Channeling Cash Flows

TOWARDS A NEW BUSINESS MODEL FOR LOW-INCOME SAVINGS MOBILIZATION

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INTRODUCTION

After decades of emphasis on microcredit, the microfinance industry has increasingly embraced the idea that low-income people need savings services as much as they need loans, if not more. Market surveys conducted at different times and in different developing countries confirm significant unmet demand among low-income customers for secure savings accounts. The recent crisis in Andhra Pradesh has also inspired some soul-searching in the industry, raising questions about whether low-income people can borrow their way to prosperity.

Furthermore, a solid body of field research establishes that low-income people already can and do save as a matter of routine (Rutherford, 2000; Karlan & Morduch, 2010). For low-income individuals and households, savings is much more than putting something aside for the hypothetical rainy day. Rather, savings is part of basic cash-flow management. It is how low-income people smooth out the lumpy cash flow that characterizes self-employment. It is how they cover occasionally necessary large cash outlays (e.g., for weddings, funerals, school fees, or holidays). It is how they deal with emergencies, build assets, and seize opportunities. Among the East African respondents of recent studies by Microfinance Opportunities (MFO), savings is also the way low-income people "capitalize the Favor Bank," so to speak. Cash gifts and spot loans flow freely among extended families and between friends in this context. Keeping a little savings available to lend to someone in your trusted circle helps ensure money will be available to you, too, if and when you need it.

Much of the current discourse around savings seems to pick up in the middle of the conversation. Overlooking how the savings were amassed to begin with, discussions about savings take their existence as a given and move immediately to focus on supply-side questions: how savings products should be designed, how low-balance accounts can be serviced sustainably, how technology can be leveraged to expand savings services, how savings can be linked to worthy social goals (e.g., education, improvements to housing, or health care).

This paper argues that before we can understand low-income people's *stocks* of savings, we must first understand the *flows* of cash from which those stocks were accumulated. People make and spend money according to different patterns. Those earning and spending patterns shape everything about savings: how much people save, how long they hold on to savings, what they use the savings for, and – of great interest to the microfinance sector – *where* they save.

For a financial services provider (FSP) to deliver savings products that low-income people will value more highly than they do the time-honored (and psychosocially powerful) informal alternatives, the FSP must find a way to connect itself to the money flowing through the hands of those individuals rather than just tinkering with the leftovers. This transcends isolated issues about product design, raising important questions about an FSP's business model. It also requires deep understanding of the financial lives of the target market.

This brief draws on evidence from MFO's field research in Malawi (Stuart, Ferguson, & Cohen, 2011) and Kenya (Stuart & Cohen, 2011) from 2008 through 2010. Using the Financial Diaries methodology, MFO tracked the economic transactions of hundreds of individuals over the course of many months, yielding

a database of hundreds of thousands of transactions that can be mined for insights into savings behaviors (as well as other financial behaviors).

Our analysis of these data focused on two key areas:

- The ways in which low-income households save money and then spend it, and
- Where and in what form they keep savings.

The first pertains directly to the *flow* of money; the second to the *stocks*. The key focus of this Brief is the relationship between the two – and the evidence that understanding that relationship is critical for FSPs targeting the base of the pyramid.

SAVINGS: FROM FLOW TO STOCKS (AND BACK AGAIN)

A person can only save if they have money **flowing** through their hands in the first place (Collins, 2005). A critical part of understanding how people save is to understand *how* money flows through their hands. Once we understand this, we can look at the stock they have accumulated – their savings – and understand why it is in a certain amount, in a particular place, for a particular period of time.

Evidence from MFO's own work in Kenya and Malawi, as well as findings from other studies in Bangladesh, India, and South Africa (Stuart et al., 2011; Stuart & Cohen, 2011; Rutherford, 2000; Collins, Morduch, Rutherford, & Ruthven, 2009), all suggest that low-income individuals handle much more cash than "sticks" to them – that the flow, in other words, is considerably larger than the stock. On average, a low-income micro-entrepreneur in Kenya and Malawi handles between $1.50 and $2.00[1] to earn a dollar. Even salaried employees being paid monthly handle more cash than their middle-class counterparts in the developed world, both because they make all their purchases in cash (and may even receive their wages in envelopes of cash) and because they are more likely to be part of a social network in which cash gifts and loans flow freely.

