an overall assessment taking into account the sub-category scores.

Glossary of general payment terms used⁴⁴

Term	Definition
ACH/ Automated Clearing House	An electronic clearing system in which payment orders are exchanged among financial institutions, primarily via magnetic media or telecommunications networks, and handled by a data processing centre.
Gross Settlement System	A transfer system in which the settlement of funds or securities transfer instructions occurs individually (on an instruction by instruction basis).
Large Value (wholesale) Payments	Payments, generally of large amounts, which are mainly exchanged between banks or between participants in the financial markets and usually require urgent and timely settlement.
“Not on us” & “On us”	Payment terms which refer to whether a payment is made in the accounts of the same financial institution (on us) or across financial institutions (not on us).
Payment Instrument	Any instrument enabling the holder/user to initiate the transfer of funds or make a payment.
Payment scheme	A term used for a payment system which includes a brand and set of rules licensed by the owners to the participants, such as the international card association schemes.
Payment service provider (PSP)	Entity that does not participate directly in a payments system but specializes in managing payment transactions for the public.
Payment stream	A cluster of payment use cases.
Payments system	A payments system consists of a set of instruments, banking procedures and, typically, interbank funds transfer systems that ensure the circulation of money.
Payment use case	A description of an individual payment that identifies the payment’s store of value, the payment instrument used, and the channel through which payment instructions are issued.
Real-Time Gross Settlement (RTGS) System	The system used to effect continuous (real-time) settlement of funds or securities transfers individually on an order by order basis (without netting).
Switch	In payment context: an electronic software program which enabled different devices and financial operating systems to connect for the purpose of exchanging information.

ANNEX D: USE CASE TRAJECTORY SCORES

TABLE D1 Summary of ratings

	Mass electronic credits	Remote bill payment	Debit card at merchants
Country environment	3	3	3
Legal environment for e-payments sufficiently clear and certain to support shift	3	3	3
The communications and processing infrastructure supports robust transaction processing	2	2	3
There are a variety of providers offering the service defined in priority use cases on a competitive basis	3	3	3
The oversight environment for payments is clear and certain	3	3	3
The settlement and clearing infrastructure supports the defined use case	3	3	3
Government	4	4	4
There is a clearly identified national lead agency responsible for the shift to electronic	4	4	4
The lead agency has the mandate and qualified resources sufficient to coordinate the shift across departments/agencies	4	4	4
The national government at least monitors centrally and preferably publishes data on the extent of electronic payments	4	4	4
There is a law or binding regulation requiring transition to electronic for some of all of government	4	4	4
There are well documented credible examples of cost-benefit analysis — awareness of benefits	5	5	5
The payment instruments exist to service the main use cases defined by government	2	2	2
Service providers	3	3	3
Providers see value in providing this service through electronic payments	2	2	2
Providers can monetize the value of offering this service through electronic means	2	2	2
Providers are willing to make the necessary investments required to offer this service	3	3	3
Providers consider this service important and therefore market it appropriately	3	3	4
Non-financial businesses	3	3	4
The perceived advantages of shifting exceed disadvantages	3	3	4
There is no stigma attached to electronic channels as result of recent or major experience of loss	3	3	3
There are additional incentives offered to use electronic	3	3	4
Cash payments are restricted or else electronic payments required by law in defined circumstances	2	2	2
Cost of cash studies have been performed on categories of business payment and published	4	4	4

	Mass electronic credits	Remote bill payment	Debit card at merchants
Consumers	4	4	4
There is no history of major scandal or disrepute associated with electronic payments in the past 5 years	3	3	3
There is no widespread distrust of financial institutions among the general public	3	3	3
There is a ubiquity of points at which cash can be exchanged for electronic value in an account and vice versa	4	4	4
Individuals consider the risk of electronic theft less or lower than risk of cash theft	4	4	4
Many people have electronic accounts through which they can conduct electronic payments	4	4	4
Overall	3.6	3.8	3.9

	Mobile money
Development partners	3.75
Development partners measure the cost off cash in their operations or the operations of their implementing partners	4
Development partners can identify success stories in the country of using electronic payments	4
Development partners have identified a measured benefit of electronic payments on recipients over cash	4
Development partners have identified a range of electronic payment providers, on a competitive basis, to partner with	3

ANNEX E: SUPPORTING ANALYSIS FOR SECTION V: PAYMENTS INFRASTRUCTURE AND PROPENSITY TO SHIFT

Key gaps exist in the legal infrastructure for the NPS, but some key changes are being made to rectify this

