AN EXECUTIVE SUMMARY
THE JOURNEY TOWARD ‘CASH LITE’
Addressing Poverty, Saving Money and Increasing Transparency by Accelerating the Shift to Electronic Payments
1. INTRODUCTION

For the poor, cash can be a tyrant because there are no other options. In developed countries today, and in pockets in developing countries, electronic payments are widely accepted. In most cases, consumers can choose how they make and receive payments, balancing a range of attributes such as convenience, security, speed as well as cost. People often still use cash for small transactions. But they could barely imagine the inconvenience and risk of paying large bills or buying large household items such as furniture, or even a vehicle, in cash. It is all too easy to overlook or underestimate the value that even poor and rural households may attach to the improved security, convenience and privacy electronic payments can bring compared to cash. While cash may seem a benevolent ruler in a land of choice, it can be a tyrant in a place with few or no other options.

Governments, the private sector and the development community distribute billions in cash payments. These bulk payers can play a role in driving a shift to electronic payments opportunities for the poor. Governments, the private sector and the development community distribute billions in cash payments to people living in poverty for government benefits, pensions, social programs, humanitarian aid, or payroll. As bulk payers, these institutions have a unique role to play in driving a deliberate, strategic shift toward electronic payment systems. This report primarily addresses the opportunities and challenges related to their transition to electronic payments.

Shifting these payments to electronic form can bring bulk payers and recipients multiple benefits. The evidence does indicate that a shift toward greater intentional and appropriate use of electronic payments brings material benefits for governments, private sector and development community alike, as well as for individuals—in terms of reduced costs, improved transparency, enhanced security, and access to financial services. The level and nature of the benefits of electronic payments depend on the size and type of the payment, and, importantly, on the starting position before the shift. And realizing these benefits is often dependent on wider changes than the means of payment alone.

Coordinated shifts, rather than gradual drifts, more likely to maximize benefits and consumer adoption. The benefit of a coordinated shift is that the costs are more likely to be recovered sooner, and that the opportunities for the other benefits are more likely to be realized, compared with a gradual drift in which changes take a long time and costs may be duplicated. Recent research on consumer payment behavior has found considerable stickiness: once consumers become familiar with a payment instrument, they are more likely to continue to use that instrument, even when the benefits are reduced. Purposeful shifts are more likely to change persistent behavior patterns.

There are significant, but not insurmountable, barriers to the transition. While there is a general drift toward electronic payments, there are significant barriers that can lengthen the transition, increase the costs or reduce the benefits, and even stall wide-scale adoption. Realizing the full potential of electronic payments will require leadership, coordination and sustained effort from governments, the private sector and the international development community, often in poor and remote places.

“In predominantly cash-based economies where access to financial services is restricted, managing individual or family liquidity presents a number of challenges. In Haiti, one of the most pressing needs seems to be the storage and transport of cash. People we interviewed regularly expressed concerns about theft of household savings or being robbed en route to making purchases or payments.”

MERCY CORPS REPORT
PILOTS IN NIGER AND HAITI DEMONSTRATE EVEN THE POOREST COUNTRIES CAN USE AND BENEFIT FROM ELECTRONIC PAYMENTS

Niger and Haiti are two of the poorest countries on earth. Less than half of adults are literate. While only one in five Haitian adults has a bank account, in Niger the proportion is below one in fifty. These two countries are also among the most cash intensive: almost everyone uses cash for all purposes and a vanishingly small proportion even possesses debit cards, let alone credit cards.

Yet in these places in the past few years, thousands of people in poor and remote communities have received access for the first time to their funds using a mobile phone — as part of cash transfer programs run by international NGOs. The early evidence suggests these recipients are now experiencing some of the benefits of electronic payments. In Haiti, one recent pilot program moved workfare payments from cash to electronic transfers via mobile phone. More than three-quarters of recipients perceived electronic payments to be safer than cash, in large part because of improved confidentiality. In another Haitian pilot, three-quarters of the recipients who received their transfer into an account, rather than directly in cash, said that the new electronic service had improved their financial management.