This last point highlights another advantage of looking at cash flows as well as stocks of savings. Doing so focuses attention on the interpersonal networks through which cash flows and how those networks structure the savings behavior of the people within them. MFO data from Malawi and Kenya indicate that cash circulates through the social networks in which low-income people are embedded, whether as cash gifts or loans between friends and family members or else as transactions with rotating savings and credit associations (ROSCAs), which themselves depend upon, and are embedded within, the bonds of interpersonal networks.

This "embeddedness" has implications for providers of formal financial services, who should take into account the likelihood that the use of formal financial services will be shaped by social networks. MFO's Kenya study, for example, tracked the relationship between senders and recipients of digital remittances

1. These figures reflect purchasing power parity (PPP) dollars based on rates of exchange between PPPs and Malawi kwacha and Kenya shillings that were in effect at the time the respective reports' field research was underway.

and found that 80 percent of the remittances reported over an eight-month period were exchanged between friends or within extended families (Stuart & Cohen, 2011).[2]

As noted above (and as we have discussed extensively elsewhere [Stuart & Cohen, 2011; Cohen & Sebstad 2001]), low-income individuals save routinely and for a variety of reasons: to help them manage their cash flow, to mitigate the risks to which they are constantly exposed, and to buy assets. Each of these uses affects the amount of money put aside, the length of time it is stored, where the money is stored, and the timing of the flows into and out of the stock of savings. All those variables, in turn, have important implications for how an FSP should structure savings services.

For most people, the main source of their income determines how they manage their cash flows and, by extension, the timing and the size of savings transactions (See Table 1). For example, a salaried employee receives a set amount of income on a set cycle (weekly, biweekly, or monthly) and typically saves part of the salary for expenses that hit later in the cycle (See Box 1). In contrast, a farmer earns money from the sale of agricultural products, resulting in a more sporadic, seasonal cash flow. Many farmers also earn steadier, supplemental income from nonseasonal agriculture (e.g., dairy herds or chickens) or from non-agricultural side businesses. As a result, farmers have the opportunity to save their lumpy, seasonal earnings, draw down those savings over time, and live, day to day, off the combination of this draw down and the income from the steadier businesses.

Among microentrepreneurs there is a wide variability of cash flows. A person in the business of selling cooked foods, for example, is likely to earn a regular, daily income, albeit in varying amounts. Food sellers will also incur daily expenditures, as well as less frequent, but still regular, expenses for bulk items, such as cooking oil or firewood (See Box 2). They are likely to save money over a short period in anticipation of having to spend money to replenish their stock.

A person in a service business, such as a tailor or barber, also earns daily income, but spends less frequently on inputs. As a result, such a person may have less need for short-term savings for their business and can focus on saving for other needs. Finally, a person who sells large items, such as an oxcart builder or furniture-maker, or who does work on a project basis may receive intermittent, irregular large sums and have intermittent, irregular large expenditures. Like the farmer, they are likely to save their lumpy earnings and draw down on them during periods in which they do not have money coming in.

2. Evidence from our Kenya study suggests that, beyond social networks, financial service providers need to also think about the business networks within which low-income people make their livings. People in this study who received a business remittance were more likely to "on-send" that remittance, rather than to cash it out, than someone receiving a remittance for his or her own, personal use.

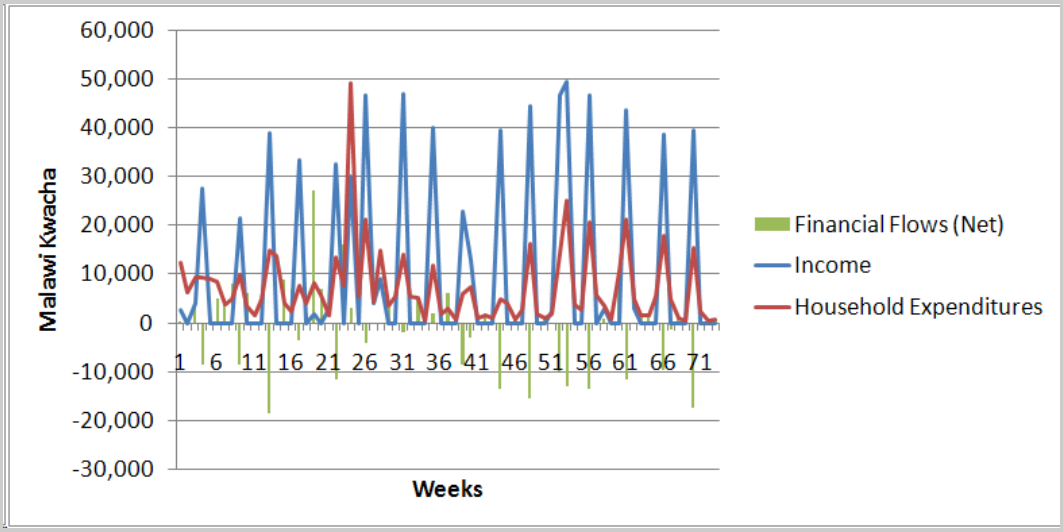
Box 1. Emmanuel and Grace: Salaried Teachers with a Consumer Loan