As noted in Section V, **there are several key gaps in the legal infrastructure for the National Payment System (NPS)**, which Malawi is trying to resolve. There is currently no NPS Act hence RBM as payment overseer must rely on the Reserve Bank Act (updated in 2010) and the Banking Act (1989) to lay “adequate foundations for the development of a sound banking system and financial markets” according to a review of Malawi’s NPS by the Bank of International Settlements.⁴⁵ However, the passage of the draft NPS Bill (prepared in 2002⁴⁶), which the Minister of Justice was planning to present to committee in October 2013, would provide a sound legal basis for the regulation and oversight of the payment system.⁴⁷ Among other powers, the NPS Act would allow the RBM to officially designate payment systems for direct regulation.

Several recent developments highlight the RBM’s attempts to bring greater certainty to electronic payments. The RBM’s **E-money Service Provider Regulations** (2013), currently in draft form, would require all e-money service providers to be registered with the RBM and comply with AML/KYC requirements. Similarly, the RBM’s **Guidelines for Mobile Payment Systems**, issued in 2011, establish the RBM’s authority to grant approval to both bank and non-bank “payment models” while providing clarity as to customer activation procedures, messaging standards and settlement procedures. The RBM has authorized two mobile payments schemes to date, those of Airtel and of TNM, the principle mobile network operators (MNOs) in Malawi. These are however not yet underpinned with the legal certainty the National Payments System Act will provide.

The RBM is currently drafting a revision of the **National Payment System Vision and Strategy Framework**, (covering the period from 2014 to 2019) which will affirm the principles, objectives and priorities for Malawi’s NPS going forward.

Architecture of the NPS

Malawi’s NPS supports a range of payment streams including electronic funds transfer (EFT) debits and credits, checks, ATM transactions, point of sale (POS) terminals accepting debit and credit cards and mobile financial services. The interoperable payment systems are currently cleared through the country’s two domestic switches and settled via the RTGS. The RBM owns the Malawi Interbank Transfer and Settlement System (MITASS), Malawi’s RTGS system, which processes high-value transactions (and settlement for checks) between financial service providers. It relies on an Automated Transfer System (ATS) and is moving toward same-day (T+0) clearing and settlement. MITASS currently does not feature straight-through processing (STP), which has made inter-branch RTGS bank transfers expensive at approximately MWK 5000 per transfer. RTGS requires STP to enable the efficient and effective movement of high value funds.

Malawi has done significant work in recent years to ensure that settlement occurs according to international ‘good practice.’ All settlement occurs via MITASS on a net settlement basis, with each settlement bank having a pre-funded account with the RBM. This includes interbank Visa related ATM and POS transactions, which are cleared by VisaNet, an offshore international switch. The RBM is currently upgrading its RTGS and this will include add-on modules for check and for EFT debits and credits to be cleared and then settled via MITASS.

Malawi has also established a full check truncation clearinghouse in its **Electronic Check Clearing House (ECCH)**, which is owned by the Bankers Association of Malawi (BAM) and operated by MALSWITCH. Its clearing members consist of nine commercial banks and the RBM, who use image and code line capture to reduce the amount of time required to clear and settle checks. Checks generally require three days to clear and may take up to seven days in rural areas, according to interviews with a large business operating in the agricultural sector.

Malawi's NPS presently features two domestic switches. **MALSWITCH** was founded and fully funded by RBM in 1999. For numerous reasons, it has been operating independently of RBM since 2006 and currently has only two member banks (down from a higher number earlier), namely OIBM and Indebank. MALSWITCH was originally intended to be the national switch but due to its structure, ownership, governance, standards and numerous other factors, did not play that role. Banks that have used MALSWITCH in the past have moved to link to more interoperable switches, such as China Union Pay, MasterCard, Diners and AMEX. The proposed national switch, which is in the process of being implemented, is likely to further reduce MALSWITCH's role (see below). In addition to clearing and closely related services, MALSWITCH has been developing its business to support a range of electronic payments solutions including ATM and POS devices. These services have been developed as the role of clearing payment instruments for participants has diminished.

In terms of governance, both multilateral and bilateral clearing agreements are used for RTGS and for ECCH. The majority of these agreements, though, have not been tested in court. The need to ensure strong and appropriate governance in the interbank/participant arena is critical to ensure trust and certainty.