In Niger, ten thousand households in 96 communities were randomly assigned to receive a monthly cash transfer for five months, either in cash directly or into a mobile wallet. Those paid into the mobile wallet saved time valued at the equivalent of a day’s grain for a family of five. Researchers found evidence that they followed better financial practices compared to those paid in cash.

Electronic payments in these countries are nascent, with 99% of transactions likely conducted in cash. But pilots like these are promising in that they show that even poor and remote communities can use and benefit from electronic payments.

2. FOUR STAGES IN THE SHIFT TO ELECTRONIC PAYMENTS

Advances in payments technology and a growing appreciation of some of the benefits have driven pockets of innovation and movement in electronic payments, often of the sort and scale experienced in the Haiti and Niger pilots. However, a more purposeful, coordinated approach is needed to surmount the barriers that exist to reaching large scale. Otherwise, a prolonged drift is likely, in which not only may the benefits not be fully realized, but the costs of transition may be higher than necessary.

The first shift happens when bulk payers in an economy, such as government, large employers or development aid distributors decide to pay electronically. This shift creates new opportunities and, typically, new needs for payment infrastructure. Many countries are now going through this first transition. However, a recent World Bank survey of payment regulators indicated that a third of governments still pay salaries using mainly cash or checks; and half of them pay cash transfers this way.

The second shift takes place as opportunities grow for recipients to spend or transfer money electronically. The transfers here would include options to send money to other people (P2P) and to pay loans and bills to businesses (P2B) and taxes and fees to governments and utilities (P2G).

Finally, the third shift comes when even the majority of small payments, which are usually between people and merchants (i.e., P2B) for everyday items like groceries, also become electronic. This happens when purchase at the point of sale using a card or even a mobile phone becomes easy, cheap and convenient for consumers and widely accepted by merchants.

Figure 1: Stages and Shifts
3. THE BENEFITS OF SHIFTING TO ELECTRONIC PAYMENTS

There is compelling evidence that electronic payments can bring substantial benefits at each shift. Most studies consider partial benefits, often only over a relatively short time. Nonetheless, it is possible to piece together the picture emerging from a diverse range of studies in different societies to assess the benefits of moving toward electronic payments.

**Transparency**

The ability to track payments electronically can have a dramatic effect in increasing accountability and reducing leakage of unauthorized expenditure. The levels of leakage from cash-based schemes are inherently hard to estimate but are thought to be high.

- It is estimated that 75-80% of the $22 billion in benefits of shifting India’s government payments to electronic would come from reducing leakage of funds in government transfer schemes ending up in the wrong hands.  
- A recent case study found that a government department in Kenya was able to increase accountability and significantly boost its revenue from fees received through shifting its payment processes to allow for electronic receipts.
- Similarly, a range of international NGOs has found that a major benefit of electronic payments was the reduced opportunity for fraud and the diversion of funds.

**Security**

In many cash-heavy countries, poor communities experience the risk of loss of cash acutely: numerous surveys have recorded how the increased security of an e-wallet or bank account is valued highly by beneficiaries. Some users of mobile money in places like Kenya load e-value before a bus trip or a journey through a risky area in order to reduce the risk of losing the money to thieves—for them, cash is not “king,” but a risky asset to hold. However, the security benefits of the shift to electronic payments do depend on context. The risk of cash theft varies by country, as does the risk that unauthorized electronic access may deplete a bank account and also the recourse which follows any such loss if the system doesn’t have the appropriate levels of security built in.

**Privacy**

Workers and social grant recipients in low-income communities value the ability to shield their money flows from public scrutiny as a result of discreetly receiving electronic transfers rather than public payouts of cash. Certainly, greater privacy reduces the risk of theft but the benefits of privacy go beyond this: greater privacy can improve a recipient’s control over funds since she is less likely to be pressured by friends or family to spend in ways that do not correspond to their own, or their household’s, priorities (or those of the transfer scheme).