Grace and Emmanuel were 36 and 43, respectively, at the time of MFO's study in Malawi. They had three children under the age of 10. They earned regular, monthly salaries as school teachers, spending a lot of what they earned during the week in which they got paid. On a per capita basis, the couple earned about $4 (PPP) per day. They were also paying down a loan to Greenwing Finance, a consumer loan company that specializes in lending to salaried workers and deducts installment repayments directly from the salaries of their borrowers.

The amount Grace and Emmanuel were paying Greenwing amounted to about 25% of their salaries. Around the end of 2008, the government suspended the practice of salary deductions for loan repayments to companies like Greenwing due to growing evidence that many teachers were taking home almost nothing, because they had taken on so much debt. The loan repayments resumed in March 2009.

The spike in expenditures around week 25 is related to Christmas spending.

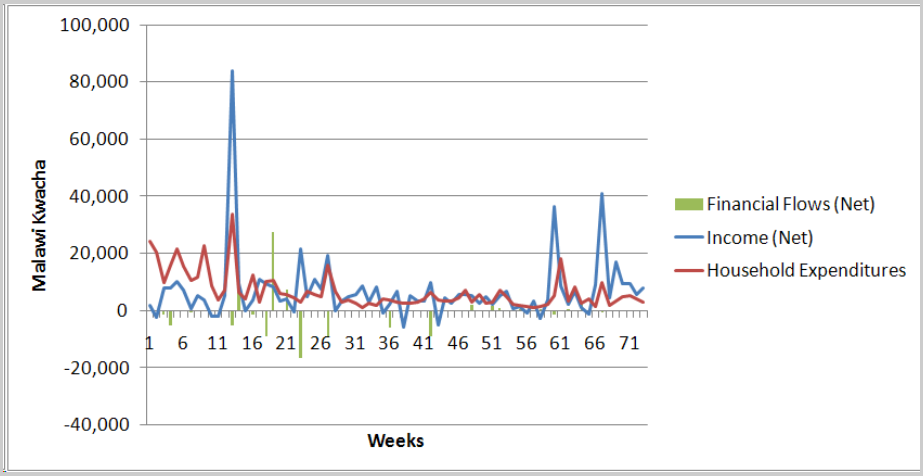
Cash Flow of Salaried Teachers



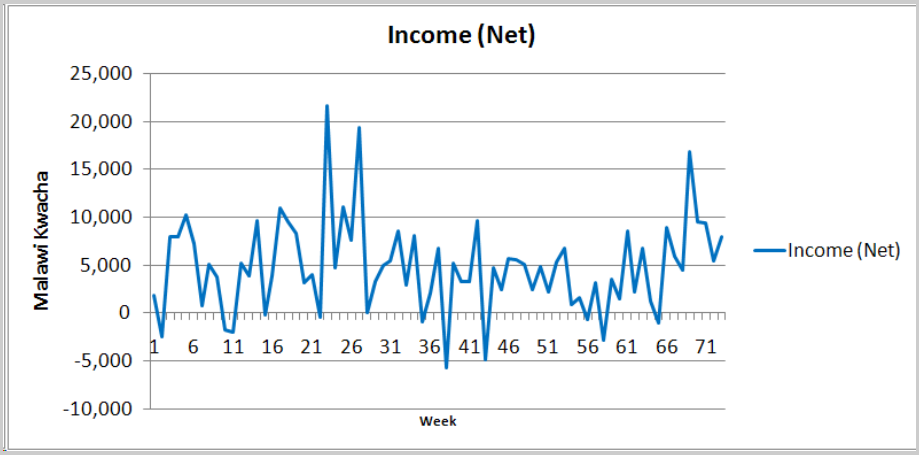
Box 2. Bright and Mercy: Cooked Food and Cattle Sellers

Bright and Mercy were 40 and 36, respectively, at the time of MFO's Malawi study. They had three children living with them at the time of the study. They had a cooked food business but were also farmers and raised cattle. They earned about MKW 6,800 per week, resulting in a per capita daily income of $3 (PPP). Their income was highly inconsistent, not only because the cattle sales resulted in large infusions of cash at fixed points in time (in weeks 13, 60, and 67), but also because net income from the cooked food business was highly inconsistent.