Interoperability

VisaNet, which provides processing services for interbank transactions for VISA bank members, currently counts four commercial banks as members: NBS Bank, FMB, Standard Bank and National Bank. These are the only four commercial banks in Malawi which are effectively interoperable at present for ATM and POS. VisaNet performs clearing and other value-adding services offshore for member banks on POS and ATM devices but settles within Malawi via MITASS. It remains unclear whether the VisaNet banks will be required to utilize the forthcoming national switch to perform the clearing services for domestic Visa (ATM and POS) transactions.

Many banks issue a "local" debit card that can be utilized on proprietary networks for POS and ATM. These are currently not interoperable. Plans are being discussed such that the national switch will provide clearing services for these cards.

Therefore any bank card cannot be used at any bank POS or ATM, consumers are restricted to using ATM's of banks that either belong to the local switch (3 banks) or the Visa-linked banks (4 banks) or else they can only utilize their banks' infrastructure, all of which hinders convenience for the customer and creates uncertainty. The implementation of the national switch may overcome this.

The manner in which banks can develop a fully interoperable solution for all bank-issued cards (local and Visa) is not clear and may require acquirers, i.e. ATM and POS providers, to belong to both the local and Visa scheme in order to enable interoperability.

Interchange

RBM has paid significant attention to interchange. Interchange rates on not-on-us ATM transactions had ranged between 3%-5% of the value of the transaction, but, following recent intervention by the RBM, these are now set to roughly USD 1 per transaction (taking into consideration reduced Visa rates for the same transactions). Interchange fees are effectively passed on to the customer. If interchange rates are too low, they can remove incentives for participants to allow other banks to utilize their network and may lead to a decrease in ATM and POS transactions; equally, if interchange rates are set too high, consumers and merchants will not utilize the system, further entrenching the use of cash.

Implementation of a national switch

The national switch, currently being implemented by the RBM and the banks through the Bankers' Association of Malawi (BAM), will represent a key change in Malawi's NPS. Scheduled to go live in April or May 2014, the national switch will be run under the auspices of BAM and will have all 11 commercial banks in Malawi as members and shareholders. Most of the banks will be connected to the switch before the end of 2014. RBM will then issue directives related to the switch.

The plan is for Mobile Money Issuers (MMIs) to join the national switch as members during a subsequent phase of implementation for select transaction types; it is not currently envisaged that MMIs will be shareholders. MMOs are not licensed under the Banking Act, although the pending NPS Act would provide RBM with the power to manage this.

The national switch will cater to a variety of payment streams including interbank ATM and POS transactions. The national switch will process payments for both local cards as well as for Visa- and MasterCard-branded cards. However, as noted above, this will not improve interoperability levels. There will be one Automated Clearing House (ACH) agreement per relevant payments use case grouping, i.e. one for each comparable risk use case, including check clearing.

The participants will manage the switch via a holding company, with the 11 shareholding banks planning to divide ownership of the switch equally among them. BAM intends to undertake an examination of interchange levels. The switch will adopt a utility approach in that it will provide only clearing and closely related services; it will not offer value-added services so as to avoid competing with its members or other payment providers.

The switch is intended to support the principle of single acquiring for all interoperable payment streams, including cash-in/out merchants. One participant would be responsible for introducing them into the system to enable clear management of risks. The RBM must negotiate several potential stumbling blocks if it is to achieve this objective.

For one, banks may view MMIs as competition, which could be problematic given that they will be the owners of the national switch while the MMIs will not be. This will require the RBM to ensure appropriate access to the NPS for the relevant payment use cases for MMI's.

Liquidity issues may also be hampering the development of an open, interoperable network of cash-in/out merchants. Consumers lack certainty as to whether they can cash-out at merchants at the time of their choosing, which has encouraged them to remain with cash. Additionally, consumers have found it difficult to transact electronically rather than in cash for a range of reasons including the cost of transacting, problems encountered with handsets (not dissimilar from problems, e.g. downtime, with POS devices). Lack of familiarity with mobile money may also be an issue. Given the infancy of mobile money in Malawi, this will take some time to overcome these challenges.

The RBM and the banking industry appear committed to and are taking necessary measures to fill gaps in the NPS architecture and infrastructure to improve interoperability and governance. In addition to the pending NPS Act which will grant the RBM specific powers such as designating payment systems, the RBM and industry have begun having discussions around appropriate interchange levels and the use of multilateral agreements, i.e. one interchange price for all, as well as extending ACH agreements for all payment systems. The keystone to drive further development of the NPS is the passage of the NPS Act.