Electronic payments may shield money from local observers, but the system needs to protect recipients from illegitimate access to payment records. Privacy and data policies in many countries do not yet address this issue adequately and need to be revisited.
Timeliness & Speed
Being able to quickly send money across distances following a disaster or for urgent medical treatment is highly valued by individuals, NGOs and governments.

- Following a recent hurricane in Haiti, disaster relief payments using electronic means were able to commence within a day.\textsuperscript{13}
- Consumers in Ghana and the Philippines have indicated that the speed of payment is an important attribute for remitters.\textsuperscript{14}

Unfortunately, new payment schemes cannot always be set up so quickly: NGOs have found that this varies considerably with the availability of places that accept the means of payment, so preparedness plans in vulnerable areas are needed to reduce the set-up time required.

Financial Management
Better record keeping and greater control of funds enhance financial management for individuals, private sector businesses, donors, and governments.

- In Kenya, the ability to transfer money speedily, reliably and cost effectively using mobile money has enhanced the way in which Kenyan households respond to and manage risks.\textsuperscript{15} Furthermore, M-Pesa is playing a prominent role in securing external financing from friends and family at a distance to help deal with cash-flow management.\textsuperscript{16}
- In the Zap mobile payment pilot in Niger, recipients of cash transfers paid electronically felt more able to manage their financial flows. In addition, they had better diversified household portfolios, which researchers attributed to having more time to manage their money and more control over funds than households paid in cash.

Cost Savings
The cost savings of shifting an economy from cash to electronic transactions are substantial.

- In Brazil, the central bank estimated that 0.7% of GDP would be saved as the result of a complete transition to electronic payments, considering the costs of the payment instrument issuers only.\textsuperscript{17}
- The Canadian Payment Association estimated even higher efficiency savings of up to 2% of GDP arising from a full move away from paper instruments, after including the benefits of a broader range of automated functionality.\textsuperscript{18}
- A study of four large cash transfer programs in middle income countries found that social agencies could achieve cost reductions of 30-60% per transaction by moving away from physical cash payments, provided the financial infrastructure already existed for recipients to withdraw cash from their new accounts.\textsuperscript{19}

When financial infrastructure does not already exist, such as in Colombia, the cost per payment actually increased in the short-to-medium-run.

Financial Inclusion
Financial inclusion means a range of products is available to all segments of society at reasonable cost. A shift to electronic payment can increase the range of services available and may decrease costs over time, although this outcome will depend in part on the functionality of the bank account in use. General purpose or mainstream financial accounts, which allow consumers to store savings and to make and receive electronic payments, may serve as stepping stones to financial inclusion, if they reduce the cost of transactions so there is a business case for banks and account providers to offer these accounts.\textsuperscript{20}

The biggest opportunities for financial inclusion arising from a shift to electronic payments have yet to be realized in most places. They come from financial service providers using digital information generated by e-payments and receipts to target more appropriate and relevant products to consumers.

Economic Growth and Development
A whole literature has explored the linkages between financial development and economic growth. Various studies have concluded that greater financial depth leads to faster economic growth.\textsuperscript{21} While greater financial depth is not the same thing as more electronic payments, the two are related: a cross-country study in 2003 found that a 10% increase in the share of electronic payments was correlated with an increase in consumer spending of 0.5%. As consumer expenditure is itself a common driver of economic growth, this raises the prospect of a virtuous cycle between electronic payments and economic growth.\textsuperscript{22}

New Market Access
New payment methods open opportunities for new businesses to start up.