Net Income, Cooked Food and Cattle Sales



Net Income, Cooked Food Business Only



The spikes in income between weeks 23 and 27 are likely to be related to the Christmas season.

It is important to remember the role of the interpersonal network in all these cases. People's incomes may be added to or subtracted from by cash gifts, loans, or loan repayments to and from people in their trusted circle of friends and family, depending on the stocks and flows of those other people and on their various needs.

Table 1: Livelihoods, Cash Flow, and Savings

Livelihood	Cash Flow	Implications for Saving
Salaried employee (e.g., Emmanuel & Grace, Box 1)	Regular lump sum inflows; no business expenses	Save part of regular lump sum and then draw down to cover household expenses
Day laborer	Irregular small sum inflows; no business expenses	Save small sums when able and then draw down to cover shortfalls in income
Microentrepreneur, service (e.g., James, barbershop and cell-phone maintenance, Box 4)	Regular, small daily inflows; intermittent, small business expenses	Save small sums regularly after taking care of household expenses; may cover business expenses from cash flow
Microentrepreneur, petty retail (e.g., Bright & Mercy's cooked-food business, Box 2; Robert & Julie's photo shop and basket weaving, Box 5)	Regular, small daily inflows; regular, lump sum business expenses	Save small sums regularly after taking care of household expenses; draw down to cover business expenses to replenish inventory or inputs
Microentrepreneur, durable goods, projects, or wholesale	Irregular lump sum inflows; irregular, lump sum outflows	Cover lump sum outflows with lump sum inflows where possible; save remainder to draw to cover household expenses
Farmer (e.g., Bright & Mercy's cattle sales, Box 2)	Seasonal lump sum inflows and outflows	Inflows and outflows occur at different times of year, months apart. Either save out of inflows for future outflows, or borrow to pay for outflows, and repay out of inflows.

So far, this discussion of cash flow has focused on the quotidian flows – those that are essential for the everyday life of an individual and household. But there are other outflows low-income people routinely experience that affect how they set aside money. These include payments for school fees, the purchase of long-desired consumer goods (e.g., a TV or radio), and expenses related to celebrations (e.g., a wedding or holiday) or to solemn events (e.g., funerals). These expenditures often amount to a week or more of income and can occur quite frequently – once every two months, or so. They often have to be paid for out of savings, with cash gifts from family and friends, with loans from a variety of sources, or some combination of all these sources.

As noted above, low-income individuals need financial resources to manage a variety of risks on top of the usual cash-flow challenges. Those risks come in a number of forms: a short-fall in income; an unexpected expense; or the loss of or damage to an asset. In MFO's Malawi and Kenya studies, we found

that microentrepreneurs, who were in a position to earn some income every week, instead experienced many weeks in which they earned nothing – one quarter or one-fifth of the time, respectively. They also experienced unexpected expenditures, such as hospital bills or funeral expenses (though in the case of Malawi, the amounts involved were small). Finally, we saw instances where people suffered lost or damaged assets, for example, through having money stolen or having to spend money to repair a bicycle.

Low-income people can use savings to manage risks *ex ante* and *ex post. Ex-ante* approaches involve using savings to buy a good, service or asset that reduces vulnerability – for example, paying for a vaccination to lower an individual's risk of disease or repairing an asset, such as a leaking roof or a smoking chimney, to lower the chances of the family getting ill.

But part of what it means to be low-income is that you cannot buy your way out of all the risks confronting you. For example, low-income people cannot afford to raise their houses on solid, concrete piers to protect against flood as a middle-income person could; or they cannot afford to live in a city neighborhood with a good sewer system, so they and their children are more exposed to water-borne diseases.