Retail payments infrastructure

The penetration of Malawi's retail banking infrastructure remains limited: the number of bank branches, ATMs and POS devices is low both in absolute terms and when standardized against the size of the population (as shown in Table 1 in Section II).

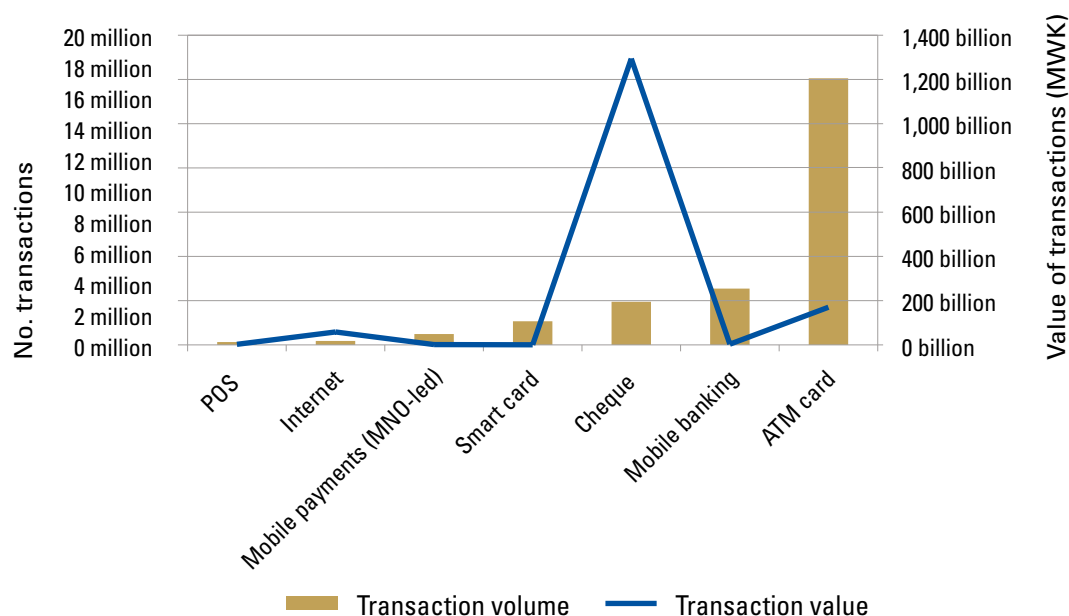
Lack of efficient and effective interoperability has played a role in restricting the effective reach of Malawi's financial services infrastructure. While the ATMs and POS devices of the four VisaNet banks are interoperable within this network, other banks have each put in their own devices, leading to interoperability at the merchant level (i.e. the merchant has multiple devices to enable acceptance of various banks customers); however, this has driven up costs. Nor are the schemes of MasterCard, Visa, China Union Pay and local card issuers interoperable at an acquiring level. Five of Malawi's eleven commercial banks are members of neither MALSWITCH nor VisaNet and are effectively islanded.

MALSWITCH provides a cautionary tale of implementing interoperability. MALSWITCH's original network of 69 ATMs now stands at just over 20 machines, with many POS devices also having been withdrawn. **This underscores the importance of achieving greater efficient and effective interoperability in Malawi to permit greater utilization of existing infrastructure and growth.**

Usage of non-cash payment instruments

A range of instruments is available to Malawians seeking to perform payments without the use of cash; these transactions are however not necessarily electronic (e.g. checks) or actual payments (i.e. ATM cash withdrawals). For instance, by transaction volumes, ATM cash withdrawals were the most frequently used transaction type, although these are not payments but rather conversions of value from electronic to cash. Still Figure E1 below suggests that the volume of ATM cash withdrawals greatly exceeded the number of mobile banking transactions⁴⁸ as well as checks, which are not electronic and carry large risks.