- One such opportunity is for local merchants to serve as an agent of financial providers, receiving a fee for offering a cash-in or cash-out service.\textsuperscript{23} Kenya now has more than thirty thousand agents of mobile money services. In developed markets, the growth of online marketplaces such as eBay, supported by the rise of electronic payments, has led to the creation of thousands of new jobs.\textsuperscript{24}
- By reducing the cost and risk of cash collection, electronic payments enable new fee-for-service business models. For example, pre-payment options for electricity or water may enable these utility services to be offered on a wider basis. Or poor communities could access and pay for mobile health services and even for private school education, which were previously unavailable due to the high transaction costs of cash.\textsuperscript{25}
4. BARRIERS TO SHIFTING

Even though there may be compelling reasons for different stakeholders to shift toward electronic payments, this does not mean that a shift is automatic: barriers may impede or arrest a shift. If these barriers are not understood and addressed, then a gradual drift toward electronic payments is more likely than a strategic shift.

In addition to the audience-specific barriers identified below, there are other overarching concerns that need to be addressed when designing an electronic payment transition:

- The need for clarity around, and enforcement of, data privacy
- Reducing opportunities for e-fraud
- Ensuring poor and illiterate people understand how to use e-payments
- Reducing costs to expand usage among poor people

Barriers and Challenges for Governments Include:

- **Coordinating a shift across agencies** (and even sometimes within agencies) with different objectives and mandates.
- **Communicating objectives to citizens.** For example, a study of four middle income countries that were making large-scale shifts in government payments found that social agencies failed to send clear messages to recipients about whether they could leave money in their newly opened bank accounts or even add more. This undermined the achievement of financial inclusion, an objective which was not necessarily shared across government agencies.
- **Mixed messages to businesses** about whether new payment approaches are simply a means of surveillance to enforce tax compliance may also deter their use of electronic means.
- **Changing established regulations and procedures** to enable governments to make and receive electronic payments.
- **Addressing the likely lack of skills in the agencies** responsible for overseeing national payment systems.

Barriers and Challenges for Private Sector

- **Businesses differ greatly in their size and complexity, and therefore also in the costs they face of transitioning from a manual process to an automated one.** Many of the wider benefits to businesses come when they are able to automate accounting processes as a whole, rather than when they merely accept or initiate electronic payments. This level of change requires significant time and resources. \(^{26}\)
- For small businesses, the lack of easy-to-use standardized and inexpensive interfaces between payment solutions and accounting packages increases the costs of shifting.
- **Businesses receiving electronic payments in exchange for goods and services will likely be deterred if there is any lack of legal certainty over when a payment is final,** as opposed to when it may be reversed. Card payment schemes have developed detailed rules that increase certainty for both merchants and customers alike, but the present lack of credible rules around other types of electronic payments may limit acceptance by businesses and consumers.

Barriers and Challenges for Donors and NGOs in the International Development Community Already Decreasing

The recent survey for the Cash Learning Partnership\(^{27}\) notes that barriers faced by donors using electronic payments may in fact be decreasing. The report cites changes in regulations to allow easier basic account opening for poor recipients of cash transfers, as well as new mechanisms (including CaLP itself) for sharing information that helps overcome information and knowledge barriers.

Barriers and Challenges for the Individual

Unlike the stakeholder groups mentioned above, individuals are not typically bulk payers—they make on average only 60-70 payment transactions per month in developed countries—but they, too, experience barriers to the adoption and use of electronic payment instruments. Governments or employers may force individuals to make the first shift by paying their salaries or benefits only into a specified account. However, subsequent shifts depend crucially on individuals and businesses trusting the means of payment and being willing to change their behavior.

Trust is an outcome of many variables, most importantly, individuals’ experiences of a system over time. Trust is easy to lose; if it is not sustained by an enabling legal environment throughout the stages, it can be difficult and slow to rebuild. This highlights the need to consider future shifts when undertaking the first.
# 5. RECOMMENDATIONS

**HOW GOVERNMENTS, THE PRIVATE SECTOR AND THE DEVELOPMENT COMMUNITY CAN OVERCOME BARRIERS**

The journey from a cash heavy society to a cash lite one takes time: consumer behavior adapts slowly to greater automation, as indeed do businesses and government. While the underlying drift toward electronic payments can be accelerated to become a shift, all parties need to have realistic timeframes and targets in mind as they embark on the journey.