Generally speaking, low-income individuals are more likely to have to deplete savings to manage risk after the fact. More often than do better-off people, low-income people face the choice of either drawing against savings to mitigate the effects of an event (for example, seeking medical care or buying medicine only when illness strikes) or else suffering the consequences (skipping the treatment, which preserves savings but means the patient stays sick longer, which affects earnings).

In short, low-income people are doubly vulnerable: both exposed to more risks in the first place than are better-off people and equipped with fewer resources to manage risk. In the absence of formal insurance, their only option is effectively to self-insure using savings or to tap into their social network. The problem is that the risks the poor face are chronic and can strike at unpredictable times (Box 3).

So far, we have looked at two of the main reasons people save: to manage cash flow and to mitigate risks. In addition to these two reactive motivations, people also save to accumulate a stock of money[3] from which they can purchase an asset to improve, rather than simply maintain, their quality of life. Whether the asset purchase is a long- or a short- term proposition, because it is self-directed, the saver has more control over when he or she spends the money (Box 4).

3. An intriguing grey area is the retirement savings account offered by Grameen Bank. The success of these accounts suggests that, at least in Bangladesh, low-income women save for their old age – essentially a form both of cash flow management, albeit with a much longer time horizon, and of self-insuring against the risk of diminished future earning power.

Box 3. Arthur: Paying Hospital Bills

Arthur lives on a farm six kilometers west of Murang'a with his wife. They have seven grown daughters living in Mombasa, Nairobi, and the United States. He and his wife earn income from the farm and from a general store they have owned and operated for over 30 years in a nearby trading center. In early April 2010, Arthur's wife became sick and had to be admitted to the Kenyatta Hospital in Nairobi. She remained in that hospital for the next month but moved to a different Nairobi hospital sometime around the beginning of May, remaining there until she was discharged in early June.

During his wife's hospitalization, Arthur paid nine hospital bills in the combined amount of $8,138. Initially, he was able to pay for the bills by both using the cash flow from his business and drawing down his savings. In fact, it seems like he increased his earnings from his business in early April and paid for two of the bills (one for $600 and one for $450) that way. In mid-April, he withdrew about $200 from his bank account via an ATM in Murang'a, and his son sent him an additional $70. He used some of these funds to pay off two relatively small (~$60) April hospital bills, and then combined the remaining balance with two remittances of $2,100 each from two of his daughters to pay additional bills totaling $4,268.

After this, Arthur withdrew $1,425 from his account at Equity Bank in Murang'a to cover a $1,700 hospital bill, and another $468 from his account at Family Bank to pay another bill in that amount. At last, in mid-June, Arthur received $425 from his sister-in-law via M-PESA, and he traveled to the hospital in Nairobi to pay the final bill in person. Fortunately for the family, his wife had been released from the hospital the week before even though it is common in Kenya for hospitals to refuse to discharge a patient until the account has been paid in full.

During the period of his wife's hospitalization, Arthur received a number of small remittances from family members and business associates. (The latter remittances were business payments unrelated to his family situation.) But these remittances were small (~$30 to ~$70) compared to the payments he was making. He also tried to keep up with merry-go-round commitments during this time, despite scrambling for cash to pay his wife's hospital bills. He made five contributions to his merry-go-round during his wife's hospitalization, about once every two weeks in amounts ranging from $32 to $70.