FIGURE E1 Value and volume of non-cash transactions in Malawi for 2012⁴⁹

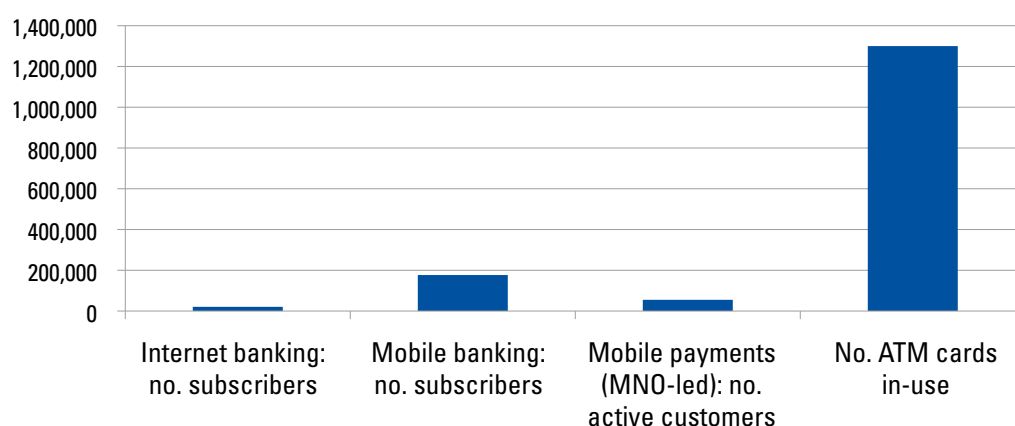


Source: RBM.

Not included in the figure above are the volumes and values for wholesale/large-value payments. The aggregate amount for these file settlement instructions (FSIs) was far higher than for the retail payment instruments listed above (MWK 5.6 trillion in 2012). However, this resulted from a far smaller number of transactions (55,815).⁵⁰

There appear to be far more cardholders in Malawi than there are users of Internet banking, mobile banking or mobile payments, as per Figure E2 below:

FIGURE E2 Number of subscribers/active customers/cards in use in Malawi (2012)



Note: mobile payments figures use a 90-day period to define active customers

Note 2: RBM statistics on card relate only to ATM cards

Source: RBM.

Current interoperability levels provide crucial context for understanding these figures. As noted previously, seven of Malawi's eleven banks are not part of the VisaNet network. Most of these banks issue proprietary local cards, which do not function on POS machines provided by the four VisaNet banks; equally, Visa cards cannot be used on proprietary POS. A similar situation exists for ATMs.

EFT debits and credits are both processed by the relevant modules under MITASS. In general, consumer trust and understanding of these payment mechanisms is lacking, which has limited their usage. Nor are these instruments cheap: a standing order costs MWK 1150 to "establish" as well as an additional MWK 1100 as a "processing fee" per payment.⁵¹ In short, in many cases **EFT debits seem to be neither affordable nor trusted in Malawi.**

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ANNEX G: ORGANIZATIONS AND INDIVIDUALS INTERVIEWED

Organization	Individuals
Accountant General	Martha Mkandawire, Head of Pensions Nicomdem Kalambo Jotie, Government-wide payroll and advances Sam Kaomba, IT
Airtel Malawi	Bigboy Makoloma – Operations & Projects Manager – Airtel Money S. Chilima-Managing Director Alice Tenthani
Catholic Relief Services	D. Shomberg-Country Representative
Auction Holdings	E. Matabwa-CEO
Bankers Association of Malawi	L. Nkungula-CEO
CARE Malawi	G. Kumwenda
Carlsberg Malawi	Abel T. Chanje, Chief Executive Officer Christoff Delpert, Chief Financial Officer
Central Region Water Board	G. Sageme-Acting CEO
Civil Servant Trade Union (CSTU)	Elijah C.D. Kamphinda, President
Department of Human Resource Management and Development	Mr. Madula-Principal Secretary
DFID	Hendricks Phiri, Economist
Electricity Supply Corporation of Malawi (ES-COM) Lilongwe Office	Ngwile Mwenifumbo, Regional Manager for Centre
Farmers Union of Malawi	P. Kapondamgaga-CEO Jacob Nyirongo, Director of Policy and Institutional Development Duncan Warren, Policy and Programs Development Advisor
FHI360	C. Hasselback-Project Director K. Kanjo-Chief of Party, MMAP
FMB	Florence Chisambiro (CEO's Secretary)
FSTAP	M. Mwale Sadat Sadik
G4s	Nargis Khan
KfW	Dr P. Rudolph-Director
Indigenous Business Association	M. Mlombwa-President
Lilongwe Water Board	D. Gonani -CEO
Limbe Leaf Tobacco Company	Douglas Meisel-Assistant Managing Director
Lilongwe District Council	F. Mukandawire-District Commissioner
Local Development Fund	S. Kakhobwe-CEO
Malawi Communications Regulatory Authority (MACRA)	L. Kambale E. Mwapasa
Malawi Confederation of Chambers of Commerce and Industry (MCCCI)	C. Kaferapanjira-CEO
Malawi Congress Trade Union (MCTU)	M. Chauluka-President Pontius Kalichero-Secretary General
Malawi Investment Promotion Agencies has now merged with Malawi Export Promotion Council to form Malawi Investment and Trade Centre (MITC)	C. Kumbemba-CEO