## Governments

### Governments Steps

- **Understand and monitor the payment patterns of recipients and payers before and during a shift to electronic:** Designing appropriate survey and monitoring tools requires time and resources, but they are necessary to design appropriate payment approaches and make adjustments in how a service is rolled out.

- **Build a roadmap for development of the national payment system with stakeholder engagement:** Government’s choices and options regarding payment exist in the context of the national payment system as a whole, a system with many stakeholders with conflicting interests. Ministries of Finance or central banks have a key leadership role to play.

- **Support the transition to electronic payments through a range of associated measures, not just a legal mandate:** No matter how well intentioned, a government push to electronic payments without ensuring that there is an adequate payment infrastructure and appropriate incentives for customer adoption is likely to founder.

- **Coordinate policy messages and actions across government departments:** Coordination is much more than a communication issue, although it is also that—clear, ongoing communication between government and all its payees is necessary to smooth a transition.

- **Identify opportunities to implement innovative payment approaches and monitor the results carefully:** Piloting new approaches on a “test and learn” basis is consistent with Principle 7 of the G20 Principles for Innovative Financial Inclusion.28

## Private Sector

The focus here is on businesses in their roles as payers — of their employees and vendors in their supply chain.

### Business Steps:

- **Participate in national payment forums:** When governments convene national payment councils to enable consultation among providers, users and regulators of the payment system, businesses have an opportunity to add their voices to the discussions.

- **Invest in record-keeping systems with appropriate application programming interfaces (APIs):** Existing electronic payment solutions often do not integrate easily to business accounting systems.

- **Coordinate within sectors across value chains:** Supply chains differ in their propensity to automate and to accept electronic payment. For example, agro-industrial processors that buy inputs from many small-holder farmers in rural areas differ in their payment needs from an industry that sources raw materials from a few large suppliers.

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28 Source: G20 Principles for Innovative Financial Inclusion.
A Cash Learning Project report identified a number of actions for the development community to follow.

**Development Community Steps:**

- **Improve donor agency capacity to understand and apply electronic payments:** This may involve increasing the familiarity of staff with the existing examples and providing training courses.

- **Improve recipient capacity, especially those with low literacy:** This involves experimenting with cost-effective and scalable ways of providing support to first-time users, as they encounter questions and difficulties.

- **Improve processes and formalize new ways of working together and with providers:** This action would include clarifying roles and responsibilities of agencies in advance, by, for example, undertaking joint readiness assessments in areas prone to disaster. In other environments, there is a need to better coordinate among development agencies helping to build the payment or distribution system and those in the business of paying out transfers.

- **Develop codes of conduct for the management and sharing of electronic data:** Especially in countries with weak or non-existent laws, establishing codes of conduct would help address concerns about recipients’ data privacy, and it may even encourage the wider financial sector to consider adopting similar standards.
There are no accurate measures of payments overall in these countries, but these estimates are in line with those made for other even more developed economies.

1. See Humphrey on research from the Australian experience with credit cards, which suggests that even if rewards were reduced or eliminated, the effect on the share of payments made by credit card would be small: p.1732


3. According to the 2011 Global FINDEX Survey, only 0.2% and 2.9% of the adult population in Niger and Haiti used electronic payments, similar to the figure of 1.9% for low income countries in general.


7. There are no accurate measures of payments overall in these countries, but these estimates are in line with those made for other even more developed economies.


12. See for example, Mercy Corps survey of Haitian beneficiaries.

13. A mobile phone company and the government of Haiti announced that they were able to provide cash payments to 5000 victims of a recent hurricane within one day of landfall: see Haiti, Digicel Partner to Distribute Mobile Money to Isaac Victims. (2012, August 27). Caribbean Journal.


26. See CFIB, p.2, for major obstacles reported by Canadian small business, which are topped by the cost.