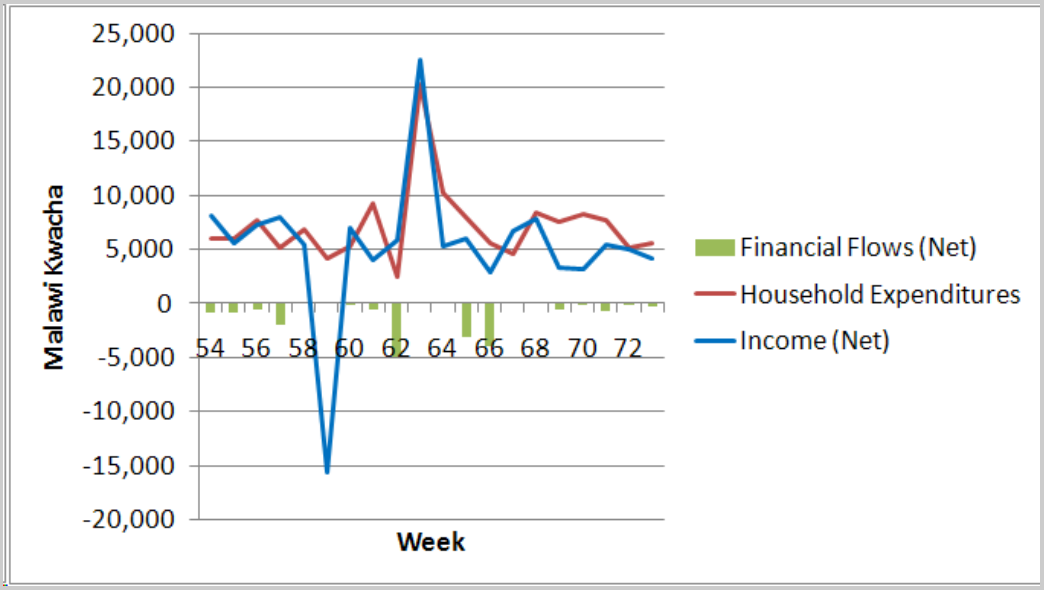
When MFO interviewed Arthur in late 2010, he was still running his store. In late November he had to pay another hospital bill for a visit to a doctor in Nairobi, this time for $215. His daughter living in Mombasa sent him the money to pay for this, and although this cannot be verified, it appears that his wife's hospitalization the prior spring may by this point have exhausted Arthur's savings, both formal and informal, except for his merry-go-round account. It appears that he tapped his own savings to the extent possible to cover the less-daunting hospital bills, used remittances to cover the biggest ones, and by late 2010/early 2011 was focused on rebuilding his reserves via the merry-go-round. In January he received a $380 pay-out from his merry-go-round and another in February for $530.

Box 4. James: Iron Sheet Purchases

James was 27 at the time of MFO's study in Malawi. He earned money as a barber and also provided a phone-charging service on the side. He did well for himself, earning about MKW 5,648 per week on average (about $85 PPP per week). He lived with two siblings who were also in their 20s, but MFO did not study what they earned. James managed to spend almost all that he earned during the course of the 73 weeks of the study, including buying himself a new roof.

At the end of July 2009, James bought an "iron sheet" to put on the roof of his house. It was only one sheet, and not enough for the whole roof. In the weeks that followed, he continued to earn his regular income from his barbershop, but he also decided to invest some money in the purchase of a large quantity of rice – MKW 18,000 worth. He travelled to a market on the bus to buy it and then came home with it. In week 63, he sold the rice and used the proceeds to buy eight more iron sheets for his house. It seems he either took a loss on his rice trading or that he kept some of the rice he had bought for his own consumption, because he only received MKW 14,250 for the rice he sold.

Cash Flow and Iron Sheets Purchases



In sum, low-income people need savings for cash flow management, risk management, and asset accumulation.

- Cash flow management is about managing expenditures you anticipate and know when to expect.
- Risk management is about managing expenditures that you anticipate but do not know when to expect.

- Asset accumulation is a special case of cash flow management, involving a long time horizon (the old age scenario) or an expenditure the individual can plan for, at a time that he controls, for an asset that will improve the well-being of the individual or household.

Common to all these reasons for saving is the fact that the timing, frequency, and size of the amounts saved all depend on the cash flow of the individuals concerned. That cash flow, as we have seen, can vary considerably depending on their livelihood and the demands on their money. This last point is critical: although it is important to understand why people save, it is more important to understand *how they can* save, given their cash flow.

WHERE AND HOW LOW-INCOME PEOPLE SAVE

The transactional data from MFO's Diaries research and data from other Diaries studies identify the different places where low-income people store money. The data also allow us to see the connection between where people save and how they do so (See Table 2). For example, people MFO interviewed saved in their homes or by keeping cash on their persons[4] – what we generally refer to as "mattress money." This form of saving is highly convenient, requiring no travel to a bank or waiting for the next merry-go-round meeting, and can help someone effectively manage their day-to-day cash flow. But mattress money also poses a temptation to spend, precisely because it is close at hand.

Note also in Table 2 we have included lending or giving money[5] to friends and family as a form of savings. We do this not because those friends or family members literally are holding the funds on the person's behalf (as deposit collectors do), but rather because a person who upholds his or her social obligation to give or lend money within the social network will in turn find money available from that network should the need arise. Essentially, lending or giving money within one's trusted circle is savings by other means.