MALAWI COUNTRY DIAGNOSTIC

Malawi Microfinance Network	Mthwalo W. Mafuleka, Finance and Administration Officer
Malawi Posts Corporation	A. Kumbatira-Post Master General
Malawi Revenue Authority	James Manuel Kenani, Tax Policy Research Manager
Malawi Savings Bank	Ian Bonongwe-CEO
Malawi Union for the Informal Sector (MUFIS)	Mr. Mhango-President
Malawi Union of Savings and Credit Cooperatives (MUSCCO)	Fumbani Nyangulu, Head of Financial Services & Business Development Daniel Imfa, ICT Manager
MALSWITCH	Godwin Chinseu-Branch Manager
MicroSave	
Ministry of Finance	Mr. F. Zhuwao-Director of Economic Affairs Kettie Mbalame Mada Mandiwa Daniel Jenya- Economist
Ministry of Gender, Children and Community Development	M. Shaba (Phd)-Principal Secretary 1 and Ms E.M Tembo-PS 2 Kyle Denny, Resident Consultant, Ayala Consulting Chantal Elmont, Resident Consultant, Ayala Consulting
Ministry of Industry and Trade	A. Gomani-Principal Secretary 2
National Bank	G. Partridge-CEO
National Local Government Finance Committee (under Ministry of Local Government)	Wezie Mjojo-Executive Secretary NLGFC
National Statistical Office of Malawi	C. Machinjiri- Commissioner for Statistics
NBS Bank	Gilford Kadzakumanja, Deputy Chief Executive Officer
NICO	Chifundo Chiundra- CFO NICO Holdings Ltd Gerald Chima- CFO NICO Life Insurance Company Ltd Louis Sibande – CFO NICO General Insurance Co. Ltd
Office of the Director of Public Procurement	Timothy Kalembo, Chief Legal Officer
OIBM	Wilson Moleni – COO Arthur Nkosi – Chief of Staff and Administration
Old Mutual	Edity Jiya, General Manager
Oxfam	J. Makina-Country Director
Reserve Bank of Malawi	N. Ngwira-Deputy Governor F. Mdwazika-Director Mushane Mwangonde- Manger, Oversight and Compliance Division Chikondi Chigamba – Supervisor, Payment Systems Oversight Phindu Lipenga, Principal Examiner, ICT, Bank Supervision Department Sopani Gondwe, Chief Examiner, Policy & Regulations, Bank Supervision Department
Save the Children	M. Pickard-Country Director Jon Nyirenda (Director of Programs)
Standard Bank	Benedicto Kanaza-Head: Customer Channels
Telecom Networks Malawi (TNM)	Webster Mbekeani – Head of Division – Mobile Money Charles Kamoto
UNCDF	F. Chilumpha-Country Programme Manager
UNDP	M. Seppo-Resident Representative
USAID	Christopher Chibwana-Private Sector Specialist
WFP	Charles Ndam-Head of Finance & Administration
World Bank	S. Bloemencamp- Country Manager