4. Though we had difficulty getting people to tell us that they were doing this, we could infer that they were by the fact that they would earn money one week, not spend it all, and then spend more than they earned the following week. It is worth noting that MFO study respondents were extremely reluctant to talk about cash stored at home even after many weeks of getting to know, and building genuine rapport, with the field research team. The challenges of getting an accurate picture of what is likely the savings strategy of first resort should not be underestimated by FSPs seeking to serve this market.

5. The line between the two is not always clear. In MFO's Malawi study, for example, "loans" between friends were often not repaid on any sort of schedule. Instead, the friend who lent the money might find him or herself short of cash and ask for a "loan" in return.

Table 2: Where People Save Informally

Where	How
Mattress money	Compatible with a variety of cash flows: small, regular saving up; setting aside part of a large inflow of cash; small regular withdrawals; or large lump sum withdrawals.
Networks of friends and family	Compatible with a variety of cash flows, though transaction costs, especially if friends or family are at a distance, may limit how small the amounts can be.
Informal organizations, including ROSCAs and deposit collectors	Often require regular, though small, contributions thus forcing members to manage their cash flow in such a way as to have the amount available when required.

IMPLICATIONS FOR FORMAL FINANCIAL SERVICE PROVIDERS

The Financial Diaries reveal that the number one challenge for low-income households is managing cash **flow** to cover daily and near-term predictable expenses. Accumulating a **stock** of money is a subsequent challenge that becomes relevant only once these priorities are met. Given our understanding of the way money flows through the hands of low-income people, and, relatedly, the way they save, what are the implications for formal financial service providers (FSPs) interested in serving this market?

The short answer is: The FSP must insert itself into the flow of money going through the consumer's hands in a way that the consumer finds valuable. The FSP's intermediation must either help the consumer manage cash flow or help accumulate stocks of savings. This implies that the FSP has to focus on three components of its service:

- the value proposition;
- the channel; and
- the account where the money will be saved.

Traditionally FSPs' business models have been based on the management of stocks of money, deriving profit from the spread between interest paid on savings and interest charged on loans. But if we take seriously the idea that the real value for low-income households would be help managing their flows, then FSPs need to rethink their business model: are they in the stock business or the flow business? The answer should be "both."

The emphasis in the model needs to shift from stocks alone to stocks and flows. FSPs need to think not only about how to add value in helping low-income customers manage their flows, but also how to make money doing so – by providing enough value that the customers are willing to pay for it (Box 5).

Box 5. Robert and Julie: Comingled Household / Local Business "Checking Account"

Robert and Julie operate a photo studio and to supplement that income, Julie sells baskets and other goods that she hand-weaves out of used plastic bags. The couple's business was burned to the ground during Kenya's post-election violence of 2008. "I watched my shop go down," Robert said, adding, "Whatever I had here was left to ashes." They rebuilt with the help of a neighbor who lent them a camera.

Long before, in 2002, Robert had bought his first phone to stay in closer touch with friends and family. Eight years later, their daughter bought his wife her first phone. It was supposed to be used for business purposes, but both Julie and Robert report that they routinely use it for household purposes as well.

Between May and June 2010, Julie made four deposits into her M-PESA account in the total amount of $112 and six withdrawals totaling $72. By October 2010, both Julie and Robert were actively using M-PESA on a fairly regular basis to deposit and withdraw money from photo sales. Robert made 19 deposits and 22 withdrawals, while Julie made 15 deposits and 15 withdrawals. The withdrawals, they say, were used first for food and household items and second for materials related to the business (e.g. photo supplies and weaving materials). Julie reported that she also sometimes uses M-PESA to remit money, mostly to friends, but also to relatives when they are in need.

Robert and Julie do not see M-PESA's role in their financial lives as transformative. They describe their circumstances as difficult and predict that their children's lives will be even harder. But although they are not able to save money on their phone – incoming funds sit in their M-PESA account for just a few days before being cashed out and spent – they report that M-PESA is nevertheless saving them money.

Banks in the developed world have already shifted their business model from intermediating stocks to helping customers manage flows. Credit and debit cards are ubiquitous and enable bank customers to pay for goods and services without handling cash, not only at point-of-sale terminals, but also remotely over the internet. The use of such cards along with the direct deposit of wages and salaries means that banks are at the center of their customers' "cash" flow.[6]

There is increasing interest in the developing world to replicate this developed-world experience, but there are a number of obstacles. These are related to the communications infrastructure necessary to

6. In the United States there is growing concern that FSPs are taking advantage of consumers' reliance on e-money services such as credit cards, debit cards, and on-line banking to extract excessive fees from those consumers and the retailers who serve them. This phenomenon points to the need for a sound regulatory structure – and vigorous enforcement – that ensures that there is healthy competition in the e-money market. Such regulation may not be possible in many developing countries, but it is clear that at the moment, e-money still faces stiff competition from cash, which for now may be sufficient to ensure that e-money offers value for money.

support such an activity and the dominance of informal businesses, both as employers and as retail sales outlets. They are also related to the diversity of the challenges around cash flow management that low-income people face, from managing day-to-day flows to managing lump sums that are the equivalent of a week or more of pay. All of this means that the tools an FSP offers low-income customers must be extremely flexible in order to be useful.

Mobile money – money sent to and from mobile phones through text messages and other means – offers a way round these obstacles because it piggy-backs on an existing communications system and is a personal service that does not depend on a fully-working formal economy. Mobile money has similar advantages to credit and debit cards and direct deposits in that it lowers cash-handling costs to a level at which FSP can offer a highly flexible service around the clock at a low price and still be sustainable.

But converting cash into e-money and back into cash is still expensive. Anecdotal evidence suggests that the fees Safaricom charges its customers to move cash into or out of its M-PESA e-money system only just cover operational costs – Safaricom makes its money off the fees it charges to remit e-money. And, as noted above, our data show that low-income individuals handle a lot of cash. So one potentially important part of the solution to serving the low-income market is to find ways for that market to move from cash to e-money – but then stay in the e-money system, not cash out.

Alternatively, FSPs may want to look to the informal systems already in place and analyze how they can add value to those systems so that, as money flows through those systems, it also flows through the FSP. This is essentially the model that India's banks have pursued in linking to self-help groups. The groups effectively act as deposit aggregators, informally mobilizing money among their members, and, once they have accumulated sufficient funds, depositing those in a local bank from whom they then gain access to credit as well.

This focus on the cash flows of low-income people brings to bear another critical aspect of the strategy an FSP must employ. As we noted above, low-income individuals are typically embedded in social networks through which money flows. An FSP should carefully consider its role with respect to those networks and how it might market not just to an individual, but to an individual as part of a network. This is akin to the "friends and family" marketing that mobile phone companies use for their voice services. Just as communication is a network service across the globe, so is the management of money in many low-income, developing country settings (Johnson, 2004).

The important thing to remember here is that the channel matters more than the product. Whether the FSP works with the retail customer directly or via a third-party (e.g., a mobile network operator or informal savings group), the FSP should first understand how the customer moves money into and out of an account – which in turn requires understanding where and when customers receive their inflows – before designing account terms and conditions. Once the FSP has worked out how to create a channel through which low-income people can flow their money, it can focus on account adaptations that might help low-income customers meet their various savings needs: those being, again, cash flow management, risk management, and asset accumulation.

This is, in essence, what Safaricom did with M-PESA – first building a useful channel, and then linking it to banking services, and it implies a broad change to the FSP business model. Traditional brick and mortar banks see the service delivery channel as being a necessary "cost of doing business" to enable

customers to accumulate stocks. Branchless banking and other flow-oriented innovations are demonstrating that an FSP can build a channel that customers value and use actively and then, over time, launch new uses for the channel – savings being a prime example.

CONCLUSION

We began this research note with the obvious, but often unstated, point that the act of saving must precede the accumulation of savings. As a result, an individual's cash flow is a powerful determinant of how much they save and for how long. This is borne out empirically by data from Malawi and Kenya, where people have a wide variety of cash flows and (resulting) savings patterns.

We then looked at where low-income people save, informally, and the ways in which the "where" shapes the "how." Finally, we considered what formal financial service providers might learn from these data about how, why and where low-income people save. We focused on the fact that an FSP must find a way to connect itself to the money flowing through the hands of low-income individuals, thus raising questions about their business model. We argued that if an FSP seeks to design a product to capture a flow for a particular purpose, it needs to focus first on the channel through which customers reach it, and only afterwards on the terms and conditions of the account.

There is not any one solution to the goal of helping low-income people save through formal financial service providers. The approach presented here can help FSPs think more clearly about the business we believe they must be in – channeling cash flow to help low-income individuals accumulate savings -- if they seek to serve the low-income market.

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