End Notes

- 1 G: Government. B: Business (non-financial private sector). P: Person (individuals). D: Development community partner. For further explanation of the payment grid, see Better Than Cash Alliance (2012), *The Journey Toward 'Cash Lite'*, available at <http://betterthancash.org/wp-content/uploads/2012/09/BetterThanCashAlliance-JourneyTowardCashLite.pdf>
- 2 Donors could potentially pay taxes or fees (related to their use of real estate and payment of local employees)
- 3 ?????????
- 4 See Section V for more details on the Shift Trajectory for each payer.
- 5 GSMA Intelligence: <https://gsmaintelligence.com/markets/2370>
- 6 It is important to note that while some figures have been updated to reflect the latest data available, the bulk of the research was conducted in 2013.
- 7 2012 data. World Bank (2012), *World Development Indicators*, available at <http://data.worldbank.org/data-catalog/world-development-indicators>
- 8 In addition to the reports directly cited in the text, see Oxford Policy Management and Kadale Consultants (2009) *Supply Side Study of Financial Inclusion In Malawi*, available at http://www.housingfinance.org/uploads/Publicationsmanager/R_MalawiSupplySide.pdf; FinMark Trust (2012), *Mapping the Retail Payment Services Landscape Malawi*, available at http://www.finmark.org.za/wp-content/uploads/pubs/Rep_RPS_landscape_Malawi_2012.pdf; FinMark Trust (2012), *Status of Agricultural and Rural Finance in Malawi*, available at http://www.finmark.org.za/wp-content/uploads/pubs/Rep_statofAgRfin_MALAWI.pdf; and FinMark Trust (2012), *Financial Inclusion Pilot Project – "Landscape Report – Malawi."*
- 9 FinScope (2008), *FinScope Malawi 2008*, available at http://www.hofinet.org/upload_docs/FinScope_Malawi_2008.pdf
- 10 FinScope (2004). http://www.finmark.org.za/wp-content/uploads/pubs/Pres_FS_Consumer_Malawi_2014.pdf. Though not discussed in FinScope several other factors beyond poverty may be contributing to low financial inclusion in Malawi, as more recent research (Collins et al 2009), has revealed that even the poorest of the poor can and do save and use financial services. We highlight several such additional factors throughout this report.
- 11 FinScope (2012), *FinScope MSME Survey Malawi 2012*, available at <http://www.undp.org.mw/documents/Malawi%202012%20MSME%20Main%20Report%20-%20Final.pdf>
- 12 91% for medium businesses, 47% for small businesses, 35% for micro enterprises, and 12% for businesses with no employees. FinScope estimated that businesses with no employees accounted for 59% of the people involved in the SMME sector.
- 13 CGAP (2010), *Financial Access 2010*, available at <http://www.cgap.org/data/financial-access-2010-database-cgap>. Neither CGAP nor the World Bank's Global Findex have average data across all low-income countries.
- 14 World Telecommunication/ICT Indicators Database, available at <http://www.itu.int/en/ITU/Statistics/Pages/publications/wtid.aspx>.
- 15 Ibid.
- 16 \$73.33 at current international \$, 2012. World Bank DataBank.
- 17 Note that figure is based on limited data (Airtel Money data only over 15 months) in a nascent mobile money market: based on the limited experience of mobile money in Malawi and the limited data available at the time of the research, we are reluctant to draw any strong conclusions about the trajectory or pace of mobile money or comparisons to other nascent mobile money markets in the region.
- 18 Note that these data come from the central bank's Real-Time Gross Settlement (RTGS) system, called Malawi Inter-bank Transfer and Settlement System, or MITASS, and the Electronic Check Clearinghouse (ECCH), and hence do not include on-us transactions.
- 19 The National Payment System Strategy was created by RBM, the National Payments Council and BAM; The Financial Inclusion Strategy was created by the Ministry of Finance under the UNCDF's FIMA project (Financial Inclusion in Malawi).
- 20 The National Payments Council membership is not static. However, the NPC typically comprises the Reserve Bank of Malawi, Ministry of Finance, a consortium of registered commercial banks, infrastructure providers such as Electricity Supply Corporation of Malawi Limited (ESCOM), Malawi Telecommunications Limited (MTL) and Airtel.
- 21 Reserve Bank of Malawi (February 2008), *Payment Systems Reforms in Malawi: A Brief Historical Perspective*, available at http://www.rbm.mw/documents/payment_systems/PAYMENT%20SYSTEMS%20REFORMS%20IN%20MALAWI%20feb%202008.pdf.
- 22 Specific FSTAP Goals include: creating a new pension regulatory framework (a central pensions administrator); establishing a deposit insurance fund; upgrading RTGS systems for settlement of interbank transactions, and the development of a policy and oversight framework; acquiring and install a central depository system for the development of the secondary bond market and enhance the security of the existing FX trading system; developing a regulatory and institutional framework for financial consumer protection; developing an appropriate regulatory structure for MFIs and SACCOs; establishing a financial sector unit within MoF responsible for interagency coordination for policy setting that will involve the financial sector; and supporting the use of the national payment system, mobile phone banking technologies and smart cards for "more reliable and timely payments."

- 23 “In terms of Malawi’s Money Laundering, Proceeds of Serious Crime and Terrorist Financing Act, 2006 banks are required to verify the identification of their customers before entering into a business transaction. In the past, some banks required potential customers to produce formal identification documents, either a passport or a driving license before they could open an account. The cost and availability of such documents was prohibitive. However, banks have now adopted more realistic identification methods, including customers introducing other customers, use of statements from local chiefs and so on.” See Sarah Langhan et al (January 2010), *Alternative Payment Mechanisms Feasibility Study and Recommendations*, Government of Malawi, UNICEF and AusAID.
- 24 For history of IFMIS development, see Phiri McCarthy and Richard Chisala (November 2009), *Quick Assessment of the Integrated Financial Management Information System: Summary of Key Findings and Recommendations*, Government of the Republic of Malawi, Office of The President and Cabinet, available at <http://malawiace.files.wordpress.com/2013/10/summary-of-key-findings-and-recommendations-of-gom-ifmis-review-2.pdf>; NT Mnthambala (November 2007), *IFMIS: A Case for Malawi*, ICGFM Winter Conference, available at <http://www.icgfm.org/conferenceDocs/2007/Dec/9c-BenefitsrealizationMalawiNwaziMnthambala.pdf>; Dick Durevall and Mattias Erlandsson (January 2005), *Public Finance Management Reform in Malawi*, Sida Country Economic Report, available at http://www.sida.se/Publications/Import/pdf/sv/20051-Public-Financing-Management-Reform-in-Malawi_1381.pdf; Guenter Heidenhof, et al (January 2002), *Design and Implementation of Financial Management Systems: An African Perspective*, World Bank, Africa Region Working Paper Series No. 25, available at <http://www.worldbank.org/afr/wps/wp25.pdf>.
- 25 As an indicator of improved economic governance and commitment to reducing corruption, the completion and implementation of IFMIS was one of several pre-conditions for the cancellation of debt under the HIPC debt restructuring initiative of the World Bank/IMF. See <http://www.imf.org/external/pubs/ft/scr/2006/cr06420.pdf>.
- 26 Much of the policy and strategy development over time has come from grants and partnerships with DPs, including the World Bank, KfW, USAID, UN system, DFID, Financial Services Volunteer Corps, US Treasury OTA, the FIRST Initiative and others. IMF, SADC, Committee of Central Bank Governors and others supported NPS Strategy. Development
- 27 National Payments System Annual Report 2012. RBM, Malawi. July 2013.
- 28 For more information on MMAP, see <http://www.fhi360.org/projects/mobile-money-accelerator-program-mmmap>.
- 29 USAID (November 30, 2011), *Scaling Usage of Mobile Money to Boost Financial Inclusion in Malawi: Summary Action Plan*, available at http://egateg.usaid.gov/sites/default/files/Malawi_MM_Action_Plan_FINAL.pdf.
- 30 For more information on UNCDF’s MM4P initiatives, see: <http://www.uncdf.org/en/MM4P>.
- 31 See Deborah Gourlay and Donald Makoka (July 2013), *Evaluation of INGO Integrated Emergency Cash Transfer Program in Malawi, 2012-2013*, Report to the INGO Consortium, UKAid.
- 32 Dermish et al (2012), *Mapping the Retail Payment Services Landscape: Malawi*, Bankable Frontier Associates for FinMark Trust.
- 33 The methodology used to calculate payer-payee relationships is presented in Annex A.
- 34 Data on salaries to local employees only provided by one development partner.
- 35 Authors were unable to source D2G and D2B figures from Development partners. D2G payments could potentially include taxes or fees (related to their use of real estate and payment of local employees
- 36 For some variables, values and volumes were assumed to be equal; so actual differences may be greater than what is reflected here.
- 37 E.g. Standard Bank
- 38 Costs of FMB Malipiro payroll account product. Information publicly available on FMB’s website.
- 39 See Dionne et al, “Aid Effectiveness and Allocation: Evidence from Malawi” 2013. Page 13.
- 40 Moreover, credit cards are not included in the use case because the choice of whether to draw on a line of credit is not comparable to the choice of whether to pay electronically (based on funds available) or in cash.
- 41 MALSWITCH has two models for the Puma, both of which are a closed-loop system: one in which it supplies the POS, in which the merchant pays a fee equal to 1% of the transaction amount, and the customer pays nothing. The second model is at ATMs. Many customers—especially corporates—have returned their cards in the last year due to fuel shortages at Puma.

About the Better Than Cash Alliance

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. The Better Than Cash Alliance is funded by the Bill & Melinda Gates Foundation, Citi, Ford Foundation, MasterCard, Omidyar Network, USAID, and Visa Inc. The UN Capital Development Fund serves as the secretariat.



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